

1993 Documents

IEEE Neural Networks Council

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The Robert J. Marks II Library Archive

The IEEE Neural Networks Council is now the IEEE Computational Intelligence Society

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Some year's files may be misplaced in files of adjacent years.

file



Computer and Information Science

University of Otago
Te Whare Wananga o Otago

P.O.Box 56, Dunedin, New Zealand
Tel: +64 3 479-8180
Fax: +64 3 479-8311

29 January 1993

Professor R.J. Marks II,
Department of Electrical Engineering,
University of Washington,
Seattle,
Washington, 98195,
U.S.A.

Dear Professor Marks,

Thank you for your response to the announcement of the First New Zealand International Two-Stream Conference on Artificial Neural Networks and Expert Systems - ANNES'93.

I am glad to invite you to the ANNES'93 International Programme Committee. Please feel free to pass the enclosed copies of the First Call for Papers to colleagues of yours who might be interested to participate.

I will be pleased to discuss with you at a later stage some topics related to the Conference Programme and also any suggestions of yours which you think are relevant to the programme and the organisation of ANNES'93.

I also note that being on the Programme Committee does not preclude submitting a paper.

I will keep in touch with you.

Best regards.

Yours sincerely,

Dr Nikola Kasabov
ANNES'93 Program Chair

Encl.
PROGCOMPRI

FIRST CALL FOR PAPERS AND PARTICIPANTS

The First New Zealand International Two-stream Conference on Artificial Neural Networks and Expert Systems- ANNES'93

November 24-26, 1993
University of Otago, Dunedin, New Zealand

LETTER from the President of the New Zealand Computer Society:

Dear Colleague,

It has been suggested by NZCS members and members of the Expert Systems Interest Group that we should hold a conference on Expert Systems in 1993. We are now glad to invite you to participate to The First New Zealand International Two-stream Conference on Artificial Neural Networks and Expert Systems ANNES'93. The aim of the conference is to gather together scientists, industry and business representatives in order to enrich their knowledge and technological skills in developing knowledge based systems and their numerous applications. I would recommend this conference to you and urge you to attend.

*Yours faithfully,
Philip Sallis*

TOPICS OF INTEREST

- * Artificial neural networks: models; architectures; algorithms; software tools; hardware implementations; cognitive models of the brain and their impact.
- * Neural networks for problem solving: handling large experimental data bases; speech-, image- and text processing; time-series prognosis; control; diagnosis, etc.
- * Fuzzy systems: methods; tools; software and hardware implementations; fuzzy systems for problem solving.
- * Expert systems: methods for representing inexact data and uncertain knowledge; approximate reasoning; tools and systems; object-oriented systems.
- * Hybrid systems: integrating neural networks and AI-techniques; integrating neural networks and fuzzy systems; extending existing software tools with fuzzy reasoning and neural nets.
- * Industrial applications of expert systems and neural networks: manufacturing; process control; quality testing; etc.
- * Business applications of neural networks and expert systems: Finance; Economics; Marketing; Management; Banking; etc.
- * Applications of neural networks and expert systems in Agriculture, Environment protection, Medicine, Geographic information systems; and other application areas.
- * The impact of neural networks and expert systems to the future IT development.

INVITED KEYNOTE SPEAKERS

Professor Takeshi Yamakawa, Department of Computer Science and Control, Kyushu Institute of Technology, Chairman of the Fuzzy Logic Systems Institute (Japan).

Professor V.Rao Vemuri, Department of Applied Science, University of California, Davis (U.S.A.).

CALL FOR PAPERS

Papers must be received by April 30, 1993. They will be reviewed by senior researchers in the field and the authors will be informed about the decisions at the end of the review process by June 30, 1993. Final versions of the accepted papers should be submitted by 30 July 1993. A recommended size for a paper would be between 4 and 10 pages. All accepted papers will be published in the conference proceedings, which will be available at the conference for distribution to all the regular conference registrants. As the conference is a multi-disciplinary meeting the papers are required to be comprehensible to a wider rather than to a very specialised audience. Papers will be presented at the conference either in an oral or in a poster session. Please submit three (3) copies (one camera-ready original and two copies) of the paper written in English on A4-format white paper with one inch margins on all four sides, in one-column format, single-spaced, in Times or similar font of 12 points, and printed on one side of the page only. Centred at the top of the first page should be the complete title, author(s), mailing and e-mailing addresses, following by an abstract, followed by the text.

TUTORIALS

During the first day of the conference the following 3-hour tutorials will be organized:

1. The basics of artificial neural networks.
2. The basics of fuzzy systems. Fuzzy systems applications.
3. Neural networks for problem solving.
4. Expert systems- tools and systems.

These aim at providing basic knowledge in the subject area. The tutorial fee is not included in



Computer and Information Science

University of Otago
Te Whare Wananga o Otago

P.O.Box 56, Dunedin, New Zealand
Tel: +64 3 479-8319
Fax: +64 3 479-8311

Professor Robert J Marks
University of Washington
Department of Electrical Engineering
c/o 1131 199th Street S.W., Suite N
Lynnwood, WA 98036-7138
USA

8 February 1993

Dear Professor Marks,

Thank you for letter of 15 January giving me information about the NNC RIG. It is most useful to me.

I am glad also to welcome you in the Programme Committee of The First New Zealand Two-stream Conference on Artificial Neural Networks and Expert Systems ANNES'93.

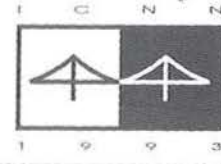
Sincerely,

Dr. Nikola Kasabov

file



1993 INTERNATIONAL CONFERENCE ON NEURAL NETWORKS
SAN FRANCISCO, CALIFORNIA, MARCH 28 – APRIL 1, 1993



E

Berenji
Program Cochair

PLEASE REPLY TO:
AI Research Branch MS 269-2
NASA / Ames Research Center
Moffett Field CA 94035, U.S.A.
Tel.: [415] 604-6070
Fax: [415] 604-3594
E.Mail: berenji@ptolemy.arc.nasa.gov

ary 12, 1993

Robert J. Marks
Active Systems Laboratory
Department of Electrical Engineering FT10
University of Washington
Seattle, WA 98195

Chair-Fuzzy Systems I.
Friday, March 29, 1993
10PM - 6:00 PM

Hi Bob,

I am writing to you to ask for your help by agreeing to chair a session at the upcoming 1993 IEEE International Conference on Neural Networks. The Organizing Committee of ICNN'93 has actively scheduled your participation in that role in the session noted above. If you are unable to chair this session, I am asking you that you contact me as soon as possible so that we can secure participation of an alternate chairperson.

The Organizing Committee asks that you carefully observe the time constraints that apply to your session and that you refrain from changing its organization as it appears in the Conference program, except to redistribute presentation times as required by absence of scheduled speakers. Sessions not originally scheduled to be presented in your session should not be used in lieu of those scheduled in the program unless such changes are approved by the General Chair of ICNN'93.

In closing, I would like, once more, to express my gratitude for your participation in ICNN'93. We look forward to seeing you in San Francisco.

Sincerely yours,

Amir R. Berenji
Technical Program Cochairman, ICNN'93



The Washington Technology Center

300 Fluke Hall, FJ-15, University of Washington, Seattle, WA 98195

ers Office

920

543-3059

bruary 9, 1992³

Robert Marks
-10
niversity of Washington
attle, WA 98185

ear Bob,

We are pleased to inform you that your proposal entitled, "S&P 500 Trading Using Spectrally Trained Neural Networks" has been awarded co-funding from WTC in the amount of \$25,000.00 for the 1991-1993 biennium. Financial Neural Networks, Inc. will be providing matching in-kind funding as described in the R&D agreement for this project. A budget account is being set up for you to cover your work as funded. Please fill out the enclosed form and send it to Randy Tanfer, the budget coordinator here at WTC.

The award is designed to implement WTC's Marketing Initiative III, Focused Technology Initiatives, a program whereby local companies can collaborate with WTC researchers to demonstrate the commercial potential of a new technology. The proposal has been reviewed and approved by the WTC Board Executive Committee, according to the policies and procedures recently established for this program. Funding for Marketing Initiative III is from the Executive Director's Initiative Fund.

We congratulate your team, Bob, for excellent work in developing this technology with such exciting commercial potential.

Sincerely,

Robert E. Center
WTC Executive Director

cc: Michael Montgomery
Lynn Fleming
Sally Jandrall
Peter Odabashian
Randy Tanfer
Mark Damborg

Logo: "The Raven" . . . a Northwest Coast Indian design symbolizing the raven as a bringer of knowledge. A computer chip and DNA chain are held in the raven's beak. Artist: Bill Holm.

Up-DATED BENEFITS RATES:

| | |
|-----------|-------|
| 01-10 | 21.40 |
| 01-20 | 24.50 |
| 01-30, 40 | .70 |
| 01-60 | 29.60 |
| 01-70 | 25.80 |
| 01-80 | 10.30 |

**THE WASHINGTON TECHNOLOGY CENTER
 1991-93 Proposed Budget**

Project Title: _____ Budget Number: _____ Date: _____
 Name: _____ Phone: _____ Mailstop: _____
 Principal Technician Name: _____ Phone: _____ Mailstop: _____

| Object Code | Name or Title* | Annual Amount | | Biennial Total | Monthly Rate | Months on Project** | FTE | Occ Code | Sal Step | Table/Grade |
|---------------------------------------|------------------------|---------------|---------|----------------|--------------|---------------------|-----|----------|----------|-------------|
| | | 1991-92 | 1992-93 | | | | | | | |
| 10 | Faculty | | | | | | | | | |
| -20 | Ex. Faculty/ Post Docs | | | | | | | | | |
| 1-30 | Teaching Assistants | | | | | | | | | |
| 1-40 | Research Assistants | | | | | | | | | |
| 01-60 | Classified Staff | | | | | | | | | |
| 01-70 | Professional Staff | | | | | | | | | |
| 01-80 | Hourly | | | | | | | | | |
| Sub-Total Salaries & Wages | | | | | | | | | | |

| | | | | |
|---------------------|----------------------|--|--|--|
| 2 | Personal Contr Svcs | | | |
| 3 | Contractual Services | | | |
| 4 | Travel | | | |
| 5 | Supplies & Materials | | | |
| 6 | Equipment | | | |
| 7 | Total Benefits*** | | | |
| 8 | Tuition | | | |
| Total Budget | | | | |

Benefit Calculations Worksheet

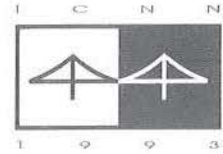
| | 1991-92 | 1992-93 | Total |
|--------------------------|---------|---------|-------|
| 01-10,20 Total x .21 = | | | |
| 01-30,40 Total x .01 = | | | |
| 01-60 Total x .27 = | | | |
| 01-70 Total x .23 = | | | |
| 01-80 Total x .08 = | | | |
| Total Benefits*** | | | |

*List name or provide title if vacant position.
 **Indicate dates if other than standard 9 month Academic year or 12 month Calendar year. (example: 4, Feb-May)
 ***Use benefit calculations worksheet to arrive at total.

Comments: _____



1993 INTERNATIONAL CONFERENCE ON NEURAL NETWORKS
SAN FRANCISCO, CALIFORNIA, MARCH 28 - APRIL 1, 1993
SECOND IEEE INTERNATIONAL CONFERENCE ON FUZZY SYSTEMS



AUDIOVISUAL REQUIREMENTS

Please complete this form and return, prior to **March 15, 1993** to:

NOMI FELDMAN, Conference Coordinator, FUZZ-IEEE'93
Meeting Management, Suite 110, 5665 Oberlin Drive, SAN DIEGO, CA 92121
Tel.: 619-453-6222 FAX: 619-535-3880

Corresponding author (as shown in our records):

Dr. Robert J. Marks
Interactive Systems Design Laboratory
Department of Electrical Engineering, FT-10
University of Washington
Seattle, WA 98198

Paper Title: Alternating Projection onto Fuzzy Convex Sets

Paper Code: FZ MOP1 OR - 4 - 2

Session Title: Fuzzy Reasoning II: Theory.
Session Day: Monday, March 29, 1993
Session Time Period: 2:00PM - 3:30PM

Name of Presenter: Robert J. Marks II

Telephone Numbers: Office: (206) 543-6990

Home: (206) 776-8995

Fax: (206) 543-3842

E. Mail: marks@u.washington.edu

AUDIOVISUAL REQUIREMENTS:

One overhead projector and one 35mm slide projector will be available in all sessions. Please indicate below other audiovisual needs.

NOTE: FUZZ-IEEE'93 Sessions are scheduled to last 90 minutes. Plenary sessions include two presentations. All other sessions generally include four presentations each lasting approximately 20 minutes.

DEADLINE: MARCH 15, 1993

THE INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS, INC.

Fuzz+
net'd 3/12/93

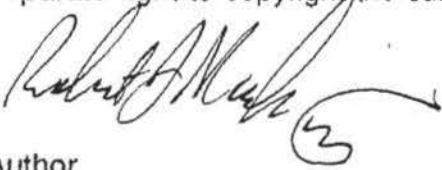
achment I

PLEASE RETURN WITH VIDEO SUBMISSION

LIMITED RIGHTS AGREEMENT

The UNDERSIGNED hereby grants to the IEEE International Conference on Neural Networks (FUZZ-IEEE'93/ICNN'93) the right to include my videotape to be presented in a compilation videotape known as "Fuzzy Logic and Neural Networks: Clips from the Field."

I am the copyright holder of such videotape and understand that I have a distinct, separate right to copyright the submission in my own name or my employer's name.



Author _____

Printed Name Robert J. Marks II

Employer University of Washington

Date 3/12/93

Return this copy to:
Beth Babeu Murray
Video Tutorial Coordinator
IEEE Educational Activities Department
445 Hoes Lane, PO Box 1331
Piscataway, NJ 08855-1331
Phone: 908-562-5499
Fax: 908-981-1686
Internet: b.babeu@ieee.org



SECOND INTERNATIONAL CONFERENCE ON FUZZY SYSTEMS
SAN FRANCISCO, CALIFORNIA, MARCH 28 - APRIL 1, 1993



Eurique H. Ruspini
General Chairman

PLEASE REPLY TO:
Artificial Intelligence Center
SRI International
333 Ravenswood Avenue
Menlo Park CA 94025, U.S.A.
Tel.: [415] 859-2314
Fax: [415] 859-3735
E-Mail: ruspini@ai.sri.com

March 8, 1993

Prof. Robert J. Marks
Interactive Systems Laboratory
Department of Electrical Engineering FT10
University of Washington
Seattle, WA 98195

Ref.: Video 106
Adaptive Fuzzy Membership Function Fusion and Annihilation
Title:

Dear Bob,

I am sorry that, once again, I must trouble you to ask for your collaboration in regards to our video program project.

We have just completed the final editing and production of our videotape with the technical assistance of the staff of the Stanford Instructional TV Network.

In order to proceed with our plans, we would appreciate if you could fill the enclosed copyright form and if you return it to the address indicated therein as soon as possible.

Sincerely yours,

Eurique H. Ruspini / S A R

Eurique H. Ruspini
General Chairman, ICNN'93 and FUZZ-IEEE'93

Encl.: Videotape Copyright Form

file

UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98195

Dept. of Electrical Engineering, FT-10
(206) 543-2150
(206) 543-3842

February, 1993

Christopher Daly
Assistant Editor, Physics & Engineering
Wiley-Interscience, Wiley-Interscience
Wiley-Interscience, Wiley-Interscience
350 Main Street
New York, New York 10010

Dear Chris:

Following is the information you requested in your letter of January 8, 1993:

Robert Jackson Marks II
1131 199th Street SW
Lynnwood, WA 98036
USA

Please add the mailstop to the business address:

Dept. of Elec. Engr. - FT-10
University of Washington
Seattle, WA 98195

Please let me know if there is any further information needed.

Sincerely,



Robert J. Marks II
Professor

Springer 

Springer-Verlag New York, Inc.
175 Fifth Avenue
New York, New York 10010
Telephone (212) 460-1500
Telex 232 235 SPB UR
Fax (212) 473-6272

January 8, 1993

Professor Robert J. Marks II
Department of Electrical Engineering, FT-10
University of Washington
Seattle WA 98195

Dear Dr. Marks,

Due to a change in German tax law, we now require your **full name** (no initials) and **complete home address** in order to issue this year's royalty payments. Please provide this information as soon as possible.

A copy of the draft royalty card is also attached for your review. Please confirm that your name, social security number, and business address are correct.

Thank you for your timely attention to this important matter.

Sincerely,



Christopher Daly
Assistant Editor, Physics & Engineering

FINAL 1992 ROYALTY CARD

CD

| <i>ISBN</i> | <i>PROJECT #</i> | <i>PUBLICATION DATE</i> | <i>CALCULATION DATE</i> | <i>DATE</i> |
|-------------|------------------|-------------------------|-------------------------|-------------|
| 97906-9 | G-545 | 14-Dec-92 | | 22-Dec-92 |

PRELIMINARY

TITLE:
STEE: Advanced Topics in Shannon Sampling and Interpolation Theory

| | | |
|-------------------|---------|-----------|
| <i>List Price</i> | \$ | <i>DM</i> |
| | \$69.00 | 128.00 |

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|----------------------|-------------------|------------------|
| <i>Total Edition</i> | <i>U.S. SHARE</i> | <i>EUP SHARE</i> |
| 800 | 300 | 500 |

Breakeven Point

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| <i>Name/SS #</i> | <i>Address</i> | <i>Royalty</i> |
|-----------------------------------|--|---|
| Robert J. Marks, II [REDACTED] | Dept. of Electrical Engineering University of Washington Seattle, WA 98195 | 8.0% of List Price to 1,000 copies sold; 10.0% thereafter |

Advances on Sales Royalty

| <i>Name</i> | <i>Date</i> | <i>Amount</i> | <i>Reason</i> |
|-------------|-------------|---------------|---------------|
|-------------|-------------|---------------|---------------|

None

UNIVERSITY OF WASHINGTON
DEPARTMENT OF ELECTRICAL ENGINEERING FT-10
SEATTLE, WASHINGTON 98195 USA

FAX: (206) 543-3842

FAX Cover Sheet

ATTENTION: Dr. Toshio Fukuda
NAME OF FIRM: Nagoya University - Dept. of Mechano-Informatics & Systems
LOCATION: Nagoya, Japan
FAX TELEPHONE NUMBER: (052) 781-9243
FROM: R. J. Marks' secretary PHONE: (206) 543-6990
This transmission, including this cover page, contains 1 pages
DATE: Fri, March 19, 1993 TIME: 2:20 pm
Please call (206) 543-6061 if you do not receive all of the pages.

I have just sent the following fax to Professor Yasuhiko Dote at
the Muroran Institute of Technology:

"Dr. Marks sends extreme regrets that he cannot come to Muroran.
His wife was just taken to the hospital and he is on his way to
the hospital now."

"He will send you e-mail as soon as he can."

UNIVERSITY OF WASHINGTON
DEPARTMENT OF ELECTRICAL ENGINEERING FT-10
SEATTLE, WASHINGTON 98195 USA

FAX: (206) 543-3842

FAX Cover Sheet

ATTENTION: Professor Yasuhiko Dote
NAME OF FIRM: Muroran Institute of Technology
LOCATION: Mizumoto-cho, Muroran JAPAN
FAX TELEPHONE NUMBER: 81-143-47-3374
FROM: Robert J. Marks' secretary PHONE: 206-543-6990
This transmission, including this cover page, contains _____ pages
DATE: Fri, March 19, 1993 TIME: 2:10 pm
Please call (206) 543-6061 if you do not receive all of the pages.

Dr. Marks sends extreme regrets that he cannot come to Muroran.
His wife was just taken to the hospital and he is on his way to
the hospital now.

I have cancelled the airline reservations and will return the
tickets to H. I. S. travel agency in New York City.

He will send you e-mail as soon as he can.

Mon Mar 18 91 10:52 PAGE 1/1

UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98195

Department of Electrical Engineering, FT-10
Telephone: (206) 543-6990 (office), 543-6061 (secretary),
543-2150 (main office), 776-8995 (home), 543-3842
(FAX).
marks@u.washington.edu

March 17, 1993

Professor Yasuhiko Dote
Muroran Institute of Technology
Muroran, Japan

Dear Dr. Dote,

I look forward to meeting you.

I have received the airline tickets. Thank you.

For my talk, I will need a VHS video tape player and
television. I can manage without one, but believe the talk
would be better with one.

Sincerely,

Robert J. Marks II
Professor

file

UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98195

*Department of Electrical Engineering, FT-10
Telephone: (206) 543-6990 (office), 543-6061 (secretary),
543-2150 (main office), 776-8995 (home), 543-3842 (FAX).
marks@u.washington.edu*

March 11, 1993

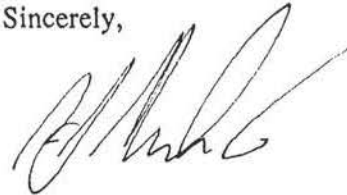
Dr. Pietro G. Morasso
University of Genova, DIST
Via Opera Pia 11A
I16145 Genova, Italy

Dear Dr. Morasso,

Thank you for your kind invitation to serve on the program committee of ICANN'94.

I gratefully accept.

Sincerely,



Robert J. Marks II
Professor

file



ELSEVIER
SCIENCE PUBLISHERS B.V.

Dr. Robert Marks
Editor, IEEE Transactions on Neural
Networks
Interactive Systems Design Laboratory
University of Washington
Seattle, WA 98195
U.S.A.

Direct line +31 (20) 5862610 (609)
Direct fax +31 (20) 5862616

Amsterdam, 5 March 1993

Dear Dr. Marks:

Herewith I would like to ask your permission to include in the book Mathematical Studies of Neural Networks, of which J. G. Taylor is the Editor, the article which Dr. Robert Hecht-Nielsen and Dharmendra Modha submitted to the Transactions on Neural Networks entitled "On Multilayer Functionals".

Of course we would duly acknowledge the source of this article in the usual way.

I understand from Dr. Hecht-Nielsen that he has already spoken with you about this matter, and that you have agreed with inclusion of the article in question in our book.

I look forward to hearing from you, and would you please send me an IEEE Copyright Permission form.

With kindest regards,

Sincerely yours,

Drs. A. Sevenster
Associate Publisher

cc: J. G. Taylor
R. Hecht-Nielsen

Mathematics, Computer Science & Cognitive Science Department

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Office Address: Sara Burgerhartstraat 25, 1055 KV Amsterdam, The Netherlands

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Robert J. Marks II Library Archive



IEEE TRANSACTIONS ON NEURAL NETWORKS
IEEE NEURAL NETWORKS COUNCIL

March 17, 1993

Drs. A. Sevenster, Associate Editor
Elsevier
FAX 011 31205682616

Dear Dr. Sevenster,

I am responding to your letter dated March 5, 1993

I have been in contact with IEEE concerning Dr. Hecht-Nielson's contribution and your desire to publish it.

IEEE, as copyright owner, has personnel for transferring copyrights.

I have explained your request to Ms. Phyllis Hall, Director of IEEE Publishing services. She will talk to you about IEEE copyright transfer, or, you may directly contact Bill Hagen in IEEE's Rights and Permissions Department.

Ms. Phyllis Hall, Director
IEEE Publishing Services
445 Hoes Lane
P.O. Box 1331
Piscataway, NJ 08855-1331
FAX (908) 981 8062
Phone 908 562 3998
p.hall@ieee.org

Sincerely,

Robert J. Marks, Editor-in-Chief
IEEE Transactions on Neural Networks

cc: Ms. Phyllis Hall



IEEE Hong Kong Chapter of Signal Processing

file URGENT

CHAIRMAN

Prof. Wan-Chi Siu
Department of Electronic Engineering
Hong Kong Polytechnic
Hong Kong
Tel : (852)7666229

Prof. Robert J. Marks
Dept. of Electrical Engineering,
University of Washington,
Seattle, WA, USA.

Dept. of Electronic Engineering,
Hong Kong Polytechnic,
Hung Hom, Kowloon,
Hong Kong.

VICE CHAIRMAN

Dr. H.T. Tsui
Department of Electronic Engineering
The Chinese University of Hong Kong
Shatin, N.T.
Tel : (852)6096399

Dear Prof. Marks,

April 1, 1993.

SECRETARY

Mr. Kin-Man Lam
Department of Electronic Engineering
Hong Kong Polytechnic
Hong Kong
Tel : (852)7666220

Re : *International Conference on "Neural Networks, Speech
and Image Processing"*

organised by the IEEE H.K. Chapter of Signal Processing

13-15 th April, 1994, Hong Hong.

An Invitation to join our International Advisory Committee

TREASURER

Dr. Chorkin Chan
Department of Computer Science
University of Hong Kong
Pokfulam Road, Hong Kong
Tel : (852)8597075

Please refer to Prof. Siu's letter of March 13, 1993 for inviting you to join the International Advisory Committee for the captioned Conference. I would like to remind you that we have not received your reply yet. It would be greatly appreciated if you could send your reply immediately by fax (852-3628439) or email (enwcsiu@hkpsc.hkpc.hk)*. An additional reply form is also included for your convenience.

PROGRAM CHAIRMEN

Dr. Oscar Au
Dept. of Electrical & Electronic Engg.
The Hong Kong University of Sci. & Tech.
Clear Water Bay, Hong Kong.
Tel : (852)3587053

Dr. P.C. Ching
Department of Electronic Engineering
The Chinese University of Hong Kong
Shatin, N.T.
Tel : (852)6096380

Dr. S.H. Leung
Department of Electronic Engineering
City Polytechnic of Hong Kong
83 Tat Chee Avenue
Kowloon Tong, Hong Kong
Tel : (852)7887784

I am looking forward to hearing from you soon.

Prof. T.S. Ng
Dept. of Electrical & Electronic Engg.
University of Hong Kong
Pokfulam Road, Hong Kong
Tel : (852)8592710

Yours sincerely

Mr. Kai-Ming Tse
Department of Electronic Engineering
Hong Kong Polytechnic
Hong Kong
Tel : (852)7666214

Kenneth K.M. Lam
Secretary, Conference Organising Committee

PUBLICITY CHAIRMAN

Dr. Andrew Luk
Department of Electronic Engineering
City Polytechnic of Hong Kong
83 Tat Chee Avenue
Kowloon Tong, Hong Kong
Tel : (852)7887783

- c.c. Prof. W.C. Siu, Co-General Chairman of the Organising Committee
Dr. P.C. Ching, Co-General Chairman of the Organising Committee
Dr. Chorkin Chan, Chairman of the Technical Programs Committee

*Should you have sent us your reply, please ignore this letter.

MEMBERSHIP CHAIRMAN

Dr. W.H. Lau
Department of Electronic Engineering
City Polytechnic of Hong Kong
83 Tat Chee Avenue
Kowloon Tong, Hong Kong
Tel : (852)7887783

STUDENT ACTIVITY CHAIRMAN

Dr. Wai-Kuen Cham
Department of Electronic Engineering
The Chinese University of Hong Kong
Shatin, N.T.
Tel : (852)6096382

THE INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS, INC.



IEEE Hong Kong Chapter
of Signal Processing

International Conference on
NEURAL NETWORKS, SPEECH &
IMAGE PROCESSING

April 13-15, 1994
Hong Kong Convention & Exhibition Centre

Please return this form on or before March 31, 1993 by FAX or Speed-post.

International Advisory Committee - Reply Form

To : Prof. W.C. Siu
Dept. of Electronic Engineering,
Hong Kong Polytechnic,
Hung Hom, Kowloon,
Hong Kong.
FAX : (852)-3628439
email : enwcsiu@hkpc.hk

From : Prof. Robert J. Marks
Dept. of Electrical Engineering,
University of Washington,
Seattle, WA, USA.

Please be advised that I accept/can not accept your invitation to join the International Advisory Committee for the IEEE International Conference on Neural Networks, Speech and Image Processing to be held in Hong Kong, April 13-15, 1994.

My areas of research interest are shown below.

Signature _____
(Prof. Robert J. Marks)

Date _____

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Prof. Robert J. Marks
Dept. of Electrical Engineering,
University of Washington,
Seattle, WA, USA.

Dept. of Electronic Engineering,
Hong Kong Polytechnic,
Hung Hom, Kowloon,
Hong Kong.

Dear Prof. Marks,

March 12, 1993.

Re : *International Conference on "Neural Networks, Speech
and Image Processing"*

organised by the IEEE H.K. Chapter of Signal Processing

13-15 th April, 1994, Hong Hong.

An Invitation to join our International Advisory Committee

The IEEE Hong Kong Chapter of Signal Processing is going to hold the IEEE International Conference on Neural Networks, Speech and Image Processing on 13-15th April, 1994 in the Hong Kong Convention & Exhibition Centre. This international event is expected to attract over 350 overseas and local participants and is aimed at promoting original contributions in the specialised fields of Neural Networks, Speech and Image Processing. It is also expected that we would accept some good review papers for inclusion to the Conference.

To ensure the quality of this Conference, the Organising Committee would like to invite reputable experts/scholars/leaders in related areas, such as your goodself, from overseas to join our International Advisory Committee, the constitution of which is expected to be over twenty experts from all over the world.

As highly recommended by the undersigned, Co-General Chairman of the Organisation Committee for the Conference, and unanimously supported by the Conference Organising Committee, it is our honour to extend our invitation to you to join the International Advisory Committee for the Conference.

THE INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS, INC.

The major responsibilities for a member of this committee include (a) to advise and to recommend the areas of interest for the Conference; (b) to advise the technical committee on ways to attract quality papers and to improve the Conference organisation; (c) to review a few papers relevant to your expertise and (d) to help encouraging paper submission and Conference participation. Furthermore, we would be most delighted if you would honour the Conference by coming to chair a session. Please let us know if you can make the arrangement. A Provisional Arrangement for the Conference is enclosed for your reference.

We trust that your contribution will enlighten the Conference and benefit all participating parties. We await your favourable reply as soon as possible (a reply form is enclosed). However due to the very tight schedule for issuing the "1st Call for Papers", we would very much like to receive your reply by not later than March 31, 1993, if possible, and would also like to have your comments and advice on your areas of interest for the Conference.

We look forward towards seeing your reply.

Yours sincerely,



W.C. Siu (Prof.)
Chairman, Conference Organising Committee

c.c. Dr. P.C. Ching, Co-General Chairman of the Organising Committee
Dr. Chorkin Chan, Chairman of the Technical Programs Committee



IEEE Hong Kong Chapter
of Signal Processing

**International Conference on
NEURAL NETWORKS, SPEECH &
IMAGE PROCESSING**

April 13-15, 1994
Hong Kong Convention & Exhibition Centre

Please return this form on or before March 31, 1993 by FAX or Speed-post.

International Advisory Committee - Reply Form

To : Prof. W.C. Siu
Dept. of Electronic Engineering,
Hong Kong Polytechnic,
Hung Hom, Kowloon,
Hong Kong.
FAX : (852)-3628439
email : enwcsiu@hkpcc.hkp.hk

From : Prof. Robert J. Marks
Dept. of Electrical Engineering,
University of Washington,
Seattle, WA, USA.

Please be advised that I accept/can not accept your invitation to join the International Advisory Committee for the IEEE International Conference on Neural Networks, Speech and Image Processing to be held in Hong Kong, April 13-15, 1994.

My areas of research interest are shown below.

Signature _____
(Prof. Robert J. Marks)

Date _____



**IEEE Hong Kong Chapter
of Signal Processing**

**International Conference on
NEURAL NETWORKS, SPEECH &
IMAGE PROCESSING**

April 13-15, 1994
Hong Kong Convention & Exhibition Centre

March 12, 1993

Some points about 1994 International Conference on Neural Networks, Speech & Image Processing

Name of Conference : International Conference on Neural Networks, Speech & Image Processing

Date : April 13-15, 1994

Place : Hong Kong Convention & Exhibition Centre

- this is one of the most important and biggest international events of this nature that has ever been held in Hong Kong
- it is expected to have about 350 scholars / researchers / scientists / engineers / managers to take part in the event and more than 200 of them will come from overseas
- it is expected to have 300 - 500 submissions to this Conference, about 150-250 of the papers will be accepted
- most top researchers and engineering participants of the related fields in Hong Kong will join the event
- it is expected that most important manufacturers/makers on Computer/Microprocessor / DSP (especially for those with offices in Asia) will support the event
- the Conference is purposely arranged to be held immediately before the ICASSP'94* such that speakers and attendees can participate both conferences on a single trip
- the event is organised by the IEEE Hong Kong Chapter of Signal Processing and is expected to be fully supported by the IEEE Hong Kong Section and IEEE headquarter in USA.

*ICASSP'94 (International Conference on Acoustics, Speech and Signal Processing) will be held in April 19-22, 1994 at Adelaide, Australia.

UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98195

Department of Electrical Engineering, FT-10
Telephone: (206) 543-6990 (office), 543-6061 (secretary),
543-2150 (main office), 776-8995 (home), 543-3842
(FAX).
marks@u.washington.edu

April 1, 1993

Prof. W.C. Siu
Dept. of Electronic Engineering
Hong Kong Polytechnic
Hung Hom, Kowloon
Hong Kong
FAX 852 3628439

Dear Dr. Siu,

Thank you for your kind invitation to join the
International Advisory Committee
for the IEEE International Conference on Neural
Networks, Speech and Image
Processing. I am pleased to accept.

Sincerely,

Robert J. Marks II
Professor



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14 April 1993

Professor Robert J. Marks
University of Washington
Department of Electrical Engineering
Seattle, WA 98195

Dear Prof. Marks:

Congratulations, *The Electrical Engineering Handbook* has been published! This book is the result of a tremendous effort on the part of authors, editors, and advisors. As a result of this effort we have published a handbook which represents a milestone in the field of electrical engineering.

As a contributor to this project, you will receive a complimentary copy of the book. The handbook will be in our warehouse and available for distribution by Monday, April 19th. You should receive your copy at the end of the month. I am very anxious for you to receive a copy of the handbook because I am quite certain you will be pleased with the outcome of this project. I am always interested in your comments, so please feel free to call me.

Prof. Marks, I cannot thank you enough for your contribution and your continuous support during this project. It took the support of over 250 people like yourself to produce this handbook which will be the leading reference for electrical engineers for the next decade.

Thank you again and continued best wishes.

Sincerely,

Kristen Peterson
Developmental Editor

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ARLINGTON, VA 22217-5660

A handwritten signature or set of initials, possibly "J. Lau", written in dark ink.

IN REPLY REFER TO
December 15, 1992

Professor Robert J. Marks II
Interactive Systems Design Laboratory
Dept. of Electrical Engineering, FT-10
University of Washington
Seattle, WA 98195

Dear Bob Marks:

I want to thank you for helping me to achieve one of my life's goals, and that is to become a Fellow of the IEEE. I just got the letter from IEEE Headquarters. Thanks again for your support.

By the way, the INNS election is over and I am very disappointed that I did not get elected to any INNS office. I guess I just don't have the constituency in INNS to get elected. Either that or there is a strong anti-government sentiment. Oh well, that is life, sometimes things go your way sometimes they don't.

In the IEEE, however, my election to the CAS Board of Governors still has a year to go, so I am still serving my professional community. Now that I am an IEEE Fellow but got kicked in the butt by the INNS, you can guess where I will be investing my extra energy.

I wish you the happiest Holidays and the best New Year!

Sincerely yours,

A handwritten signature in cursive script, reading "Clifford Lau".

Clifford Lau
Acting Director, Electronics Division



Empresa Nacional de
Electricidad SA

Príncipe de Vergara, 187
28002 Madrid
Tels. (91) 563 09 23
563 10 42 - 563 38 49

file

Telegrama ENDESAMAD
Telex 22917 ENE
Fax (91) 563 81 81

Robert J. Marks II, Ph.D.
University of Washington
Department of Electrical Engineering

Madrid, 4th of March of 1993

Dear Mr. Marks,

After some time from your course in Madrid, we have found two possible applications of Neural Networks in the Department of ENDESA we are working for.

The first of this applications is the prediction of the direction and the intensity of the smoke in thermal plants, based on the measurements we have from the environmental control systems. The second one is the prediction of hydro magnitudes for the scheduling of hydro plants and reservoirs.

We have been thinking in using your Neural Network program, we were practising with during the course, for testing the mentioned applications and it should be very useful if you could send us a copy of that program.

The address is:

ENDESA
Miguel A. López
Príncipe de Vergara, 187
28002 Madrid
SPAIN

Thanks for your attention,

A handwritten signature in cursive script that reads "Miguel A. López".

Miguel A. López

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Computer Society Press



Jon T. Butler
Editor-in-Chief

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cspres@ece.nps.navy.mil

April 6, 1993

Prof. Robert J. Marks 95
University of Washington
Dept. of Electrical Engineering
Seattle, WA 98195 U.S.A.

RE: Author(s): **V. R. Vemuri and R. D. Rogers**
Title: **Artificial neural networks: Forecasting time series**
Manuscript No.: **3008-1**
Due Date: March 31, 1993

Dear Prof. Marks:

As you may recall, we asked you to review the manuscript cited above. However, in order to insure the author of a timely reviewing procedure, we requested that you respond by **March 31, 1993**. Please note that the due date has passed. Your review is valuable in making a decision as well as providing feedback to the author(s). I hope that you can review the manuscript, but I need to know as soon as possible. I look forward to receiving your completed REVIEW FORM FOR MANUSCRIPTS promptly, but in any event, inform me as to what your decision is.

There is a \$50 honorarium for a thorough review of the manuscript received by the deadline. However, no honorarium will be awarded for reports received after the decision has been made.

Sincerely yours,

Jon T. Butler



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ICANN'94 Sorrento - Italy
May 26-29, 1994

From: Pietro G. Morasso, co-chair of *ICANN'94-Sorrento*
University of Genova, DIST (Dept. of Informatics, Systems, Telecommunication)
Via Opera Pia 11A, 116145 Genova, Italy
Tel: +39 10 3532749 - Fax: +39 10 3532948 - Email: pmorasso@dist.unige.it
To: R. J. MARKS
fax: 001-206-543 3842
Number of pages (including this one): 1
Date: 31/3/93

Dear Colleague,

Eduardo Caianiello and I have the pleasure of inviting you to join the Program Committee for the European Conference of ENNS next year, ICANN'94, which will be held at Sorrento and is sure to attract the best and brightest of the Neural Network community.

As a member of the committee you will be asked to chair a session, to open it with your (invited) talk and to help with the reviewing process.

The sessions (we expect to have 24 official ones) will be defined after collecting all the accepted contributions; as you will see from the call for papers (which is being sent to you), the contributions will be classed by applicants with two parameters

- scientific area (A-Cognitive Science; B-Mathematical Models; C-Neurobiology; D Fuzzy Systems; E-Neurocomputing)
- application domain (1-Motor Control; 2-Speech; 3-Vision; 4-Natural language; 5-Process Control; 6-Robotics; 7-Signal Processing; 8-Pattern Recognition; 9-Hybrid Systems; 10-Implementation)

so as to expedite the reviewing process and the allocation into sessions.

We really hope that you can make it! Do please let us know your answer at your earliest convenience.

Best regards

P. G. Morasso

Pietro G. Morasso

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Masao Ito
Frontier Research Program
RIKEN, Wako
Saitama 351-01
JAPAN

For Russian Conference

sent 7/26/93

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June 30, 1993

Prof. Robert J. Marks II
Dep't. of Engineering
University of Washington
Lynnwood, Washington

As you may already know, Asian Neural Network Assembly (ANNA) is planned to be formed as a collaborative assembly of neural network organizations in Asian countries. The first international conference sponsored by the ANNA, International Conference on Neural Information Processing (ICONIP'94), is scheduled on October 17 - 20, 1994, in Seoul, Korea, in cooperation with INNS, ENNS, and IEEE NNC. Prof. Shun-ichi Amari co-chairs the conference and prof. Seung Yang Bang(POSTECH) takes charge of the organizing chair. We hope this ICONIP will substitute the IJCNN in the Asian region.

To organize a successful conference we would like to ask your help. As a world leader on neural networks, you are cordially invited to the International Advisory Committee of the ICONIP'94-Seoul. It is a voluntary position, and no specific work will be required. However, we would like to hear and will always welcome constructive advices from the committee members. Please accept our invitation and let your professional knowledge and experiences help us to make the conference very successful.

Please inform me of your decision at your earliest convenience. Since we do not have much time to determine the International Advisory Committee, your prompt response will be greatly appreciated. As a matter of fact, if possible, we would like to fix the Committee members by July 5(Monday). If you have any questions or comments, please do not hesitate to contact me at

Myung Won Kim, Ph.D.
Research Department,
Electronics & Telecommunications Research Institute
P.O. Box 8, Daeduk Science Town
Daejeon, Korea 305-606
Tel: +82-42-860-6856 Fax: +82-42-860-5033 E-mail: mkim@ard.etri.re.kr

This is a preliminary enquiry and the official invitation letter will be sent to you soon. Again your prompt response will be very much appreciated.

Best Regards,

Myung Won Kim, Ph. D.
Program Co-Chairs, ICONIP'94-Seoul
President, IEEE NNC RIG-Korea

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IEEE Hong Kong Chapter
of Signal Processing

International Symposium on
SPEECH, IMAGE PROCESSING
& NEURAL NETWORKS,
April 14-16, 1994
Hong Kong Convention & Exhibition Centre

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EE, HKU, H.K.
HKUST, H.K.

H.K.

8th July, 1993.

Prof. R.J. Marks,
Dept. of Electrical Engg.,
University of Washington,
Seattle, Washington, U.S.A.

Dear Prof. Marks,

Thank you for agreeing to be an International Advisor of our 1994 International Symposium on Speech, Image Processing & Neural Networks. Please find enclosed 20 copies of the final Call-for-Paper and stationary. It would be greatly appreciated if you can distribute these Call-for-Papers to your colleagues who might have an interest to participate.

Yours sincerely,

Chorkin Chan
Program Chairman

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445 HOES LANE, P. O. BOX 1331, PISCATAWAY, NJ 08855-1331, U.S.A. (908) 562-3900 TELEX 833-233 FAX (908) 562- 571

TO: Bob Marks
COMPANY: University of Washington
FAX: (206) 543-3842
FROM: Pat Thompson, Administrative Assistant *Pat*
TAB Products
SUBJECT: IJCNN '93
DATE: July 22, 1993

Total number of pages, including cover letter: 3

Our fax number: (908) 562-1571

I was wondering if you could help me on this conference. I am having a hard time explaining to them that the copyright can not be held by several organizations. It either has to be one of their's or the IEEE.

As you can see by the attachments, I am not getting this across to them. Can you please help me?

You can either e-mail (p.thompson@ieee.org), telephone (908-562-3872) or fax me back at the number above.

Thank you.

JUL-22-93 THU 7:40 TEC. ACT. & STDS.
93年 7月22日 14時06分: 東京大学 工学部

FAX NO. 9085621571

P. 02

July 22, 1993

Mr. Pat Thompson
Administrative Assistant
TAB Products
The IEEE Inc.

445 Hoes Lane, P.O. BOX 1331
Piscataway NJ 08855-1331 USA
908-562-3875
908-562-1571FAX

Professor Kazuo Yana
Publication committee member
IJCNN'93
Dept. EE, Hosei University
Koganei Tokyo 184 JAPAN
+81-423-87-6188
+81-423-87-6122FAX
kyana@isp.hosei.ac.jp


On the copyright of the proceeding of IJCNN'93

(1) On the above issue, I was told from Prof. Fukuda, Steering Committee Chair of IJCNN'93, that the copyright will be shared by several organizations since IJCNN is a joint conference, and IEEE will going to hold 1/3 of copyright. He also told me that he is trying to get approval on this proposal regarding to copyright from the President IEEE.

I am sending the 'copyright transfer form' which was already sent out to authors. I am not sure such kind of copyright holding is legally valid. Will it be obstacle for you to put the procedure forward to assign catalog number and obtaining library of congress number?

(2) Please let me know the ISBN number you have assigned to the proceeding.

Thank you for your attention!


Kazuo Yana

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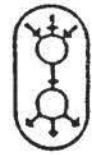
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e-mail: marks@milton.u.washington.edu

April 20, 1993

Roy S. Nutter, Jr.
West Virginia University
821 Electrical Engineering
P. O. Box 6101
Morgantown, WV 26506

Dear Roy:

Enclosed is an IEEE Expense Report for Professor Marks' travel to San Francisco for an AdCom-Meeting of the Neural Networks Council in March, 1993. *Sub # 64.00*

Please request that a check be issued to me and sent to the University address..

Sincerely,

A handwritten signature in cursive script, appearing to read 'Ruth'.

Ruth A. Wagner
Secretary to
Robert J. Marks II
Past President

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EXPENSE REPORT FOR PERIOD ENDING

April 15, 1993

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| BELOW FOR ACCOUNTING DEPT. USE ONLY | | |
| VENDOR NO. | DISTRIBUTED BY | APPROVED BY |

**PROVIDE DETAILS BELOW OF SUMMARY EXPENSES
 AS REPORTED ON FRONT OF THIS REPORT**

TAXI - BUS (1)

| DATE | AMOUNT | FROM | TO |
|---------|--------|-----------------------|-----------------------|
| 3/26/93 | 21.00 | home - Lynnwood, WA | Seattle airport |
| " | 21.50 | San Francisco airport | Hotel |
| 4/1 | 8.00 | Hotel | San Francisco airport |
| 4/2 | 21.00 | Seattle airport | Home - Lynnwood, WA |
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MEALS - SELF (2)

| DATE | AMOUNT | BREAKFAST | LUNCH | DINNER | SOCIAL |
|------|--------|-----------|-------|--------|--------|
| 3/26 | 18.90 | | | 18.90 | |
| 3/27 | 54.21 | 7.80 | 12.25 | 17.34 | 16.82 |
| 3/28 | 40.88 | 8.93 | 10.72 | 21.23 | |
| 3/29 | 53.91 | 6.44 | 11.34 | 17.41 | 18.72 |
| 3/30 | 45.55 | 10.72 | 9.55 | 12.93 | 12.35 |
| 3/31 | 17.94 | 8.24 | 9.70 | | |
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MEALS - OFFICIAL GUEST (3)

| DATE | AMOUNT | NAME/NAMES OF GUEST | PURPOSE OF MEETING |
|---------|--------|---|--|
| 3/27/93 | 134.14 | C. Robinson R. Eberhart P. Simpson D. Wunsch J. Zurada W. Snyder K. Kaines R. Snyder | Past President's Reception: AdCom Members |
| 3/31 | 28.97 | | Mtg. with Don Wunsch, Chair and RIGS Chair Alan |
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UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98195

Department of Electrical Engineering, FT-10
Telephone: (206) 543-2150
FAX: (206) 543-3842

April 22, 1993

Ms. Marilyn Prusan, Administrator
IEEE TAB Finance
P. O. Box 1331
Piscataway, NJ 08855-1331

Dear Marilyn:

Enclosed is a copy of an expense report I forwarded to Roy Nutter for Robert J. Marks II for the recent trip to San Francisco which will be forwarded to your office shortly. I did not attach the plane ticket or explanatory letter as we discussed. As these do not affect Dr. Nutter's use of the document I decided to forward them directly to you. Sorry for the inconvenience of your having to hold them.

Not only has work been heavy the past few weeks, but I got married on March 27 and my daughter got married this past weekend. Maybe it's good that we don't know in advance how much events are going to affect us; i.e. it's been a bit of a struggle to keep all the balls up in the air and a few have gone plunk. I tell myself it's okay as long as I realize which are the ones dropped and take corrective action when necessary.

Sincerely,



Ruth Wagner Bennett
Secretary to R. J. Marks II

April 22, 1993

Subject: Expense Report for period ending April 15, 1993 for Robert J. Marks II
Explanation of plane fare

Prof. Marks went to San Francisco for an IEEE meeting and then had an engagement in Lubbock for a University-related event. The cheapest way to book the total trip was from Seattle to Reno to San Francisco and then to Lubbock. Therefore, Dr. Marks has requested round trip reimbursement to and from San Francisco from IEEE, which would have been \$330 had it been booked for that portion of the trip only.



SALES PERSON: JT

ITINERARY/INVOICE NO. 0000514
 RKMZGA

DATE: 11 MAR
 PAGE: 01

CUSTOMER INVOICE

TO: DR ROBERT MARKS
 University of Washington
 Dept of Electrical Engineering ft-10

TERMS: The invoice below represents an immediate transfer of funds on your behalf and is payable within 5 days unless prior credit arrangements have been made. Overdue accounts are subject to 1 1/2% per month interest from date of invoice.

FOR: MARKS/ROBERT, DR

| | | | | | |
|----------------------|-----|--------------------|-----------------------------|---------|---------------------|
| 26 MAR 93 - FRIDAY | AIR | RENO AIR | FLT:204 | ECONOMY | EQP: MD-80 |
| | | LV SEATTLE TACOMA | | 1100A | NON-STOP |
| | | AR RENO | | 1235P | |
| | AIR | RENO AIR | FLT:303 | ECONOMY | EQP: MD-80 |
| | | LV RENO | | 205P | NON-STOP |
| | | AR SAN FRANCISCO | | 305P | |
| 01 APR 93 - THURSDAY | AIR | SOUTHWEST AIRLINES | FLT:456 | COACH | EQP: BOEING 737 500 |
| | | LV SAN FRANCISCO | | 630A | NON-STOP |
| | | AR PHOENIX | | 915A | |
| | AIR | SOUTHWEST AIRLINES | FLT:920 | COACH | EQP: BOEING 737 500 |
| | | LV PHOENIX | | 1100A | 1-STOP |
| | | AR LUBBOCK | | 220P | |
| AIR TICKET | | QQ7728126899 | MARKS ROBERT DR | | |
| | | | BILLED TO AX378743691952005 | | 347.0 |
| | | | | | ----- |
| SUB TOTAL | | | | | 347.0 |
| NET CC BILLING | | | | | 347.0 |
| | | | | | ----- |
| TOTAL AMOUNT DUE | | | | | 0.0 |

FARE PER ABOVE WILL BE 347.00 AND ITS NON-REFUNDABLE AFTER

| | | | | | |
|--|--|---|--|--|--|
| I ACKNOWLEDGE RECEIPT OF THIS TICKET(S) AND/OR COUPONS FOR RELATED CHARGES DESCRIBED HEREON. PAYMENT IN FULL TO BE MADE WHEN BILLED OR IN EXTENDED PAYMENTS IN ACCORDANCE WITH STANDARD POLICY OF COMPANY ISSUING CARD AND AS REFLECTED IN APPLICABLE TARIFFS. | | UNIVERSAL CREDIT CARD CHARGE FORM | | DATE AND PLACE OF ISSUE | |
| CARRIER CODE 384-QQ | | 1. CARDHOLDER COPY | | STANG TRAVEL SERVICE INC | |
| DATE OF ISSUE 11 MAR 93 | | IF EXTENDED PAYMENT APPLICABLE, CIRCLE NO. OF MONTHS 3 6 9 12 | | SEATTLE WA | |
| NAME OF PASSENGER IF OTHER THAN CARDHOLDER x Robert Marks JT | | OTATO NO. | | APPROVAL CODE 22 | |
| COMPLETE ROUTING SEATTLE RENO SAN FRANCISCO PHOENIX LUBBOCK | | FARE BASIS XX | | CONNECTION OF PASSENGER WITH SUBSCRIBER QQ | |
| SERIAL NO. 384-7728 126 899 | | TICKETS NOT TRANSFERABLE NO CASH REFUNDS | | 378743691952005 | |
| FARE 312.73 | | CREDIT CARD NAME/CODE AX | | | |
| TAX 34.27 | | | | | |
| TOTAL \$347.00 | | | | | |

1993 IEEE Neural Networks Council Document
 Robert J. Marks II Library Archive

STANDARD TRAVEL
PSCR GPN
 SEATTLE WA

PASSENGER NAME: MARKS ROBERT JR
 NOT TRANSFERABLE

| NO | FROM | NOT GOOD FOR PASSAGE | CARRIER | FLIGHT | CLASS | DATE | TIME | FARE BASIS | DESIGNATOR | NOT VALID BEFORE | NOT VALID AFTER | ALL |
|----|---------|----------------------|---------|--------|-------|-------|------|------------|------------|------------------|-----------------|-----|
| 1 | SEATTLE | TALOMH | DL | 207 | H | 03SEP | 1100 | DL | Y | | | |
| 2 | SEATTLE | RENO | DL | 207 | H | 03SEP | 1050 | DL | Y | | | |
| 3 | SEATTLE | FRANCSFO | DL | 207 | H | 03SEP | 1100 | DL | Y | | | |
| 4 | SEATTLE | RENO | DL | 207 | H | 03SEP | 1050 | DL | Y | | | |

FARE: 1118.00
 FARE CALCULATION: 1118.00
 TAX: 37.00
 TAX: 37.00
 TAX: 37.00
 TOTAL: 1231.00

FORM OF PAYMENT:
 TOUR CODE:
 ORIGINAL DATE: 09/03/93

ISSUED: 09/03/93
 9499930846X

394 7728126899 3 □

DO NOT MARK OR WRITE IN THE WHITE AREA ABOVE

031320

IEEE, 345 East 47th Street, New York, N.Y. 10017-2394, U.S.A.

07-MAY-93 CUST. ACCT. NO. VENDOR NAME Marks, Robert J II VENDOR NO. 06402291

| INVOICE NO. | INVOICE DATE | DESCRIPTION | DISCOUNT AMOUNT | NET AMOUNT |
|-------------|--------------|-----------------------------|-----------------|------------|
| 8-APR-93 | 28-APR-93 | Editorial Expenses Trans NN | .00 | 580.59 |

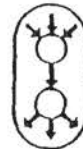
\$.00 \$580.59

PLEASE DETACH AND RETAIN THIS STATEMENT AS YOUR RECORD OF PAYMENT

Thank You



NEURAL NETWORKS COUNCIL



Roy S. Nutter, Jr.
Treasurer

PLEASE REPLY TO:
West Virginia University
Department of Electrical and
Computer Engineering
821 Engineering Sciences Bldg.
P.O. Box 6101
Morgantown, WV 26506-6101 USA
Tel: (304) 293-6371 Ext. 510
Fax: (304) 293-5024
E-mail: rsn@a.coe.wvu.wvnet.edu

April 18, 1993

Marilyn Prusan
Finance Administrator
IEEE Technical Activities
445 Hoes Lane
P.O. Box 1331
Piscataway, NJ 08855-1331

Dear Ms. Prusan:

Attached you will find an invoice for \$580.59 from Robert J. Marks for expenses related to the Editors duties for the Transactions on Neural Networks. Please pay him for these and charge these expenses to the Transactions on Neural Networks.
Please mail this to:

Robert J. Marks
Interactive Systems Design Laboratory
Department of Electrical Engineering, FT-10
University of Washington
Seattle, WA 98198

If you have any comments or questions, please do not hesitate to contact me.

Sincerely,

A handwritten signature in cursive script, appearing to read 'R. S. Nutter'.

Roy S. Nutter
NNC Treasurer

Attachments: Invoice and receipts from Dr. Marks
cc: Robert J. Marks

EE 345 East 47th Street, New York, N.Y. 10017-2394, U.S.A.

027564

09-MAR-93 CUST. ACCT. NO. VENDOR NAME Marks, Robert J II VENDOR NO. 06402291

| INVOICE NO. | INVOICE DATE | DESCRIPTION | DISCOUNT AMOUNT | NET AMOUNT |
|-------------|--------------|--|-----------------|------------|
| -JAN-93 | 02-MAR-93 | Expense report for period ending 1/31/93. | .00 | 735.11 |

rec'd 3/12/93

\$.00 \$ 735.11

PLEASE DETACH AND RETAIN THIS STATEMENT AS YOUR RECORD OF PAYMENT

Thank You

IEEE 345 East 47th Street, New York, N.Y. 10017-2394, U.S.A.

025870

09-FEB-93 CUST. ACCT. NO. VENDOR NAME Marks, Robert J II VENDOR NO. 06402291

| INVOICE NO. | INVOICE DATE | DESCRIPTION | DISCOUNT AMOUNT | NET AMOUNT |
|-------------|--------------|--|-----------------|------------|
| 18-DEC-92 | 02-FEB-93 | Expense report for period ending 12/18/92. Scottsdale TAB | .00 | 877.59 |
| | | | \$.00 | \$877.59 |

PLEASE DETACH AND RETAIN THIS STATEMENT AS YOUR RECORD OF PAYMENT

Thank You

IEEE 345 East 47th Street, New York, N.Y. 10017-2394, U.S.A.

025703

05-FEB-93 CUST. ACCT. NO. VENDOR NAME Marks, Robert J II VENDOR NO. 06402291

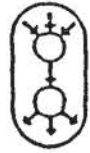
| INVOICE NO. | INVOICE DATE | DESCRIPTION | DISCOUNT AMOUNT | NET AMOUNT |
|-------------|--------------|---|-----------------|------------|
| 19-JAN-93 | 19-JAN-93 | EXPENSE REIMBURSEMENT <i>Expenses related to TNN</i> | .00 | 359.30 |
| | | | \$.00 | \$ 359.30 |

PLEASE DETACH AND RETAIN THIS STATEMENT AS YOUR RECORD OF PAYMENT

Thank You



NEURAL NETWORKS COUNCIL



Robert J. Marks II
Past President

PLEASE REPLY TO:
Interactive Systems Design Laboratory
Department of Electrical Engineering, FT-10
University of Washington
Seattle, WA 98198 USA
Tel: (206) 543-6990 (O)
Tel: (206) 776-8995 (H)
Fax: (206) 543-3842
e-mail: marks@milton.u.washington.edu

February 1, 1993

Roy S. Nutter, Jr.
West Virginia University
821 Electrical Engineering
P. O. Box 6101
Morgantown, WV 26506

Dear Roy:

Enclosed is an IEEE Expense Report for my travel to Orlando for meetings about a World Congress on Computational Intelligence held in Orlando January 9 and 10.

Sincerely,

Robert J. Marks II
Past President

SS# [REDACTED]
IEEE 6402291

READ INSTRUCTIONS CAREFULLY BEFORE TO
 IEEE TRAVEL REIMBURSEMENT MANUAL BEFORE COMPLETING THIS FORM



THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.
 EXPENSE REPORT FOR PERIOD ENDING

1/31 19 93

IEEE

NAME
 Robert J. Marks II
 (ADDRESS TO SEND CHECK)
 Dept of Electrical Engineering
 University of Washington
 Seattle, WA 98195

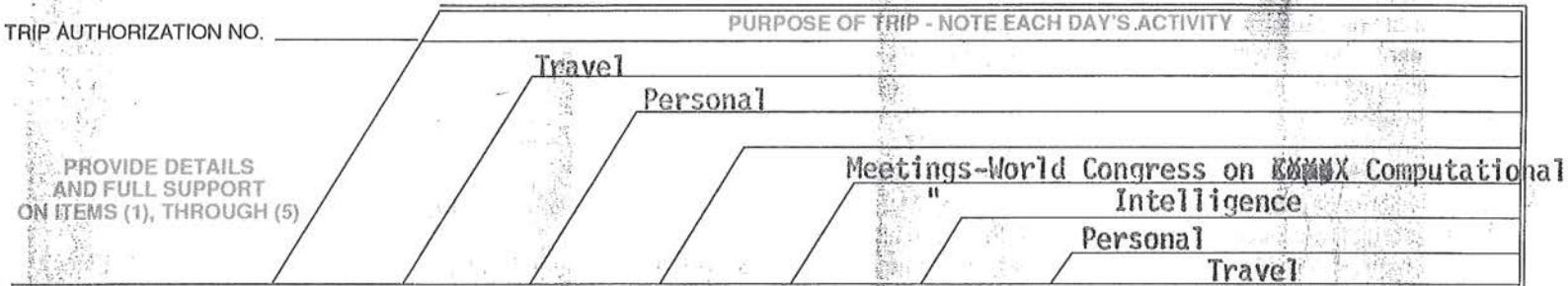
TRAVELING IN CAPACITY OF (CHECK ONE)

- MEMBER OF IEEE STAFF _____ (Dept.)
- MEMBER OF IEEE BD. OF DIRECTORS/EXECUTIVE COMM.
- IEEE REGIONAL DIRECTOR
- IEEE STANDING BOARD OR COMMITTEE REPRESENTATIVE
- SOCIETY OFFICER
 Neural Network Council
 (Name of Board, Committee or Society)

TRIP AUTHORIZATION NO. _____

PURPOSE OF TRIP - NOTE EACH DAY'S ACTIVITY

PROVIDE DETAILS AND FULL SUPPORT ON ITEMS (1), THROUGH (5)



| DETAILS | DATE | 1/6/93 | 1/7 | 1/8 | 1/9 | 1/10 | 1/11-12 | 1/13 | TOTAL EXPENSE | CHARGED DIRECT TO IEEE (5) |
|-------------------------------------|------|-----------------|---------|----------------|-----------------|-----------------|---------------|----------------|-----------------|----------------------------|
| | TOWN | Seattle | Orlando | Orlando | Orlando | Orlando | Orlando | Seattle | | |
| PERSNL. AUTO MILEAGE | | | | | | | | | | |
| TRANSPORTATION TOLLS - PARKING | | | | 5 00 | 5 00 | 5 00 | | | 15 00 | |
| MILEAGE ALLOWANCE | | 21 00 | | | | | | 21 00 | | |
| TAXI - BUS SEE REVERSE SIDE (1) | | 361 00 | | 36 09 | 36 09 | 36 09 | | | 467 27 | |
| PLANE - TRAIN - AUTO RENTAL | | | | | | | | | | |
| LODGING/SELF | | | | | 82 50 | 82 50 | | | 165 00 | |
| MEALS/SELF SEE REVERSE SIDE (2) | | | | | | | | | | |
| OFFICIAL GUEST SEE REVERSE SIDE (3) | | | | | | 22 09 | | | 22 09 | |
| MISCELLANEOUS TEL & TEL | | 75 | | | 1 50 | 1 50 | 2 25 | 75 | | |
| TIPS - GRATUITIES | | 3 00 | | | | | | 3 00 | 6 00 | |
| OTHER (4) | | | | | 2 50 | 6 50 | | | 9 00 | |
| TOTAL EXPENSE | | 385 75 | | 41 09 | 127 59 | 153 68 | 2 25 | 24 75 | 735 11 | |

PROVIDE DETAILS BELOW AND ATTACH FULL SUPPORT ON ITEMS (4) AND (5).

(4) 1/9 - \$2.50=tolls in Orlando

(5) 1/10 - \$2.50=tolls in Orlando, \$4.00 gas

| | |
|-----------------------------|----------|
| LESS CHARGED DIRECT TO IEEE | |
| LESS ADVANCE FROM IEEE | |
| BALANCE DUE FROM (TO) IEEE | 735 11 |
| ACCOUNT NO. | AMOUNT |
| | |
| SIGNATURE | DATE |
| APPROVAL | DATE |
| APPROVAL | DATE |
| | \$ |

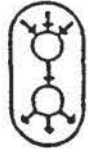
AMOUNT OF CHECK

BELOW FOR ACCOUNTING DEPT. USE ONLY

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| VENDOR NO. | DISTRIBUTED BY | APPROVED BY |
| | | |



NEURAL NETWORKS COUNCIL



Robert J. Marks II
Past President

PLEASE REPLY TO:
Interactive Systems Design Laboratory
Department of Electrical Engineering, FT-10
University of Washington
Seattle, WA 98198 USA
Tel: (206) 543-6990 (O)
Tel: (206) 776-8995 (H)
Fax: (206) 543-3842
e-mail: marks@milton.u.washington.edu

April 5, 1993

Roy S. Nutter, Jr., Treasurer
IEEE Neural Networks Council
West Virginia University
821 Electrical Engineering
P.O. Box 6101
Morgantown, WV 26506

Dear Roy,

Enclosed are original receipts for expenses incurred in my duties as editor of IEEE TNN.

| | | |
|-------|--------|----------|
| #1 | toner | 40.03 |
| #2 | phone | 24.13 |
| | tax | 2.19 |
| #3 | toner | 397.97 |
| | drum | |
| | opener | |
| #4 | stamps | 29.00 |
| #5 | phone | 54.63 |
| | tax | 5.14 |
| #7 | certif | 27.50 |
| total | | \$580.59 |

Please remit this amount to me at the above address.

Sincerely,

A handwritten signature in black ink, appearing to be 'R. Marks II'.

Robert J. Marks, Editor-in-Chief
IEEE Transactions on Neural Networks

Robert J. Marks II
SS# [REDACTED]
IEEE# 6402291

MCI long distance phone bill

ACCOUNT NUMBER: 6B316295 267488BUN
INVOICE NUMBER: 87490875 PAGE NUMBER 3
INVOICE PERIOD: JAN 22-FEB 21

Service Summary

| | |
|-----------------------------|----------|
| Bonus Discounts | \$2.75CR |
| Long Distance | \$40.07 |
| Total MCI Card Calls | \$54.63 |
| Total Current Charges | \$91.95 |

Taxes

| | |
|-------------------------------|--------|
| Federal Tax | \$2.77 |
| State & Local Tax | \$6.66 |
| State & Local Surcharge | \$.43 |
| Total Current Taxes | \$9.86 |

Total Current Charges and Taxes \$101.81

Your Discount Plans

Bonus Discounts

This amount includes your additional savings plan discounts on top of MCI's already low rates!

| | |
|---------------------------------|----------|
| Friends & Family Discount | \$2.75CR |
| Total Bonus Discounts | \$2.75CR |

Call Information

Long Distance

Calls from 206-776-8995:

| DATE | TIME | RATE | TO/FROM | NUMBER | MIN | AMOUNT | |
|--------------------------------|--------|--------|------------------|-------------------------|-------------------------|---------|-------|
| JAN 23 | 06:45P | N | TO MAPLE HTS OH | 216-663-5610 | 54 | 6.75 | |
| | 29 | 06:36P | E | TO FLOURBLUFF TX | 512-939-8895 | 94 | 13.90 |
| | 31 | 06:49P | E | TO MAPLE HTS OH | 216-663-5610 | 41 | 6.06 |
| FEB 14 | 10:45A | N | TO FLOURBLUFF TX | 512-939-8895 | 17 | 2.12 | |
| | 18 | 08:58P | E | TO FLOURBLUFF TX | 512-939-8895 | 76 | 11.24 |
| Total Calls from 206-776-8995: | | | | | | \$40.07 | |

1993 IEEE Neural Networks Council Document
Robert J. Marks II Library Archive

| | | | | |
|---------------------------------------|---------------------------|-------------------|---|-----------|
| ACCOUNT 6B316295 | INVOICE 89773208 CYCLE 22 | DECEMBER 22, 1992 | 2 | 397558BUN |
| CURRENT CHARGES | | | | TOTAL |
| DOMESTIC LONG DISTANCE | | | | \$39.68 |
| DOMESTIC MCI CARD | | | | \$24.13 |
| FRIENDS AND FAMILY DISCOUNT | | | | 2.24CR |
| DIRECTORY ASSISTANCE | 1 CALL | | | .64 |
| FEDERAL TAX | | | | 1.88 |
| STATE AND LOCAL TAXES | | | | 4.72 |
| STATE AND LOCAL SURCHARGE | | | | .29 |
| TOTAL CURRENT CHARGES | | | | \$69.10 |
| PREVIOUS BALANCE (DISREGARD, IF PAID) | | | | 96.11 |
| PAYMENTS THROUGH DEC 21 -- THANK YOU | | | | 60.55CR |
| ADJUSTMENTS | | | | .00 |
| BALANCE DUE FROM PREVIOUS CHARGES | | | | 35.56 |
| TOTAL AMOUNT DUE BY 01/12/93 | | | | \$104.66 |



FOR CUSTOMER SERVICE, CALL TOLL-FREE 1-800-964-2458
FOR TDD MACHINES ONLY, CALL 1-800-374-4TDD
Robert J. Marks II Library Archive

UNITED STATES POSTAL SERVICE

1993 IEEE Neural Networks Council Document
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U. S. POST OFFICE
6817 208th ST. S.W.
LYNNWOOD, WASHINGTON 98036

OFFICIAL BUSINESS
EP-51



4

PENALTY FOR PRIVATE
USE TO AVOID PAYMENT
OF POSTAGE, \$300



LAST NAME MARKS FI R MI J
COMPANY NAME _____
STREET 1131 199th ST S.W. APT _____
CITY Lynnwood WA STATE WA ZIP Code 98036



Robert J. Marks II Library Archive

THANK YOU FOR SAVING AT OFFICE DEPOT
11/25/92 17:22

THAT'S A SAVINGS OF 37%

YOU SAVED \$22.00

OFFICE DEPOT'S LOW EVERYDAY PRICES = \$37.00

WOULD HAVE COST YOU \$59.00

***** YOUR PURCHASES *****

APPROVAL CODE 88 40.03

DISCOVER CARD ACCOUNT NUMBER 6011009675000243

EXPIRATION DATE 09/95

ACCOUNT # 44-000110044-0137

EXPIRATION DATE 09/95

WITH CARD

4/01/93 15:50

THANK YOU FOR SAVING AT OFFICE DEPOT

THAT'S A SAVINGS OF 16%

YOU SAVED \$15.00

OFFICE DEPOT'S LOW EVERYDAY PRICES = \$47.00

WOULD HAVE COST YOU \$62.00

***** YOUR PURCHASES *****

APPROVAL CODE 88 40.03

DISCOVER CARD ACCOUNT NUMBER 6011009675000243

EXPIRATION DATE 09/95

WITH CARD

CUSTOMER SIGNATURE
Robert J. Marks II
SLIP

5395174

TOTAL 40.03

MA 8.2% SALES TAX 3.03

SUBTOTAL 37.00

MFG. LIST \$59.00

451144 XEROX 5011 TOWER 37.00

11 SALE 6634 0865 002

OFFICE DEPOT

5710 184TH ST. S.W.
LYNNWOOD, WA. 98036
(206) 771-2582

11 SALE 6634 0865 002

TOTAL 40.03

MA 8.2% SALES TAX 3.03

SUBTOTAL 37.00

MFG. LIST \$59.00

451144 XEROX 5011 TOWER 37.00

11 SALE 6634 0865 002

OFFICE DEPOT

5710 184TH ST. S.W.
LYNNWOOD, WA. 98036
(206) 771-2582

11 SALE 6634 0865 002

#6

Mikes Print Emporium

11005 128th NE Suite C202
Kirkland, Wa. 98033
206-823-8628

Bill to Dr. Bob Marks:

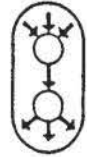
IEEE Certificates #2 @ \$12.50 \$25.00
tax 2.05
total \$27.05

Remit to Michael Montgomery, Thank
you!

[Handwritten signature]
2/7/93



TRANSACTIONS ON NEURAL NETWORKS
NEURAL NETWORKS COUNCIL



Robert J. Marks II
Editor-in-Chief

PLEASE REPLY TO:
University of Washington
Department of Electrical Engineering
c/o 1131 199th Street S.W., Suite N
Lynnwood, WA 98036-7138 USA

October 14, 1993

Roy S. Nutter, Jr., Treasurer
IEEE Neural Networks Council
West Virginia University
821 Electrical Engineering
P.O. Box 6101
Morgantown, WV 26506

Roy,

Enclosed are receipts for my expenses as TNN Editor.

| | |
|-----------------|----------------|
| Office Supplies | \$42.17 |
| MCI Phone | \$63.99 |
| MCI Phone | <u>\$65.53</u> |
| Total | \$171.69 |

Please remit reimbursement to the address on the letterhead.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. Marks II', written in a cursive style.

Robert J. Marks II

Robert J. Marks II
SS# [REDACTED]
IEEE# 6402291

MCI

long distance phone bill

Long Distance (continued)

| Calls from 206-776-9297: | | | | | | |
|--------------------------------|--------|------|-------------------|--------------|-----|---------|
| DATE | TIME | RATE | TO/FROM | NUMBER | MIN | AMOUNT |
| Aug 20 | 03:52A | N | TO ALBUQUURQUE NM | 505-277-1439 | 4 | .50 |
| 20 | 12:59P | D | TO WESTON WV | 304-269-1289 | 1 | .24 |
| 20 | 01:47P | D | TO LA JOLLA CA | 619-455-5530 | 1 | .23 |
| 20 | 01:48P | D | TO LA JOLLA CA | 619-453-6222 | 19 | 4.53 |
| Total Calls from 206-776-9297: | | | | | | \$46.67 |

Total Long Distance \$46.67

International Long Distance

| Calls from 206-776-9297: | | | | | | |
|--------------------------------|--------|------|----------|-------------|-----|---------|
| DATE | TIME | RATE | TO/FROM | NUMBER | MIN | AMOUNT |
| Jul 28 | 02:16P | S | TO JAPAN | 81527819243 | 1 | 3.04 |
| 28 | 02:28P | S | TO JAPAN | 81449347908 | 1 | 3.04 |
| Aug 17 | 01:09P | Y | TO JAPAN | 81338180835 | 3 | 3.75 |
| 17 | 01:13P | Y | TO JAPAN | 81338180835 | 1 | 2.15 |
| Total Calls from 206-776-9297: | | | | | | \$11.98 |

Total International Long Distance \$11.98

Legend

- D = Domestic Pricing at Daytime Rate
- E = Domestic Pricing at Evening Rate
- N = Domestic Pricing at Night/Weekend Rate
- S = International Pricing at Standard Rate
- Y = International Pricing at Economy Rate

MCI

long distance phone bill

Service Summary

| | |
|-----------------------------------|---------|
| Long Distance | \$46.67 |
| International Long Distance | \$11.98 |
| Total Current Charges | \$58.65 |

Taxes

| | |
|--------------------------------|--------|
| Federal Excise Tax | \$1.77 |
| State & Local Taxes | \$4.83 |
| State & Local Surcharges | \$.28 |
| Total Current Taxes | \$6.88 |

Total Current Charges and Taxes \$65.53

Call Information

Long Distance

| Calls from 206-776-9297: | | | | | | |
|--------------------------|--------|------|------------------|--------------|-----|--------|
| DATE | TIME | RATE | TO/FROM | NUMBER | MIN | AMOUNT |
| Jul 23 | 12:14P | D | TC CAMBRIDGE MA | 617-253-0920 | 2 | .49 |
| 23 | 12:16P | D | TO LUBBOCK TX | 806-742-3404 | 36 | 8.60 |
| 23 | 01:29P | D | TO SCHENCTADY NY | 518-370-8048 | 1 | .24 |
| 23 | 01:30P | D | TO SCHENCTADY NY | 518-387-5155 | 1 | .24 |
| 23 | 02:44P | D | TO SCHENCTADY NY | 518-387-6845 | 1 | .24 |
| 25 | 01:00A | N | TO LA JOLLA CA | 619-535-3880 | 3 | .37 |
| 25 | 09:33P | E | TO DUNELLEN NJ | 908-562-1571 | 2 | .29 |
| 28 | 11:47A | D | TO LA JOLLA CA | 619-455-5530 | 1 | .23 |
| 28 | 11:48A | D | TO LA JOLLA CA | 619-455-5530 | 1 | .23 |
| 28 | 12:06P | D | TO MESA AZ | 602-396-2108 | 1 | .23 |
| 28 | 12:29P | D | TO LA JOLLA CA | 619-453-6222 | 6 | 1.43 |
| 28 | 02:11P | D | TO HOLMDEL NJ | 908-949-6038 | 1 | .24 |
| 28 | 08:09P | E | TO LUBBOCK TX | 806-742-1245 | 1 | .14 |
| 31 | 11:43A | N | TO MAPLE HTS OH | 216-663-5610 | 5 | .62 |
| 31 | 11:49A | N | TO MAPLE HTS OH | 216-663-5610 | 2 | .25 |
| Aug 02 | 02:43A | N | TO WESTON WV | 304-269-1289 | 1 | .12 |
| 02 | 12:01P | D | TO MAPLE HTS OH | 216-663-5610 | 1 | .24 |

Long Distance (continued)

Calls from 206-776-9297:

| DATE | TIME | RATE | TO/ FROM | NUMBER | MIN | AMOUNT |
|--------------------------------|--------|------|-------------------|--------------|-----|---------|
| Aug 25 | 08:28P | E | TO MAPLE HTS OH | 216-663-5610 | 5 | .73 |
| 27 | 04:02P | D | TO TALLAHASSE FL | 904-644-0058 | 1 | .24 |
| 28 | 11:04A | N | TO LOUISVILLE KY | 502-339-7939 | 154 | 19.25 |
| Sep 02 | 10:31A | D | TO IRVINE CA | 714-752-8205 | 1 | .23 |
| 02 | 10:32A | D | TO IRVINE CA | 714-752-8205 | 10 | 2.38 |
| 03 | 04:40P | D | TO NEW YORK NY | 212-705-7682 | 10 | 2.48 |
| 03 | 08:39P | E | TO NEW YORK NY | 212-705-7682 | 2 | .29 |
| 08 | 01:52P | D | TO LOUISVILLE KY | 502-588-6314 | 2 | .49 |
| 08 | 02:27P | D | TO LUBBOCK TX | 806-742-1245 | 2 | .47 |
| 09 | 11:18P | N | TO ALBUQUURQUE NM | 505-277-1439 | 1 | .12 |
| 09 | 11:19P | N | TO LUBBOCK TX | 806-742-1245 | 1 | .12 |
| 09 | 11:20P | N | TO BRYAN TX | 409-845-7161 | 1 | .12 |
| 10 | 12:28A | N | TO NEW YORK NY | 212-705-7682 | 1 | .12 |
| 12 | 08:52P | E | TO NEW YORK NY | 212-705-7682 | 1 | .14 |
| 13 | 02:25A | N | TO BRYAN TX | 409-845-7161 | 1 | .12 |
| 13 | 02:26A | N | TO BRYAN TX | 409-845-7161 | 1 | .12 |
| 13 | 02:42A | N | TO DUNELLEN NJ | 908-562-1571 | 1 | .12 |
| 13 | 02:52A | N | TO LOUISVILLE KY | 502-588-7033 | 5 | .62 |
| 13 | 11:48A | D | TO MERRIVALLEY AZ | 602-492-7963 | 21 | 5.01 |
| 15 | 01:57P | D | TO PENSACOLA FL | 904-474-2096 | 5 | 1.24 |
| 15 | 06:46P | E | TO EDGECLIFF TX | 817-551-4584 | 5 | .73 |
| 15 | 09:07P | E | TO EDGECLIFF TX | 817-551-4584 | 2 | .29 |
| 16 | 01:24A | N | TO IRVINE CA | 714-752-7444 | 1 | .12 |
| 16 | 01:26A | N | TO IRVINE CA | 714-752-7444 | 1 | .12 |
| 16 | 11:18A | D | TO ALBUQUURQUE NM | 505-268-7341 | 1 | .23 |
| 16 | 11:18A | D | TO ALBUQUURQUE NM | 505-277-1439 | 1 | .23 |
| 16 | 11:19A | D | TO ALBUQUURQUE NM | 505-277-1436 | 1 | .23 |
| 17 | 11:45A | D | TO NEW YORK NY | 212-705-7421 | 5 | 1.24 |
| 17 | 01:03P | D | TO DUNELLEN NJ | 908-562-1571 | 7 | 1.74 |
| Total Calls from 206-776-9297: | | | | | | \$44.64 |
| Total Long Distance | | | | | | \$44.64 |

Zurnal

Plan

DR ROBT II MARKS

| | |
|---|-----------|
| Current Charges | \$57.27 |
| Current Taxes | \$6.72 |
| Total Current Charges and Taxes | \$63.99 |
| Previous Balance (Please disregard if paid) | \$65.10 |
| Payments through 09/20/93 | \$28.00CR |
| Balance due from Previous Charges | \$37.10 |
| Total Amount Due | \$101.09 |

Service Summary

| | |
|-----------------------------------|---------|
| Long Distance | \$44.64 |
| International Long Distance | \$12.63 |
| Total Current Charges | \$57.27 |

Taxes

| | |
|--------------------------------|--------|
| Federal Excise Tax | \$1.73 |
| State & Local Taxes | \$4.72 |
| State & Local Surcharges | \$.27 |
| Total Current Taxes | \$6.72 |

Total Current Charges and Taxes **\$63.99**

Call Information

Long Distance

Calls from 206-776-9297:

| DATE | TIME | RATE | TO/ FROM | NUMBER | MIN | AMOUNT |
|--------|--------|------|------------------|--------------|-----|--------|
| Aug 22 | 09:03P | E | TO MAPLE HTS OH | 216-663-5610 | 18 | 2.66 |
| 23 | 12:51P | D | TO LOUISVILLE KY | 502-588-6314 | 1 | .24 |
| 23 | 10:16P | E | TO LA JOLLA CA | 619-535-3880 | 5 | .73 |
| 23 | 10:38P | E | TO NEW YORK NY | 212-705-7682 | 2 | .29 |
| 24 | 12:49A | N | TO LA JOLLA CA | 619-535-3880 | 2 | .25 |
| 24 | 01:01A | N | TO NEW YORK NY | 212-705-7682 | 3 | .37 |
| 24 | 01:51A | N | TO LUBBOCK TX | 806-742-1245 | 4 | .50 |
| 24 | 01:55A | N | TO LUBBOCK TX | 806-742-1245 | 1 | .12 |
| 25 | 08:27P | E | TO MAPLE HTS OH | 216-663-5610 | 1 | .14 |



Billing Period: Jul 22-Aug 21

Long Distance (continued)

Calls from 206-776-9297:

| DATE | TIME | RATE | TO/FROM | NUMBER | MIN | AMOUNT |
|--------|--------|------|------------------|--------------|-----|--------|
| Aug 02 | 12:02P | D | TO MAPLE HTS OH | 216-663-5610 | 1 | .24 |
| 02 | 12:19P | D | TO MAPLE HTS OH | 216-663-5610 | 1 | .24 |
| 02 | 12:26P | D | TO WESTON WV | 304-269-1289 | 1 | .24 |
| 02 | 04:22P | D | TO IRVINE CA | 714-752-8205 | 2 | .47 |
| 02 | 04:25P | D | TO IRVINE CA | 714-752-7444 | 1 | .23 |
| 02 | 04:26P | D | TO IRVINE CA | 714-752-7444 | 2 | .47 |
| 03 | 02:40A | N | TO CHAMPAURBN IL | 217-244-7175 | 2 | .25 |
| 04 | 12:37P | D | TO DAYTON OH | 513-255-9266 | 1 | .24 |
| 04 | 12:37P | D | TO LA JOLLA CA | 619-455-5530 | 2 | .47 |
| 04 | 12:39P | D | TO LA JOLLA CA | 619-455-5530 | 2 | .47 |
| 04 | 12:41P | D | TO DAYTON OH | 513-255-9266 | 1 | .24 |
| 05 | 02:03A | N | TO CHA LOTSVL VA | 804-982-2972 | 1 | .12 |
| 05 | 02:08A | N | TO CHARLOTSVL VA | 804-982-2972 | 7 | .87 |
| 05 | 02:19A | N | TO LA JOLLA CA | 619-453-9274 | 2 | .25 |
| 05 | 02:21A | N | TO CHARLOTSVL VA | 804-982-2972 | 7 | .87 |
| 05 | 02:29A | N | TO LA JOLLA CA | 619-453-9274 | 1 | .12 |
| 07 | 06:06P | N | TO LA JOLLA CA | 619-455-7869 | 1 | .12 |
| 07 | 08:15P | N | TO MAPLE HTS OH | 216-663-5610 | 1 | .12 |
| 07 | 08:17P | N | TO MAPLE HTS OH | 216-663-5610 | 1 | .12 |
| 09 | 12:21P | D | TO LOUISVILLE KY | 502-588-6314 | 1 | .24 |
| 11 | 10:37A | D | TO NEW YORK NY | 212-705-7356 | 1 | .24 |
| 11 | 10:38A | D | TO NEWBRNSWCK NJ | 908-932-1066 | 4 | .99 |
| 11 | 10:43A | D | TO NEWBRNSWCK NJ | 908-932-1066 | 19 | 4.72 |
| 11 | 11:06A | D | TO COLUMBUS OH | 614-292-5940 | 1 | .24 |
| 11 | 11:26A | D | TO LOUISVILLE KY | 502-588-6314 | 1 | .24 |
| 11 | 11:27A | D | TO LOUISVILLE KY | 502-588-6314 | 1 | .24 |
| 12 | 12:05P | D | TO COLUMBUS OH | 614-292-5940 | 3 | .74 |
| 13 | 12:05P | D | TO LOUISVILLE KY | 502-588-6314 | 1 | .24 |
| 13 | 12:08P | D | TO DAYTON OH | 513-255-9266 | 2 | .49 |
| 13 | 12:13P | D | TO MAPLE HTS OH | 216-663-5610 | 1 | .24 |
| 13 | 12:20P | D | TO MAPLE HTS OH | 216-663-5610 | 1 | .24 |
| 17 | 12:08P | D | TO LUBBOCK TX | 806-742-3404 | 48 | 11.46 |
| 20 | 03:47A | N | TO DURHAM NC | 919-541-8746 | 4 | .50 |



Billing Period: Aug 22-Sep 21

International Long Distance

Calls from 206-776-9297:

| DATE | TIME | RATE | TO/FROM | NUMBER | MIN | AMOUNT |
|--------|--------|------|-----------------|-------------|-----|--------|
| Aug 27 | 02:11P | X | TO UN KNGDM | 44718238125 | 1 | 1.14 |
| 27 | 02:14P | X | TO UN KNGDM | 44718238125 | 2 | 1.86 |
| Sep 04 | 01:57A | Y | TO FRANCE | 33147655428 | 1 | 1.14 |
| 04 | 07:08P | S | TO JAPAN | 81527819243 | 1 | 3.04 |
| 08 | 02:41P | S | TO JAPAN | 81532467806 | 2 | 4.27 |
| 13 | 02:57A | Y | TO PUEBLA PU MX | 5222470517 | 1 | 1.18 |

Total Calls from 206-776-9297:

\$12.63

Total International Long Distance

\$12.63

Legend

- D = Domestic Pricing at Daytime Rate
- E = Domestic Pricing at Evening Rate
- N = Domestic Pricing at Night/Weekend Rate
- S = International Pricing at Standard Rate
- X = International Pricing at Discount Rate
- Y = International Pricing at Economy Rate

OFFICE DEPOT

5710 196TH ST. S.W.
LYNNWOOD, WA. 98036
(206) 771-2582

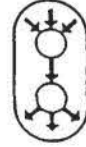
2.0A 15 SALE 2075 0865 005

| | |
|------------------------------|-------|
| 1250205166 BROTHER FAX PAPER | 12.99 |
| MFG.LIST \$16.95 | |
| 1250205166 BROTHER FAX PAPER | 12.99 |
| MFG.LIST \$16.95 | |
| 1250205166 BROTHER FAX PAPER | 12.99 |
| MFG.LIST \$16.95 | |
| SUBTOTAL | 38.97 |
| WA 8.2% SALES TAX | 3.20 |
| TOTAL | 42.17 |

ACCOUNT NUMBER 4436011103413137
EXPIRATION DATE 06/94
VISA CARD 42.17
APPROVAL CODE 056083
THANK YOU FOR SAVING AT OFFICE DEPOT

10/13/93 16:09

file



IEEE

NEURAL NETWORKS COUNCIL

Roy S. Nutter, Jr.
Treasurer

September 8, 1993

Marilyn Prusan
Finance Administrator
IEEE Technical Activities
445 Hoes Lane
P.O. Box 1331
Piscataway, NJ 08855-1331

PLEASE REPLY TO:
West Virginia University
Department of Electrical and
Computer Engineering
821 Engineering Sciences Bldg.
P.O. Box 6101
Morgantown, WV 26506-6101 USA
Tel: (304) 293-6371 Ext. 510
Fax: (304) 293-5024
E-mail: rsn@a.coe.wvu.wvnet.edu

Dear Ms. Prusan:

Attached are receipts for MCI Phone Charges, Misc. Office Supplies, and Fax Paper totaling \$228.53 from Robert J. Marks for expenses incurred in his duties as Past President of the IEEE NNC. These expenses were directly connected to his duties as Past President of IEEE NNC and should be charged to the Transactions on Neural Networks Account. Please reimburse Mr. Marks for the above amount and have a check sent to him at the following address:

Robert J. Marks
University of Washington
Department of Electrical Engineering
c/o 1131 199th Street S.W., Suite N
Lynnwood, WA 98036-7138

SSN: [REDACTED]
IEEE#: 6402291

If you have any comments or questions, please do not hesitate to contact me.

Sincerely,

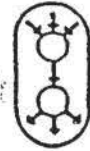
Roy S. Nutter
NNC Treasurer

cc: Robert J. Marks

File/mailed
9/11



NEURAL NETWORKS COUNCIL



Robert J. Marks II
Past President

PLEASE REPLY TO:
Interactive Systems Design Laboratory
Department of Electrical Engineering, FT-10
University of Washington
Seattle, WA 98198 USA
Tel: (206) 543-6990 (O)
Tel: (206) 776-8995 (H)
Fax: (206) 543-3842
e-mail: marks@milton.u.washington.edu

August 30, 1993

Roy S. Nutter, Jr., Treasurer
IEEE Neural Networks Council
West Virginia University
821 Electrical Engineering
P.O. Box 6101
Morgantown, WV 26506

Dear Roy,

Enclosed are original receipts for expenses incurred in my duties as Past President of the IEEE NNC.

| | | | |
|-------|--------------|------------|--------------------------|
| #1 | Office Max | \$ 40.23 | Misc. Office Supplies |
| #2 | MCI phone | \$246.75 | (telephone) |
| #3 | Office Depot | \$136.29 | (fax paper & copy toner) |
| #4 | Office Depot | <\$194.74> | (returned copy toner)† |
| TOTAL | | \$228.53 | |

Please remit this amount to me at the above address.

Sincerely,

Robert J. Marks, Editor-in-Chief
IEEE Transactions on Neural Networks

Robert J. Marks II
SS# [redacted]
IEEE# 6402291

† Previously charged to NNC. They were returned because they were the incorrect size.

BIZMART

Office Products Supercenter

VISA MASTER CARD AMERICAN EXPRESS
 DISCOVER CARD BIZCHARGE OTHER

EXPIRATION DATE CHECKED

OFFICEMAX, INC.
 10420 33RD AVE. W. STORE 169
 LYNNWOOD, WA 98037 PH: (206) 775-7510

SALE 69222 1 16903 75330
 0169 08/08/93 04:12 PM

TTL MCVSDS \$40.23

ACCOUNT #: 4842030811645317
 AUTHORIZATION #: 097998
 EXPIRATION DATE: 08/94
 MERCHANT #: 15420000169

53999556

CUSTOMER SIGNATURE

X 

Cardholder acknowledges receipt of goods and/or services in the amount of the Total shown hereon and agrees to perform the obligations set forth in the Cardholder's agreement with the issuer.

IMPORTANT: RETAIN FOR YOUR RECORDS. CUSTOMER COPY

(206) 771-2582

2.0A 11 SALE RTN 8109 0865 001
 9520560333 5220 TONER CART. 89.99-R
 MFG LIST \$135.00
 9520560333 5220 TONER CART. 89.99-R
 MFG LIST \$135.00
 SUBTOTAL 179.98-
 WA 8.2% SALES TAX 14.76-
 TOTAL 194.74-

ACCOUNT NUMBER 6011009675000843
 EXPIRATION DATE 09/95
 DISCOVER CARD 194.74-
 REFUND DUE 194.74-
 THANK YOU FOR SAVING AT OFFICE DEPOT

8/13/93 14:56

OFFICEMAX, INC.
 18420 33RD AVE. W. STORE 169
 LYNNWOOD, WA 98037 PH: (206) 775-7510

SALE 67222 1 16903 75330
 0169 08/08/93 04:11 PM

| | |
|----------------------|---------|
| 072782052003 | |
| FILE FOLDER/LABE | 1.99 |
| 070630201528 | |
| HANG.F.LGL 1/5 C | 3.75 |
| 072782052010 | |
| FILE FOLDER/LABE | 1.99 |
| 072782054632 | |
| 3/4 GREEN LBL 10 | 3.99 |
| 072782054663 | |
| 3/4 RED LABEL 10 | 3.99 |
| 041333844015 | |
| BATTERY AAA 8-PA | 5.49 |
| 051131069138 | |
| TAPE COMMERCIAL | 11.99 |
| 035389034988 | |
| HANGING FILE FRA | 3.99 |
| MEMBER # | |
| INVOICE/PURCHAS ORDR | |
| SUB TOTAL | 37.18 |
| 8.200%TAX | 3.05 |
| TOTAL | \$40.23 |
| TTL MCVSDS | 40.23 |

ACCOUNT NUMBER 4842030811645317
 AUTHORIZATION NUMBER 097998

IPV LN 30310 05847035

THANK YOU FOR SAVING AT OFFICEMAX

OFFICE DEPOT

5710 196TH ST. S.W.
LYNNWOOD, WA. 98036
(206) 771-2582

| | | | |
|------------|-------------------|---------------|--|
| 2.0A | 11 SALE | 8110 0865 001 | |
| 9520560332 | XEROX 5011 TONER | 49.99 | |
| | MFG. LIST \$59.00 | | |
| 9520560332 | XEROX 5011 TONER | 49.99 | |
| | MFG. LIST \$59.00 | | |
| 1250205166 | BROTHER FAX PAPER | 12.99 | |
| | MFG. LIST \$16.95 | | |
| 1250205166 | BROTHER FAX PAPER | 12.99 | |
| | MFG. LIST \$16.95 | | |
| | SUBTOTAL | 125.96 | |
| | WA 8.2% SALES TAX | 10.33 | |
| | TOTAL | 136.29 | |

ACCOUNT NUMBER 6011009675000843
 EXPIRATION DATE 09/95
 DISCOVER CARD 136.29
 APPROVAL CODE 39
 THANK YOU FOR SAVING AT OFFICE DEPOT
 8/13/93 14:57

Credit to account

OFFICE DEPOT

5710 196TH ST. S.W.
LYNNWOOD, WA. 98036
(206) 771-2582

| | | | |
|------------|--------------------|-------------------|--|
| 2.0A | 11 SALE | RTN 8109 0865 001 | |
| 9520560333 | 5220 TONER CART. | 89.99-R | |
| | MFG. LIST \$135.00 | | |
| 9520560333 | 5220 TONER CART. | 89.99-R | |
| | MFG. LIST \$135.00 | | |
| | SUBTOTAL | 179.98- | |
| | WA 8.2% SALES TAX | 14.76- | |
| | TOTAL | 194.74- | |

ACCOUNT NUMBER 6011009675000843
 EXPIRATION DATE 09/95
 DISCOVER CARD 194.74-
 REFUND DUE 194.74-
 THANK YOU FOR SAVING AT OFFICE DEPOT
 8/13/93 14:56

OFFICEMAX, INC.

18420 33RD AVE. W. STORE 169
LYNNWOOD, WA 98037 PH: (206) 775-7510

SALE 6/22 1 16903 75330
0169 00/08/93 04:11 PM

| | | |
|----------------------|------------------|---------|
| 072782052003 | FILE FOLDER/LABE | 1.99 |
| 070630201528 | HANG.F.LGL 1/5 C | 3.75 |
| 072782052010 | FILE FOLDER/LABE | 1.99 |
| 072782054632 | 3/4 GREEN LBL 10 | 3.99 |
| 072782054663 | 3/4 RED LABEL 10 | 3.99 |
| 041333844015 | BATTERY AAA 8-PA | 5.49 |
| 051131069138 | TAPE COMMERCIAL | 11.99 |
| 035389034988 | HANGING FILE FRA | 3.99 |
| MEMBER * | | |
| INVOICE/PURCHAS ORDR | | |
| | SUB TOTAL | 37.18 |
| | 8.200%TAX | 3.05 |
| | TOTAL | \$40.23 |
| | TTL MCVS05 | 40.23 |

ACCOUNT NUMBER
4842030811645317
AUTHORIZATION NUMBER
097998

IPV LN 30310 05847035

THANK YOU FOR SAVING AT OFFICEMAX

| Special Handling | Voucher Number | OSU Purchase Order Number | Invoice Number | Date | Gross Amount | Discount Amount | Net Amount | Code |
|------------------|----------------|---------------------------|----------------|----------|--------------|-----------------|------------|------|
| | 94537361 | X93482 | EXPENSE | 11/24/93 | 554.00 | 0.00 | 554.00 | |
| | | | TOTALS | | 554.00 | 0.00 | 554.00 | |

THE OHIO STATE UNIVERSITY
 ACCOUNTS PAYABLE
 (614) 292-6831

CHECK DATE
 12/14/93
 CHECK NUMBER

454863

OSU Vendor Code:

UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98195

Department of Electrical Engineering, FT-10
Telephone: (206) 543-6990 (office), 543-6061 (secretary),
543-2150 (main office), 776-8995 (home), 543-3842 (FAX), 776-9297 (home FAX).
marks@u.washington.edu

November 11, 1993

Professor Ümit Özgüner, Search Committee Chair
Ohio State University
Department of Electrical Engineering
205 Drees Laboratory
2015 Neil Avenue
Columbus, OH 43210-1272

Dear Ümit,

Thank you for your hospitality during my visit. It was enjoyable and I learned much.

Enclosed are original receipts for the trip.

| | |
|-----------------|-------|
| Air Fare | \$506 |
| Airport Shuttle | \$ 24 |
| Airport Shuttle | \$ 24 |
| total | \$554 |

I entered and circled the amount on the blank receipt I received on the return shuttle trip.
Both shuttle fees include a \$3 tip.

If needed, my Social Security number is [REDACTED]

Best regards,



Robert J. Marks II
Professor



GUEST RECEIPT

11-10-93 #24 Sal x59
 DATE AMOUNT DRIVER

We offer Door to Door Service to and from your home,
 office or hotel - 24 hours a day, everyday.
 Call 622-1424 or 1-800-487-RIDE.



GUEST RECEIPT

11-7-93 \$24 599
 DATE AMOUNT DRIVER

We offer Door to Door Service to and from your home,
 office or hotel - 24 hours a day, everyday.
 Call 622-1424 or 1-800-487-RIDE.

| | | | | | | | |
|--|--|--|--------|-------------------------------|-------|--|----------------|
| PASSENGER TICKET AND BAGGAGE CHECK ISSUED BY NORTHWEST AIRLINES | | SUBJECT TO CONDITIONS CONTAINED IN THIS TICKET | | CONJUNCTION TICKET(S) | | See below for Airline Form, Serial Number | |
| ENDORSEMENTS & RESTRICTIONS (CARBON) | | ARC PASSENGER COUPON DATE OF ISSUE 15OCT93 | | ORIGIN/DESTINATION SEA/SEA | | STANG TRAVEL PSCR CPN SEA 50 86127-4/ | |
| PASSENGER NAME MARKS/ROBERT DR | | NOT TRANSFERABLE | | ISSUED IN EXCHANGE FOR | | DATE AND PLACE OF ISSUE | |
| FROM NOT GOOD FOR PASSAGE SEATTLE TACOMA | | CARRIER | FLIGHT | CLASS | DATE | TIME | STATUS |
| X DETROIT METRO | | NW | 578 | M | 07NOV | 830A | OK MCAWA7 |
| O COLUMBUS | | OH | NW | 709 | M | 10NOV | 545P OK MCAWA7 |
| X MINNEAPOLIS ST PL | | NW | 37 | M | 10NOV | 740P | OK MCAWA7 |
| TO SEATTLE TACOMA | | BAGGAGE CHECKED UNCHECKED | | PCS | WT | UNCHECKED | PCS |
| FARE USD 449.08 | | FARE CALCULATION SEA NW X/DTT NW CMH224.54 | | NW X/MSP NW SEA234.54 | | 449.08 END X | |
| TAX 44.92US | | FORM OF PAYMENT AX378743691952005 | | 10/94 | | ORIGINAL ISSUE 000028 | |
| TAX 12.00XF | | CPN AIRLINE CODE FORM SERIAL NUMBER CK | | 012 7742659576 1 | | TOUR CODE 10 | |
| TOTAL USD 504.00 | | CONTROL NO. 0011/K600JT | | 86211451876 | | DO NOT MARK OR WRITE IN THE WHITE AREA ABOVE | |

*Minibusnet rec'd
11/15/93*

University of Washington Correspondence

INTERDEPARTMENTAL

October 14, 1993

Hi, Dmitry:

Here's an expense report Bob asked me to forward to you for VRAIS expenses in the amount of \$144.03.

If you want, you can retain the yellow back copy for your records. I made copies for ours.

Ruth

P. S. Please make check payable to Robert J. Marks II and send to

Dept. of EE - FT-10
University of WA
Seattle, WA 98195



READ INSTRUCTIONS ON REVERSE SIDE OF YELLOW COPY AND REFER TO
 IEEE TRAVEL REIMBURSEMENT MANUAL BEFORE COMPLETING THIS FORM

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.
 EXPENSE REPORT FOR PERIOD ENDING

10/12 19 93

IEEE

TRAVELING IN CAPACITY OF (CHECK ONE)

- MEMBER OF IEEE STAFF _____ (Dept.)
- MEMBER OF IEEE BD. OF DIRECTORS/EXECUTIVE COMM
- IEEE REGIONAL DIRECTOR
- IEEE STANDING BOARD OR COMMITTEE REPRESENTATIVE
- SOCIETY OFFICER
 Neural Network Council
 (Name of Board, Committee or Society)

| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|
| NAME Robert J. Marks II | | | | | | | | | |
| (ADDRESS TO SEND CHECK) Dept. of EE - Rm 4110 | | | | | | | | | |
| University of Washington | | | | | | | | | |
| Seattle, WA 98195 | | | | | | | | | |

TRIP AUTHORIZATION NO. _____ PURPOSE OF TRIP - NOTE EACH DAY'S ACTIVITY

WCCI meeting
 NNC AdCom
 VRAIS 94 Organizing Mtg
 VRAIS 94 Organizing Mtg
 VRAIS 93 Status Mtg

PROVIDE DETAILS AND FULL SUPPORT ON ITEMS (1), THROUGH (5)

| DETAILS | DATE | 9/17 | 9/19 | 9/20 | 9/21 | 9/22 | TOTAL EXPENSE | CHARGED DIRECT TO IEEE (5) |
|--------------------------------|------|-------------|-------|---------|---------|---------|---------------|----------------------------|
| | TOWN | Seattle, WA | - - | - - - - | - - - - | - - - - | | |
| PERSONL. AUTO MILEAGE | | 42 | 42 | 42 | 42 | 42 | | |
| TRANSPORTATION TOLLS - PARKING | | 10 00 | 13 00 | 17 00 | 18 00 | 9 00 | 67 00 | |
| MILEAGE ALLOWANCE @ .28 | | 11 76 | 11 76 | 11 76 | 11 76 | 11 76 | 58 80 | |
| TAXI - BUS | | | | | | | | |
| SEE REVERSE SIDE (1) | | | | | | | | |
| PLANE - TRAIN - AUTO RENTAL | | | | | | | | |
| LODGING/SELF | | | | | | | | |
| MEALS/SELF | | | | | | | | |
| SEE REVERSE SIDE (2) | | | | | | 8 23 | 8 23 | |
| OFFICIAL GUEST | | | | | | | | |
| SEE REVERSE SIDE (3) | | | | | | 10 00 | 10 00 | |
| MISCELLANEOUS TEL & TEL. | | | | | | | | |
| TIPS - GRATUITIES | | | | | | | | |
| OTHER (4) | | | | | | | | |
| TOTAL EXPENSE | | 21 76 | 24 76 | 28 76 | 29 76 | 38 99 | 144 03 | |

PROVIDE DETAILS BELOW AND ATTACH FULL SUPPORT ON ITEMS (4) AND (5).

| | | | |
|-----------|-----------------------------|------|----------|
| (4) | LESS CHARGED DIRECT TO IEEE | | |
| | LESS ADVANCE FROM IEEE | | |
| | BALANCE DUE FROM (TO) IEEE | | |
| (5) | ACCOUNT NO. | | AMOUNT |
| | | | |
| SIGNATURE | | DATE | 10/13/93 |
| APPROVAL | | DATE | |
| APPROVAL | | DATE | |
| | | | \$ |

AMOUNT OF CHECK

BELOW FOR ACCOUNTING DEPT. USE ONLY

| | | |
|------------|----------------|-------------|
| VENDOR NO. | DISTRIBUTED BY | APPROVED BY |
| | | |

PROVIDE DETAILS BELOW OF SUMMARY EXPENSES
AS REPORTED ON FRONT OF THIS REPORT

TAXI - BUS (1)

| <u>DATE</u> | <u>AMOUNT</u> | <u>FROM</u> | <u>TO</u> |
|-------------|---------------|-------------|-----------|
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MEALS - SELF (2)

| <u>DATE</u> | <u>AMOUNT</u> | <u>BREAKFAST</u> | <u>LUNCH</u> | <u>DINNER</u> | <u>SOCIAL</u> |
|-------------|---------------|------------------|--------------|---------------|---------------|
| 9/22/93 | 8.23 | | 8.23 | | |
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MEALS - OFFICIAL GUEST (3)

| <u>DATE</u> | <u>AMOUNT</u> | <u>NAME/NAMES OF GUEST</u> | <u>PURPOSE OF MEETING</u> |
|-------------|---------------|----------------------------|-------------------------------|
| 9/22/93 | 10.00 | Dmitry Kaplan | Discuss finances for VRAIS 93 |
| | | | |
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Robert J Marks

SEATTLE SHERATON
HOTEL GARAGE
PARKING

OUT 09/17 23:12
IN 09/17 17:20
FEE 1 \$9.24
TAX \$0.76
TOTAL-> \$10.00
CASH \$10.00
CHANGE \$0.00

THANK YOU!

16382 1

SEATTLE SHERATON
HOTEL GARAGE
PARKING

OUT 09/19 19:08
IN 09/19 06:33
FEE 1 \$12.01
TAX \$0.99
TOTAL-> \$13.00
CASH \$13.00
CHANGE \$0.00

THANK YOU!

142 1

SEATTLE SHERATON
HOTEL GARAGE
PARKING

OUT 09/20 08:24
IN 09/20 06:35
FEE 1 \$7.39
TAX \$0.61
TOTAL-> \$8.00
CASH \$8.00
CHANGE \$0.00

THANK YOU!

1/219 1

SEATTLE SHERATON
HOTEL GARAGE
PARKING

OUT 09/20 17:33
IN 09/20 13:32
FEE 1 \$8.32
TAX \$0.68
TOTAL-> \$9.00
CASH \$20.00
CHANGE \$11.00

THANK YOU!

1/400 1

SEATTLE SHERATON
HOTEL GARAGE
PARKING

OUT 09/21 21:22
IN 09/21 16:58
FEE 1 \$8.32
TAX \$0.68
TOTAL-> \$9.00
CASH \$9.00
CHANGE \$0.00

THANK YOU!

1/770 1

SEATTLE SHERATON
HOTEL GARAGE
PARKING

OUT 09/21 14:01
IN 09/21 11:15
FEE 1 \$8.32
TAX \$0.68
TOTAL-> \$9.00
CASH \$9.00
CHANGE \$0.00

THANK YOU!

SEATTLE SHERATON
HOTEL GARAGE
PARKING

OUT 09/22 18:11
IN 09/22 14:26
FEE 1 \$8.32
TAX \$0.68
TOTAL-> \$9.00
CASH \$9.00
CHANGE \$0.00

THANK YOU!

| | | | |
|---|--|-----------------------------------|-------------------------|
| 3787 435919 52005 | | CARDMEMBER USE | EXPIRATION DATE CHECKED |
| Cardmember Account Number | | Approval Code | Type of Delayed Chg. |
| 09292 THRU 10/94 89 AX | | 35 | |
| Cardmember | | Check or Bill Number | Amt. of Delayed Chg. |
| ROBERT MARKS | | 16-2 | |
| Service Establishment | | Revised Total | |
| BARNERS 109440149708 3246000024 5460101850 WA | | 18.23 | |
| Date of Charge | | TAXES | |
| 092193 | | TIPS/MISC. | |
| PLEASE WRITE FIRMLY | | TOTAL | |
| Cardmember Signature | | Dollars | |
| X | | Cents | |
| Merchandise and/or service purchased on this card shall not be resold or returned for cash refund. Establishment agrees to transmit to American Express Travel Related Services Co., Inc. or authorized representative for payment. | | | |
| AMERICAN EXPRESS | | CD 20249 - CAMEX Paid in USA 4/92 | |
| Cards | | Cardmember Copy | |
| 527108 | | | |
| Invoice Number | | | |

IEEE 345 East 47th Street, New York, N.Y. 10017-2394, U.S.A.

040175

17-SEP-93 CUST. ACCT. NO.

VENDOR NAME Marks, Robert J II

VENDOR NO. 06402291

| INVOICE NO. | INVOICE DATE | DESCRIPTION | DISCOUNT AMOUNT | NET AMOUNT |
|-------------|--------------|--------------------------|----------------------|------------|
| 08-SEP-93 | 08-SEP-93 | REIMBURSEMENT EXPENSE | TRANS NN EDIT .00 | 313.42 |



\$.00

\$ 313.42

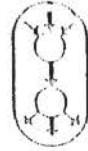
PLEASE DETACH AND RETAIN THIS STATEMENT AS YOUR RECORD OF PAYMENT

Thank You



NEURAL NETWORKS COUNCIL

A handwritten signature in black ink, appearing to be 'R. Marks'.



Roy S. Nutter, Jr.
Treasurer

August 31, 1993

PLEASE REPLY TO:
West Virginia University
Department of Electrical and
Computer Engineering
821 Engineering Sciences Bldg.
P.O. Box 6101
Morgantown, WV 26506-6101 USA
Tel: (304) 293-6371 Ext. 510
Fax: (304) 293-5024
E-mail: rsn@a.coe.wvu.wvnet.edu

Marilyn Prusan
Finance Administrator
IEEE Technical Activities
445 Hoes Lane
P.O. Box 1331
Piscataway, NJ 08855-1331

Dear Ms. Prusan:

Attached are receipts totaling \$313.42 for Robert J. Marks, Editor-in-Chief. These expenses were incurred in connection with his duties as Past President of the IEEE NNC. These expenses should be charged to the Editor Trans. on NN Account. Please reimburse Mr. Marks for the above amount and have a check sent to him at the following address:

Robert J. Marks, II
Interactive Systems Laboratory Design
Department of Electrical Engineering, FT-10
University of Washington
Seattle, WA 98198

SSN: [REDACTED]
IEEE#: 6402291

If you have any comments or questions, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to be 'R. S. Nutter'.

Roy S. Nutter
NNC Treasurer

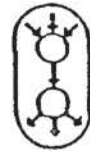
Attachments: Invoice & Receipts

cc: Robert J. Marks, II

*let's
please pay bills + charges to Editor Transactions NN*



NEURAL NETWORKS COUNCIL



Robert J. Marks II
Past President

PLEASE REPLY TO:
Interactive Systems Design Laboratory
Department of Electrical Engineering, FT-10
University of Washington
Seattle, WA 98198 USA
Tel: (206) 543-6990 (O)
Tel: (206) 776-8995 (H)
Fax: (206) 543-3842
e-mail: marks@milton.u.washington.edu

August 11, 1993

Roy S. Nutter, Jr., Treasurer
IEEE Neural Networks Council
West Virginia University
821 Electrical Engineering
P.O. Box 6101
Morgantown, WV 26506

Dear Roy,

Enclosed are original receipts for expenses incurred in my duties as Past President of the IEEE NNC.

| | | | |
|-------|-----------|---------------------|---|
| #1 | MCI phone | \$ 27.57 | (telephone) ✓ |
| #2 | MCI phone | \$242.32 | (telephone‡) ✓ |
| #3 | Shipping | \$50.40 | <i>Not correct</i> (flyers to Karen Haines to take to SIGGRAPH) |
| TOTAL | | \$320.29 | <i>\$313.42</i> → <i>\$43.53 on Receipt RSNutter</i> |

Please remit this amount to me at the above address.

Sincerely,

Robert J. Marks, Editor-in-Chief
IEEE Transactions on Neural Networks

Robert J. Marks II
SS# [redacted]
IEEE# 6402291

‡ Japan call was to Toshio Fukuda.

Marks II

1 Boxes Plus* **ORDER**
 Postal Boxes Plus
 1977 1st St SW Bothell, WA 98012
 3197 FAX (206) 487-3357 5503

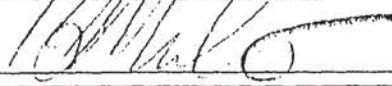
POSTAL BOXES PLUS
 NUMBER 407 3127
 JUL 31 '93 020011
 LISTED 40.50
 TOTAL 40.50
 FEES 40.50
 CHANGE 0.00

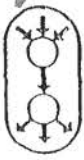
RECEIVED FROM: (please print)
 Marks II DATE 7/31/93
 16 ST. SW PHONE 206 776 8995
 WA 98036

SEND TO: Ken Haines
 46 Newport
 Contents Value SHIPPING 43.53
 DECLARED VALUE
 Alternate I.D. No. 0120 1355 030
 UPS GRND 2ND X SAT FED EX COD

SEND TO: 2
 NAME Contents Value SHIPPING
 STREET DECLARED VALUE
 CITY/STATE/ZIP Alternate I.D. No.
 UPS GRND 2ND X SAT FED EX COD

1. Parcels accepted at Postal Boxes Plus, hereafter referred to as PBP from customer are subject to refusal for shipment by the carrier of choice
 2. PBP does not accept for shipment, except at customer's risk, parcel(s) containing glass or other fragile items, or items over \$100.00 value that are not carrier insured. WE DO NOT ACCEPT HAZARDOUS MATERIALS
 3. PBP shall act as agent only for the above receipt and forwarding of parcel(s) by the customer whose name and address appear above. PBP assumes no liability for the successful completion of delivery of the parcel(s) accepted for shipment no loss or damages by any cause to the parcel(s) or the contents thereof. In the event of loss or damage to said parcel(s), PBP will act as agent on behalf of the shipper for the filing and processing of claims. It is hereby expressly agreed that PBP shall have no liability if any claim is denied or paid only in part by carrier
 4. It is also agreed, that provided the customer has indicated the "Declared Value" and paid the appropriate fees, the carrier's liability is limited to the repair or replacement value of lost or damaged items of readily ascertainable market value, not to include items of sentimental value. If parcel(s) should arrive damaged, the receiver must arrange for inspection of parcel(s) with the carrier's local agent
 5. PBP is not liable for the failure of the carrier to properly collect or remit funds for COD parcel(s). Furthermore, receiver's check shall be accepted for COD's at customer's risk unless otherwise noted on COD tag
 6. Customer shall not hold PBP liable for failure to make timely delivery on delivery date specified. Any statement by PBP as to probable delivery by carrier is a statement of opinion only and shall not be warranted in any manner. PBP shall not be liable for any delays in shipments or deliveries by PBP and/or carrier
 7. CLAIMS MUST BE MADE IN WRITING TO POSTAL BOXES PLUS WITHIN THREE (3) MONTHS OF DATE OF SHIPMENT ANY CLAIM MADE AFTER THREE MONTHS WILL BE WAIVED

 **TOTAL 43.53**

file




NEURAL NETWORKS COUNCIL

Roy S. Nutter, Jr.
Treasurer

May 26, 1993

PLEASE REPLY TO:
West Virginia University
Department of Electrical and
Computer Engineering
821 Engineering Sciences Bldg.
P.O. Box 6101
Morgantown, WV 26506-6101 USA
Tel: (304) 293-6371 Ext. 510
Fax: (304) 293-5024
E-mail: rsn@a.coe.wvu.wvnet.edu

Marilyn Prusan
Finance Administrator
IEEE Technical Activities
445 Hoes Lane
P.O. Box 1331
Piscataway, NJ 08855-1331

Dear Ms. Prusan:

Attached is an invoice and receipts totaling \$814.00 from Robert J. Marks, II. These expenses are related to his travel to San Francisco to attend the ADCOM meeting. Mr. Marks received an advance of \$750.00 from IEEE which leaves a balance of \$64.00 and should be charged to the ADCOM Account. Please reimburse Mr. Marks for the amount of \$64.00 and have a check sent to him at the following address:

Robert J. Marks
Dept. of Electrical Eng.-FT-10
University of Washington
Seattle, WA 98195

SSN#: XXXXXXXXXX
IEEE#: 6402291

If you have any comments or questions, please do not hesitate to contact me.

Sincerely,



Roy S. Nutter
NNC Treasurer

Attachments: Invoice & Receipts

cc: Robert J. Marks, II

IEEE 345 East 47th Street, New York, N.Y. 10017-2394, U.S.A.

file 037390

30-JUL-93 CUST. ACCT. NO. VENDOR NAME Marks, Robert J II VENDOR NO. 06402291

| INVOICE NO. | INVOICE DATE | DESCRIPTION | DISCOUNT AMOUNT | NET AMOUNT |
|-------------|--------------|---------------------------|-----------------|------------|
| 22-JUL-93 | 22-JUL-93 | EDITORIAL EXPENSES TNN | .00 | 233.33 |
| 22-JUL-93E | 22-JUL-93 | EXPENSE REIMBURSEMENT TNN | .00 | 174.87 |
| | | | \$.00 | \$408.20 |

PLEASE DETACH AND RETAIN THIS STATEMENT AS YOUR RECORD OF PAYMENT

Thank You

IEEE 345 East 47th Street, New York, N.Y. 10017-2394, U.S.A.

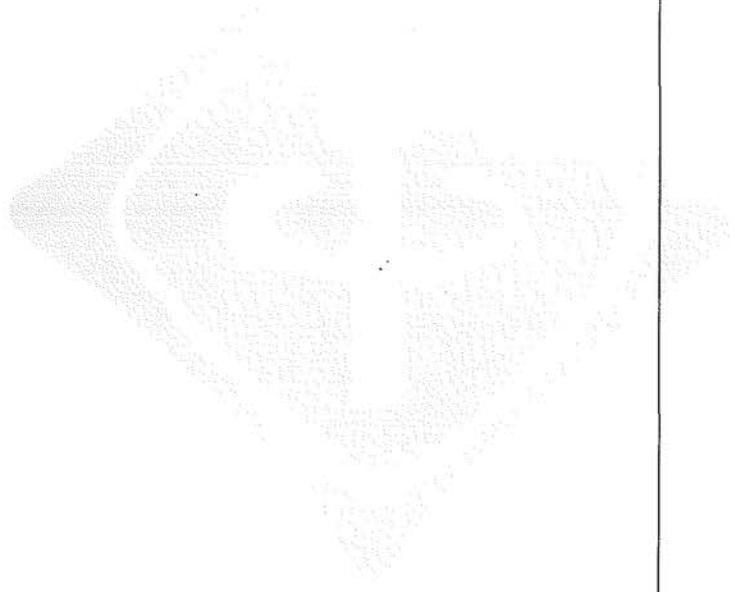
037391

30-JUL-93 CUST. ACCT. NO. VENDOR NAME Marks, Robert J II VENDOR NO. 06402291

INVOICE NO. INVOICE DATE DESCRIPTION DISCOUNT AMOUNT NET AMOUNT

| INVOICE NO. | INVOICE DATE | DESCRIPTION | DISCOUNT AMOUNT | NET AMOUNT |
|-------------|--------------|---|-----------------|------------|
| 17-JUN-93 | 22-JUL-93 | Expense Report For Period Ending 17-JUN-93 | .00 | 793.91 |

Rec'd 8/3/93



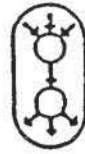
\$.00 \$793.91

PLEASE DETACH AND RETAIN THIS STATEMENT AS YOUR RECORD OF PAYMENT

Thank You



NEURAL NETWORKS COUNCIL



Robert J. Marks II
Past President

PLEASE REPLY TO:
Interactive Systems Design Laboratory
Department of Electrical Engineering, FT-10
University of Washington
Seattle, WA 98198 USA
Tel: (206) 543-6990 (O)
Tel: (206) 776-8995 (H)
Fax: (206) 543-3842
e-mail: marks@milton.u.washington.edu

June 29, 1993

Roy S. Nutter, Jr.
West Virginia University
821 Electrical Engineering
P. O. Box 6101
Morgantown, WV 26506

Dear Roy:

\$ 793.91

Enclosed is an Expense Report for the IEEE Editors Meeting held in New York City June 4.
Please request that a check be issued to cover these expenses and have it sent to me at my University address. Thank you.

Sincerely,

A handwritten signature in cursive that reads 'Bob' with a small flourish underneath.

Robert J. Marks II
Editor
Transactions on Neural Networks

SS# [REDACTED]
IEEE 6402291



THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.
EXPENSE REPORT FOR PERIOD ENDING

June 17, 1993

IEEE

TRAVELING IN CAPACITY OF (CHECK ONE)

- MEMBER OF IEEE STAFF _____ (Dept.)
- MEMBER OF IEEE BD. OF DIRECTORS/EXECUTIVE COMM.
- IEEE REGIONAL DIRECTOR
- IEEE STANDING BOARD OR COMMITTEE REPRESENTATIVE
- SOCIETY OFFICER Editor - Transactions NN
(Name of Board, Committee or Society)

| | | | | | | | | | |
|-------------------------|----|------------|---|----|---|----|--|--|--|
| NAME | | | | | | | | | |
| ROBERT | J. | MARKS | | | | | | | |
| (ADDRESS TO SEND CHECK) | | | | | | | | | |
| DEPT | OF | ELEC | - | FT | - | 10 | | | |
| UNIVERSITY | OF | WASHINGTON | | | | | | | |
| SEATTLE, | WA | 98195 | | | | | | | |

TRIP AUTHORIZATION NO. _____

PURPOSE OF TRIP - NOTE EACH DAY'S ACTIVITY

PROVIDE DETAILS AND FULL SUPPORT ON ITEMS (1), THROUGH (5)

Travel
Editors' Meeting
Personal Leave

Travel

| DETAILS | DATE | 6/3/93 | 6/4 | 6/5-6/11 | 6/11 | TOTAL EXPENSE | CHARGED DIRECT TO IEEE (5) |
|-------------------------------------|------|------------------|--------------|----------|--------------|---------------|----------------------------|
| | TOWN | Seattle/ NYC | NYC | | Seattle | | |
| PERSNL. AUTO MILEAGE | | | | | | | |
| TRANSPORTATION TOLLS - PARKING | | | | | | | |
| MILEAGE ALLOWANCE | | | | | | | |
| TAXI - BUS SEE REVERSE SIDE (1) | | 112 00 221 00 | 151 00 | | 21 00 | 691 00 | |
| PLANE - TRAIN - AUTO RENTAL | | 550 00* | | | | 550 00 | |
| LODGING/SELF | | 145 10 | | | | 145 10 | |
| MEALS/SELF SEE REVERSE SIDE (2) | | | 21 14 | | | 21 14 | |
| OFFICIAL GUEST SEE REVERSE SIDE (3) | | | | | | | |
| MISCELLANEOUS TEL & TEL. | | 1 67 | | | | 1 67 | |
| TIPS - GRATUITIES | | 3 00 | 2 00 | | 2 00 | 7 00 | |
| OTHER (4) | | | | | | | |
| TOTAL EXPENSE | | 732 77 | 38 14 | | 23 00 | 793 91 | |

PROVIDE DETAILS BELOW AND ATTACH FULL SUPPORT ON ITEMS (4) AND (5).

LESS CHARGED DIRECT TO IEEE

LESS ADVANCE FROM IEEE

BALANCE DUE FROM IEEE **793.91**

*This was the quoted price for round trip fare between Seattle and NYC-remainder on ticket covered personally

ACCOUNT NO.

AMOUNT

SIGNATURE *[Signature]* DATE

APPROVAL DATE

APPROVAL DATE

AMOUNT OF CHECK

BELOW FOR ACCOUNTING DEPT. USE ONLY

VENDOR NO.

DISTRIBUTED BY

APPROVED BY

Robert J. Marks II Library Archive
 READ INSTRUCTIONS ON REVERSE SIDE OF YELLOW COPY AND REFER TO
 IEEE TRAVEL REIMBURSEMENT MANUAL BEFORE COMPLETING THIS FORM



THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.
 EXPENSE REPORT FOR PERIOD ENDING

June 17, 1993

IEEE

| | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|
| NAME ROBERT J. MARKS | | | | | | | | | |
| (ADDRESS TO SEND CHECK) DEPT OF ELECTRICITY - FIT-10 | | | | | | | | | |
| UNIVERSITY OF WASHINGTON | | | | | | | | | |
| SEATTLE, WA 98195 | | | | | | | | | |

TRAVELING IN CAPACITY OF (CHECK ONE)

- MEMBER OF IEEE STAFF _____ (Dept.)
- MEMBER OF IEEE BD. OF DIRECTORS/EXECUTIVE COMM.
- IEEE REGIONAL DIRECTOR
- IEEE STANDING BOARD OR COMMITTEE REPRESENTATIVE
- SOCIETY OFFICER Editor - Transactions NN
 (Name of Board, Committee or Society)

TRIP AUTHORIZATION NO. _____

PURPOSE OF TRIP - NOTE EACH DAY'S ACTIVITY

Travel
 Editors' Meeting
 Personal Leave
 Travel

PROVIDE DETAILS AND FULL SUPPORT ON ITEMS (1), THROUGH (5)

| DETAILS | DATE | 6/3/93 | 6/4 | 6/5-6/11 | 6/11 | TOTAL EXPENSE | CHARGED DIRECT TO IEEE (5) |
|-------------------------------------|------|----------------|--------------|----------|--------------|---------------|----------------------------|
| | TOWN | Seattle/ NYC | NYC | | Seattle | | |
| PERSNL. AUTO MILEAGE | | | | | | | |
| TRANSPORTATION TOLLS - PARKING | | | | | | | |
| MILEAGE ALLOWANCE | | | | | | | |
| TAXI - BUS SEE REVERSE SIDE (1) | | 12 00 21 00 | 15 00 | | 21 00 | 69 00 | |
| PLANE - TRAIN - AUTO RENTAL | | 550 00* | | | | 550 00 | |
| LODGING/SELF | | 145 10 | | | | 145 10 | |
| MEALS/SELF SEE REVERSE SIDE (2) | | | 21 14 | | | 21 14 | |
| OFFICIAL GUEST SEE REVERSE SIDE (3) | | | | | | | |
| MISCELLANEOUS TEL & TEL | | 1 67 | | | | 1 67 | |
| TIPS - GRATUITIES | | 3 00 | 2 00 | | 2 00 | 7 00 | |
| OTHER (4) | | | | | | | |
| TOTAL EXPENSE | | 732 77 | 38 14 | | 23 00 | 793 91 | |

PROVIDE DETAILS BELOW AND ATTACH FULL SUPPORT ON ITEMS (4) AND (5).

| | |
|-----------------------------|--------|
| LESS CHARGED DIRECT TO IEEE | |
| LESS ADVANCE FROM IEEE | |
| BALANCE DUE FROM (X) IEEE | 793.91 |

*This was the quoted price for round trip fare between Seattle and NYC-remainder on ticket covered personally.

| ACCOUNT NO. | AMOUNT |
|-------------|--------|
| | |
| | |
| | |

SIGNATURE *[Signature]* DATE _____

APPROVAL _____ DATE _____

APPROVAL _____ DATE _____

AMOUNT OF CHECK \$ _____

BELOW FOR ACCOUNTING DEPT. USE ONLY

| | | |
|------------|----------------|-------------|
| VENDOR NO. | DISTRIBUTED BY | APPROVED BY |
| | | |

Robert J. Marks

Doral Inn

541 Lexington Avenue at 49th Street New York, NY 10022
 (212) 755-1200 • (800) 223-5823 • Fax: (212) 319-8344

②

MARKS, J ROBERT MR.
 DEPT OF ELECTRICAL ENG
 UNIV OF WASHINGTON 1131 199 ST
 SEATTLE, WA
 98195

ARRIVAL 6/03/93
 DEPARTURE 6/04/93
 NO. IN PARTY 1
 RATE 120.00

ACCOUNT NUMBER 1197569

ROOM NUMBER 716

| # | DATE | DESCRIPTION | AMOUNT |
|---------------|---------|--|----------|
| 1 | 6/03/93 | PHONE-LOCAL CALLS... 716 6031176007/1/4/23:41/9501022 | \$1.67 |
| 2 | 6/03/93 | ROOM..... 716/51682/1/4 | \$120.00 |
| 3 | 6/03/93 | N.Y.SALES TX 14 1/4% 716/51683/1/4 | \$17.10 |
| 4 | 6/03/93 | OCCUPANCY TAX..... 716/51684/1/4 | \$2.00 |
| 5 | 6/03/93 | NEW YORK OCC.TAX.5% 716/51685/1/4 | \$6.00 |
| *BALANCE DUE* | | | \$146.77 |

Receipt
 MED # 9285-12
 DATE 06/04/93
 ON 04:17 PM
 OFF 04:47 PM
 FARE \$ 15.00
 EXTRA \$ 0.00
 TOTAL \$ 15.00
 T&LC Telephone:
 212 221-TAXI

is not waived and
 in the event that the
 ocation fails to pay
 ese charges.

STREET

CITY STATE POSTAL CODE

SIGNATURE

PASSENGER TICKET AND BAGGAGE CHECK SUBJECT TO CONDITIONS CONTAINED IN THIS TICKET

ISSUED BY UNITED AIRLINES CONJUNCTION TICKETS(S) 6112 0005

NON-REFUNDABLE CHANGE SUBJECT TO ARC PASSENGER COUPON

ORIGIN/DESTINATION SEATTLE/SEA

BOOKING REFERENCE ROBERT

ISSUED IN EXCHANGE FOR

DATE OF ISSUE 19 MAY 93

PASSENGER NAME MARKS ROBERT DP

NOT TRANSFERABLE

STANDARD TRAVEL

PSGR CPN

50 86127-4

| FROM | TO | CARRIER | FLIGHT | CLASS | DATE | TIME | STATUS | FARE BASIS/TKT. DESIGNATOR | NOT VALID BEFORE | NOT VALID AFTER | ALLOW |
|-------------------|--------|---------|--------|-------|--------|------|--------|----------------------------|------------------|-----------------|-------|
| SEATTLE | TACOMA | UA | 142 | V | 03 JUN | 700A | OK | V14X236N | 03 JUN | 03 JUN | |
| CHICAGO | OHARE | UA | 810 | V | 03 JUN | 115P | OK | V14X236N | 03 JUN | 03 JUN | |
| PITTSBURGH | | UA | 825 | V | 03 JUN | 730P | OK | V14X236N | 03 JUN | 03 JUN | |
| WASHINGTON DULLES | | UA | 880 | V | 03 JUN | 930P | OK | V14X236N | 03 JUN | 03 JUN | |
| NEW YORK | LGA | | | | | | | | | | |

FARE CALCULATION

USD 542.73 SEA UA X/CHI UA X/PIT UA X/WAS UA NYC 180.91 UA X/WAS UA PIT 180.91 UA X/CHI UA SEA 180.91 542.73 END XESEA3LGA3

TAX 54.27 US

TAX 6.00 XE

FORM OF PAYMENT AX378743491952005 10/94

TOTAL USD 603.00

CONTROL NO. 0011/6600 JT

016 7735241392 4 0

0162 10

DO NOT MARK OR WRITE IN THE WHITE AREA ABOVE

**LAGUARDIA AIRPORT
 CONSOLIDATED GROUND
 TRANSPORTATION CENTER**

(B)

RESERVATION # 6143 FARE 12

DESTINATION Seal H

COMPANY G/L PICKUP TIME 5/10/93

ALL PICK-UP TIMES ARE APPROXIMATED AND ARE THE RESPONSIBILITY OF THE COMPANY YOU SELECTED.

Please pay the driver. No money transactions are conducted at this counter.

To better serve you, the Port Authority of New York and New Jersey, in cooperation with our transportation permittees and participating Airlines, is operating this Consolidated Ground Transportation Information/Reservations Center. Our agents are happy to have answered any questions you may have had, including fare inquiries. *Having made a reservation for you with the operator of your choice, the reservations agent will call your name and the number at the top of this flyer when your driver has arrived.*

Please keep this flyer with you. The information on the back will help you to arrange your next trip to LaGuardia Airport. Following is a brief description of the three types of services offered:

Scheduled Services normally operate every 30-60 minutes.



IEEE

SERVICE CENTER

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.
445 HOES LANE, P.O. BOX 1331, PISCATAWAY, NJ 08855-1331, U.S.A. TEL. (201) 981-0060 TELEX 833233

MEMORANDUM

TO: IEEE General Manager

DIRECT NUMBER (201) 562-

FROM:

DATE:

SUBJECT: Unsupported Travel Expenses

This is to certify that expenses as outlined below were incurred by me in the course of carrying out IEEE activities. The receipts, as required by IEEE Policy Statement 11.6, could not be obtained because of circumstances in the matter of payment.

| DATE | AMOUNT | TYPE OF EXPENDITURE | CIRCUMSTANCES |
|------|--------|--|-------------------|
| 6/3 | 21.00 | Transportation - Airporter to airport | Receipt misplaced |
| 6/11 | 21.00 | Transportation - Airporter from airport | Receipt misplaced |
| | | | |
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| | | | |
| | | | |

Approval
(IEEE General Manager, IEEE Deputy General
Manager or IEEE Controller)

Signed

FORM NO. A-153

Charge
\$570 or whatever
NY ROUND TRIP WAS

BOB'S
NY
TRIP

TRAVEL TO NY

TO $\frac{1}{2}$ FROM SEA TAC

\$21 + 2^{TIP} = \$23

R

(NO Receipt)

AIR FARE (A)

x 2

NY BUS TO HOTEL: \$12 (B)

HOTEL \$146 (C)

NY TAXI TO AIRPORT \$15 + \$2 TIP

EVENING MEAL ON THURS: \$21 (D) (NO Receipt)

~~FRIDAY - NO ME~~

NO OTHER MEALS.

Purpose: IEEE Editors Panel

READ INSTRUCTIONS (REVERSE SIDE) OF THIS FORM TO
 IEEE TRAVEL REIMBURSEMENT MANUAL BEFORE COMPLETING THIS FORM

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.
EXPENSE REPORT FOR PERIOD ENDING

11/12, 19 93



TRAVELING IN CAPACITY OF (CHECK ONE)

| | | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|--|
| NAME Robert J. Marks II | | | | | | | | | | |
| (ADDRESS TO SEND CHECK) Dept of Elec Engrg - RT-10 | | | | | | | | | | |
| University of Washington | | | | | | | | | | |
| Seattle, WA 98195 | | | | | | | | | | |

- MEMBER OF IEEE STAFF _____ (Dept.)
- MEMBER OF IEEE BD. OF DIRECTORS/EXECUTIVE COMM.
- IEEE REGIONAL DIRECTOR
- IEEE STANDING BOARD OR COMMITTEE REPRESENTATIVE
- SOCIETY OFFICER
 Neural Networks Council
 (Name of Board, Committee or Society)

TRIP AUTHORIZATION NO. _____ PURPOSE OF TRIP - NOTE EACH DAY'S ACTIVITY

Travel

* President's Forum ICNN Perth Meeting

ICONIPS Meeting, New Zealand RIG Mtg, NNC Banq

Travel

PROVIDE DETAILS AND FULL SUPPORT ON ITEMS (1), THROUGH (5)

| DETAILS | DATE | 10/20/93 | 10/26 | 10/27 | 10/28 | 10/29 | TOTAL EXPENSE | CHARGED DIRECT TO IEEE (5) |
|--|------|----------------|-----------------|-----------------|-----------------|----------------|-----------------|----------------------------|
| | TOWN | Seattle | Nagoya | Nagoya | Nagoya | | | |
| PERSNL. AUTO MILEAGE | | | | | | | | |
| TRANSPORTATION TOLLS - PARKING | | | | | | | | |
| MILEAGE ALLOWANCE | | | | | | | | |
| TAXI - BUS SEE REVERSE SIDE (1) | | 21 00 | 19 00 | 18 90 | 10 90 | 21 00 | 98 80 | |
| PLANE - TRAIN - AUTO RENTAL | | | | | | | | |
| LODGING/SELF | | | 147 64 | 147 64 | 147 64 | | 442 92 | |
| MEALS/SELF SEE REVERSE SIDE (2) | | | | | | | | |
| OFFICIAL GUEST SEE REVERSE SIDE (3) | | | | | | | | |
| MISCELLANEOUS TEL & TEL. | | | | | | | | |
| TIPS - GRATUITIES | | 2 00 | | | | 2 00 | 4 00 | |
| OTHER (4) | | | | | | | | |
| TOTAL EXPENSE | | 23 00 | 166 64 | 166 54 | 166 54 | 23 00 | 545 72 | |

PROVIDE DETAILS BELOW AND ATTACH FULL SUPPORT ON ITEMS (4) AND (5).

(4) Based on conversion rate of 108.37

| | |
|-----------------------------|----------|
| LESS CHARGED DIRECT TO IEEE | |
| LESS ADVANCE FROM IEEE | |
| BALANCE DUE FROM (TO) IEEE | 545 72 |

| ACCOUNT NO. | AMOUNT |
|-------------|--------|
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| | |

SIGNATURE _____ DATE _____

APPROVAL _____ DATE _____

APPROVAL _____ DATE _____

AMOUNT OF CHECK

BELOW FOR ACCOUNTING DEPT. USE ONLY

| | | |
|------------|----------------|-------------|
| VENDOR NO. | DISTRIBUTED BY | APPROVED BY |
| | | |

4842 0308 1164 5317

08/94 CV
ROBERT J MARKS II OR

カード所持者 (CARD HOLDER) 有効期限 (EXPIRES)
ご利用場所 (FACILITY) 日付 (DATE)

名古屋東急ホテル 931029
NAGOYA TOKYU HOTEL

CREDIT CARD RECORD OF CHARGES

金額 AMT. 50060

承認番号 振替者

- 1 TOKYU CARD TOP
- 2 日本ダイナースクラブ
- 3 DCカード
- 4 JCB CARD
- 5 ミリオンカード
- 6 VISA
- 7 ユニオンクレジット
- 8 日本信販
- 9 センチュリー
- 10 その他()

お客様にお渡し下さい

毎度ご利用を頂きまして誠にありがとうございます。
THANK YOU FOR YOUR VALUED PATRONAGE



東急ホテルチェーン

財-045

| DATE | AMOUNT | LOCATION | DESCRIPTION |
|-------|--------|----------------|----------------------|
| 10/28 | 18.90 | Hotel | Conference Center |
| 10/29 | 21.00 | SeaTac Airport | Home in Lynnwood, WA |
| | | | |
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MEALS - SELF (2)

| DATE | AMOUNT | BREAKFAST | LUNCH | DINNER | SOCIAL |
|------|--------|-----------|-------|--------|--------|
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MEALS - OFFICIAL GUEST (3)

| DATE | AMOUNT | NAME/NAMES OF GUEST | PURPOSE OF MEETING |
|------|--------|---------------------|--------------------|
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**PROVIDE DETAILS BELOW OF SUMMARY EXPENSES
 AS REPORTED ON FRONT OF THIS REPORT**

TAXI - BUS (1)

| DATE | AMOUNT | FROM | TO |
|-------|--------|----------------------|----------------------|
| 10/20 | 21.00 | Home in Lynnwood, WA | SeaTac Airport |
| 10/26 | 19.00 | Hotel | Conference Center |
| 10/27 | 18.90 | Hotel | Conference Center |
| 10/28 | 18.90 | Hotel | Conference Center |
| 10/29 | 21.00 | SeaTac Airport | Home in Lynnwood, WA |
| | | | |
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MEALS - SELF (2)

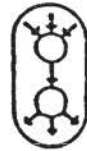
| DATE | AMOUNT | BREAKFAST | LUNCH | DINNER | SOCIAL |
|------|--------|-----------|-------|--------|--------|
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MEALS - OFFICIAL GUEST (3)

| DATE | AMOUNT | NAME/NAMES OF GUEST | PURPOSE OF MEETING |
|------|--------|---------------------|--------------------|
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NEURAL NETWORKS COUNCIL



Robert J. Marks II
Past President

PLEASE REPLY TO:
Interactive Systems Design Laboratory
Department of Electrical Engineering, FT-10
University of Washington
Seattle, WA 98198 USA
Tel: (206) 543-6990 (O)
Tel: (206) 776-8995 (H)
Fax: (206) 543-3842
e-mail: marks@milton.u.washington.edu

Roy S. Nutter, Jr.
West Virginia University
821 Electrical Engineering
P. O. Box 6101
Morgantown, West Virginia 26506

Dear Roy:

Enclosed is my expense report for my recent trip to Nagoya, Japan, in the amount of \$545.72. Please have the check made out to me and mailed to me at the University address.

Sincerely,

Robert J. Marks II
Past President

Enclosures

お 勘 定 書
STATEMENT

033575



〒460 名古屋市中区栄4丁目6番8号

TEL (052) 251-2411

FAX (052) 251-2422

お名前
NAME

MR.
MS.

MARKS BOB

様

| お部屋番号 ROOM NO. | お部屋代 RATE | 人 数 PAX | ご到着日 ARRIVAL | ご出発日 DEPARTURE | PAGE |
|-------------------|--------------|------------|-----------------|-------------------|------|
| 1143 | | 1 | 93-10-26 | 93-10-29 | 1 |

| 日付 DATE | 室番号 ROOM NO. | 摘 要 DESCRIPTION | 料 金 CHARGE | 支 払 CREDIT | 残 高 BALANCE | 備 考 REMARKS |
|------------|-----------------|--|-----------------|---------------|----------------|----------------|
| 10-26 | 1143 | 御宿泊料 (内特消費税 452) (内消費税 452) | 16,000 | | | |
| 10-27 | 1143 | 有料テレビ 御宿泊料 (内特消費税 452) (内消費税 452) | 1,000 16,000 | | | |
| 10-28 | 1143 | 有料テレビ 御宿泊料 (内特消費税 452) (内消費税 452) | 1,000 16,000 | | | |
| 10-29 | 1143 | 消費税 | 60 | | | |
| | | | 50,060 | | 50,060 | |

RECEIVED
 452
 452
 60
 50,060
 PAID BY CREDIT CARD

ご 請 求 金 額
BALANCE DUE

50,060

明 細 発 行

ご 署 名
SIGNATURE

025855-00-13-1011

発行日
ISSUED

93-10-29

担当者村瀬 公洋
CLERK

営1001

ありがとうございました。またのご利用をお待ち申し上げます。
誠に勝手ながらサービス料としてお勘定の10%及び規定の税金を加算させていただきます。
Thank you. May we have the pleasure of service again.
A 10% service charge and government tax will be added to your bill.

Ruth,

Please send bill to Roy
Nutter @ NNC. He gets
billed only, hotel bill @ Seattle
shuttle bill and @ 3 Nagoya
taxi bills (2060¥, 2050¥
and 2050¥) from hotel
to conference sight. I have
no receipts for taxi.

- Bob -

10:28 President's Forum,
ICNN Perth Meeting

10/28 ICONIPS Meeting
New Zealand ORIG meeting
NNC Banquet



IEEE

SERVICE CENTER

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.
445 HOES LANE, P.O. BOX 1331, PISCATAWAY, NJ 08855-1331, U.S.A. TEL. (201) 981-0060 TELEX 833233

MEMORANDUM

TO: IEEE General Manager

DIRECT NUMBER (201) 562-

FROM:

DATE:

SUBJECT: Unsupported Travel Expenses

This is to certify that expenses as outlined below were incurred by me in the course of carrying out IEEE activities. The receipts, as required by IEEE Policy Statement 11.6, could not be obtained because of circumstances in the matter of payment.

| <u>DATE</u> | <u>AMOUNT</u> | <u>TYPE OF EXPENDITURE</u> | <u>CIRCUMSTANCES</u> |
|-------------|---------------|----------------------------|----------------------|
| 10/20 | 21.00 | Shuttle Bus | Lost receipt |
| 10/26 | 19.00 | Taxi | No receipt given |
| 10/27 | 18.90 | Taxi | " |
| 10/28 | 18.90 | Taxi | " |
| 10/29 | 21.00 | Shuttle Bus | Lost receipt |
| | | | |
| | | | |
| | | | |
| | | | |

Approval
(IEEE General Manager, IEEE Deputy General
Manager or IEEE Controller)

Signed

FORM NO. A-153



UNIVERSITY OF WASHINGTON
Request For Per Diem Rates / Foreign Currency Exchange Rates
Outside The Continental USA
 TRAVEL OFFICE, ND-10, FAX # 685-3865

RETURN TO:

| | | |
|-------------------|--------------|-------------------|
| Name | Ruth Bennett | |
| Department | | Mail Stop FT-10 |
| Or Send to (Name) | | Fax Number 3-3842 |
| Date of Request | 11/10/93 | |

| 1. Please provide the PER DIEM RATE(S) for the following location(s) outside the continental United States: | | | This column for Travel Office use only | |
|---|------|---------|--|-------|
| Country | City | Date(s) | Lodging | Meals |
| | | | \$ | \$ |
| | | | \$ | \$ |
| | | | \$ | \$ |
| | | | \$ | \$ |
| | | | \$ | \$ |

| 2. Please provide the FOREIGN CURRENCY EXCHANGE RATE(S) for the following locations: | | | This column for Travel Office use only | |
|--|--------|--------------|--|--------|
| Country | | Date(s) | | |
| Japan | Nagoya | 10/27, 10/28 | + | 108.37 |
| | | | + | |
| | | | + | |
| | | | + | |

Note: To get the amount in U.S. dollars, divide the foreign currency amount by the figure noted in the right column.

UoW 1828 (10/91) D71.10

UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98195

Department of Electrical Engineering, FT-10
Telephone: (206) 543-2150
FAX: (206) 543-3842

December 20, 1993

Roy S. Nutter, Jr., Treasurer
IEEE Neural Networks Council
West Virginia University
821 Electrical Engineering
P. O. Box 6101
Morgantown, WV 26506

Dear Dr. Nutter:

As I entered Prof. Marks' 12/14 expense report on my chart, I realized that there are four reports that were filed that I do not have marked as reimbursed. Would you please check to see if the following were submitted for reimbursement:

| | | |
|----------|-------------------------|----------------------|
| 8/11/93 | Past President expenses | \$320.29* |
| 9/8/93 | Past President expenses | 228.53 |
| 10/14/93 | TNN Editor expenses | 171.69* |
| 11/12/93 | Trip to Nagoya | 545.72* <i>rec'd</i> |

I have enclosed the first page of the request for each of the amounts marked with a * and the letter you sent to Marilyn Prusan for the remaining amount. I have complete copies of the documentation. Please let me know if these reimbursements have been issued or if you need copies of any of the documents.

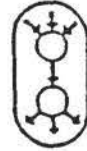
Sincerely,

Ruth Wagner Bennett
Secretary to Robert J. Marks II

Enclosures - 4



NEURAL NETWORKS COUNCIL



Robert J. Marks II
Past President

PLEASE REPLY TO:
Interactive Systems Design Laboratory
Department of Electrical Engineering, FT-10
University of Washington
Seattle, WA 98198 USA
Tel: (206) 543-6990 (O)
Tel: (206) 776-8995 (H)
Fax: (206) 543-3842
e-mail: marks@milton.u.washington.edu

August 11, 1993

Roy S. Nutter, Jr., Treasurer
IEEE Neural Networks Council
West Virginia University
821 Electrical Engineering
P.O. Box 6101
Morgantown, WV 26506

Dear Roy,

Enclosed are original receipts for expenses incurred in my duties as Past President of the IEEE NNC.

| | | | |
|-------|-----------|----------|--|
| #1 | MCI phone | \$ 27.57 | (telephone) |
| #2 | MCI phone | \$242.32 | (telephone‡) |
| #3 | Shipping | \$50.40 | (flyers to Karen Haines to take to SIGGRAPH) |
| TOTAL | | \$320.29 | |

Please remit this amount to me at the above address.

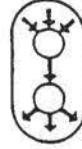
Sincerely,

Robert J. Marks, Editor-in-Chief
IEEE Transactions on Neural Networks

Robert J. Marks II
SS# [REDACTED]
IEEE# 6402291

‡ Japan call was to Toshio Fukuda.

file



IEEE

NEURAL NETWORKS COUNCIL

Roy S. Nutter, Jr.
Treasurer

September 8, 1993

PLEASE REPLY TO:
West Virginia University
Department of Electrical and
Computer Engineering
821 Engineering Sciences Bldg.
P.O. Box 6101
Morgantown, WV 26506-6101 USA
Tel: (304) 293-6371 Ext. 510
Fax: (304) 293-5024
E-mail: rsn@a.coe.wvu.wvnet.edu

Marilyn Prusan
Finance Administrator
IEEE Technical Activities
445 Hoes Lane
P.O. Box 1331
Piscataway, NJ 08855-1331

Dear Ms. Prusan:

Attached are receipts for MCI Phone Charges, Misc. Office Supplies, and Fax Paper totaling \$228.53 from Robert J. Marks for expenses incurred in his duties as Past President of the IEEE NNC. These expenses were directly connected to his duties as Past President of IEEE NNC and should be charged to the Transactions on Neural Networks Account. Please reimburse Mr. Marks for the above amount and have a check sent to him at the following address:

Robert J. Marks
University of Washington
Department of Electrical Engineering
c/o 1131 199th Street S.W., Suite N
Lynnwood, WA 98036-7138

SSN: [REDACTED]
IEEE#: 6402291

If you have any comments or questions, please do not hesitate to contact me.

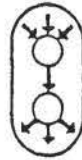
Sincerely,

Roy S. Nutter
NNC Treasurer

cc: Robert J. Marks



TRANSACTIONS ON NEURAL NETWORKS
NEURAL NETWORKS COUNCIL



Robert J. Marks II
Editor-in-Chief

PLEASE REPLY TO:
University of Washington
Department of Electrical Engineering
c/o 1131 199th Street S.W., Suite N
Lynnwood, WA 98036-7138 USA

October 14, 1993

Roy S. Nutter, Jr., Treasurer
IEEE Neural Networks Council
West Virginia University
821 Electrical Engineering
P.O. Box 6101
Morgantown, WV 26506

Roy,

Enclosed are receipts for my expenses as TNN Editor.

| | |
|-----------------|----------------|
| Office Supplies | \$42.17 |
| MCI Phone | \$63.99 |
| MCI Phone | <u>\$65.53</u> |
| Total | \$171.69 |

Please remit reimbursement to the address on the letterhead.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. Marks II', written in a cursive style.

Robert J. Marks II

Robert J. Marks II
SS# [REDACTED]
IEEE# 6402291



THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.
 EXPENSE REPORT FOR PERIOD ENDING

11/12, 19 93

IEEE

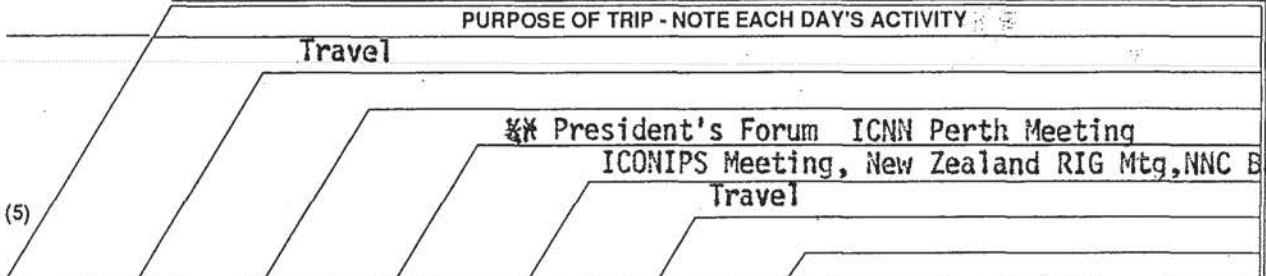
TRAVELING IN CAPACITY OF (CHECK ONE)

- MEMBER OF IEEE STAFF _____ (Dept.)
- MEMBER OF IEEE BD. OF DIRECTORS/EXECUTIVE COMM.
- IEEE REGIONAL DIRECTOR
- IEEE STANDING BOARD OR COMMITTEE REPRESENTATIVE
- SOCIETY OFFICER
- Neural Networks Council
 (Name of Board, Committee or Society)

| | | | | | | | | | | | | | | | | | | | | |
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| LODGING/SELF | | | 147 64 | 147 64 | 147 64 | | 442 92 | |
| MEALS/SELF SEE REVERSE SIDE (2) | | | | | | | | |
| OFFICIAL GUEST SEE REVERSE SIDE (3) | | | | | | | | |
| MISCELLANEOUS TEL & TEL | | | | | | | | |
| TIPS — GRATUITIES | | 2 00 | | | | 2 00 | 4 00 | |
| OTHER (4) | | | | | | | | |
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Telephone: (206) 543-2150
FAX: (206) 543-3842

December 30, 1993

Roy S. Nutter, Jr.
West Virginia University
821 Electrical Engineering
P. O. Box 6101
Morgantown, WV 26506

Dear Roy:

Enclosed is a copy of my order for the 1994 IEEE Membership Directory. Please request that a check be issued to cover this expense and have it sent to me at my University address. Thank you.

Sincerely,



Robert J. Marks II
Editor
Transactions on Neural Networks

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Did you know that roughly 1/3 of all IEEE members change their address every 18 months? Our annual Membership Directory, published each April, gives you quick access to the names and current addresses, titles and (unless otherwise noted) telephone numbers of all members and Society affiliates - now over 320,000 records! Plus, the Directory includes award winners and biographies of IEEE Fellows, making it a convenient way to contact the ones who have the professional information you need.

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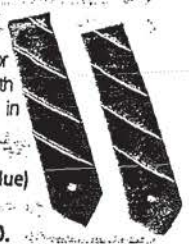
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FUZZ-IEEE/IFES'95

Secretary

C/O Laboratory for International Fuzzy Engineering Research
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Yokohama-shi, 231 Japan
Phone : +81-45-212-8268 Fax: +81-45-212-8255
E-mail : mieko@fuzzy.or.jp

Date :

January 25, 1993

| | |
|---------|---|
| TO : | Co-Chairmen of the Conference: Kaoru Hirota(Hosei Univ.), Toshio Fukuda (Nagoya Univ.) |
| | <u>FUZZ-IEEE/IFES'95</u> Yokohama Japan March 20-24, 1995 |
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YOUR NAME : Robert J. Marks II

YOUR ADDRESS : Dept. of Elec. Engr. - FT-10
University of Washington
Seattle, WA 98195

PHONE: 206-543-6990

FAX: 206-543-3842

E-MAIL: marks@u.washington.edu

- Include my name in the Program Committee Members
 Exclude my name from the Program Committee members

Please send this form by Jan. 17 to: Address of LIFE (Ms. Hemmi)

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Siber Hegner Building 4F, 89-1 Yamashita-cho Naka-ku
Yokohama-shi, 231 Japan
Phone : +81-45-212-8268 Fax: +81-45-212-8255
E-mail : mieko@fuzzy.or.jp

University of Washington Correspondence
INTERDEPARTMENTAL

Date: February 16, 1993
To: James A. Ritcey, Chair
Signal Processing and Communications Professional Group
From: Robert J. Marks II, Electrical Engineering FT-10 *Bob*
Subject: EE500 for Spring Quarter, 1993

I propose to offer an EE500 course, Spring Quarter, entitled "Topics in Fuzzy Systems."
The seminar will be open to all graduate students.

In the seminar, participants will view six two-hour IEEE tutorials on fuzzy systems, followed by discussion.

I will co-offer this with Professor El-Sharkawi.

I herewith petition the SP&C Group to approve this proposal and forward to the Graduate Studies Committee.

WINTER QUARTER 1993

EE400: *Introduction to Fuzzy Systems*

Prof. Robert J. Marks II

Three Credits

Winter quarter, 1994.

Prerequisite: EE370, STAT390 or permission of the instructor.

- Texts:

- ◆ G.J. Klir and T.A. Folger, *Fuzzy Sets, Uncertainty and Information*, Prentice Hall, 1988.

- Reference:

- ◆ T. Terano, K. Asai & M. Sugeno, *Fuzzy Systems Theory and Its Applications*, Academic Press, 1992
- ◆ J.C. Bezdek & S.K. Pal, *Fuzzy Models for Pattern Recognition*, IEEE Press, 1992.
- ◆ '92 FUZZ-IEEE Proceedings
- ◆ *IEEE Transactions on Fuzzy Systems*

- Course Outline

- ◆ Crisp sets and fuzzy sets.
- ◆ Operations on Fuzzy sets
- ◆ Fuzzy relations.
- ◆ Fuzzy measures.
- ◆ Adaptive Fuzzy Processing.
- ◆ Uncertainty and information.
- ◆ Applications.

ABSTRACT:

Fuzzy theory, in part, seeks to provide an accurate and useful model of uncertainty. Fuzzy modeling, based on relative membership of elements in sets, has a firm axiomatic base from which advance concepts are developed. These concepts are then applied to such problems as fuzzy inferencing, fuzzy control and fuzzy pattern recognition. Prerequisites include a firm working knowledge of both conventional (crisp) set theory and probability.

- Students will read and summarize a paper on a contemporary fuzzy topic.

file

UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98195

Department of Electrical Engineering, FT-10
Telephone: (206) 543-2150
FAX: (206) 543-3842

June 16, 1993

Dr. Robert J. Marks II
Department of Electrical Engineering

Dear Dr. Marks: *Bob*

The Department has just been notified that your proposal on "Tune & Prune Adaptation of Fuzzy Inference Engines" has been recommended for funding by the Royalty Research Fund Committee. Congratulations!

Sincerely,

Mark

Mark J. Damborg
Professor and Acting Chair

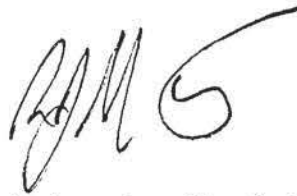
University of Washington Correspondence

INTERDEPARTMENTAL

*Department of Electrical Engineering, FT-10;
(206) 543-6990, 543-6061 or 543-2150; FAX (206) 543-3842; marks@u.washington.edu*

April 21, 1993

TO: Frank Alexandro, Chair
Undergraduate Study Committee
FROM: Robert J. Marks II
SUBJECT: EE400



The attached proposal has been approved by the Signal Processing and Communications Professional Group.

I forward the proposal to you for additional consideration.

I would be happy to meet with the Committee, if so requested.

cc: J.A. Ritcey

WINTER QUARTER 1993

EE400: *Introduction to Fuzzy Systems*

Prof. Robert J. Marks II

Four Credits

Winter quarter, 1994.

Prerequisite: EE370, STAT390 or permission of the instructor.

- Texts:

- ◆ G.J. Klir and T.A. Folger, *Fuzzy Sets, Uncertainty and Information*, Prentice Hall, 1988.
- ◆ T. Terano, K. Asai & M. Sugeno, *Fuzzy Systems Theory and Its Applications*, Academic Press, 1992

- Reference:

- ◆ J.C. Bezdek & S.K. Pal, *Fuzzy Models for Pattern Recognition*, IEEE Press, 1992.
- ◆ *Proceedings of FUZZ-IEEE*
- ◆ *IEEE Transactions on Fuzzy Systems*

- Course Outline

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- Students will perform a course project.

Engineering science: 2 credits

Engineering design: 2 credits



The Washington Technology Center Facsimile Cover Sheet

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*Ruth:
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Alden*

OK

To: Name: Robert Marks

Company: IW *called 4/22/93*

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From: Name: Alden Jones

Date: April 19, 1993

Number of pages, including cover:

Comments

We would very much like to include a story on your work in the Spring issue of WTC's At-A-Glance newsletter. Could you review the proposed copy attached and fax back your edits and/or approval? We need to hear from you no later than Tuesday, April 20th by 4 PM.

Thank you in advance for your speedy assistance.

If you have any questions, please do not hesitate to contact me between 1-5 PM at 685-1920, ext. 30.

Alden

Inquiries to: The Washington Technology Center, University of Washington,
Fluke Hall, FJ-15, Seattle, WA 98195, USA

General Phone: (206) 685-1920

Internet ID:

"TO MARKET TO MARKET" FOR FNN

Financial Neural Networks (FNN), Inc. of **Kirkland**, is co-sponsoring a project with the WTC to improve its current artificial neural network-based software package used to predict performance of the Standard & Poor 500. The proposed package, to be completed this fall, applies cutting-edge time frequency algorithms and fuzzy logic expert systems developed by UW researchers. These innovative algorithms, currently being applied to interpret signals from machining tools and to predict utility power usage, developed under other WTC-funded projects, should significantly enhance FNN's existing model by providing the ability to readapt the "rules" as market conditions change. Investors using such advanced neural network and fuzzy logic systems to reduce portfolio risk are on the rise on Wall Street. Company president, Dr. Michael Montgomery and WTC researchers, Dr. Bob Marks, Dr. Seho Oh and Russ Reed, estimate over 80 trading firms in the Pacific Northwest (controlling approximately \$75 billion dollars in assets annually) are candidates for licensing the improved software package developed as a result of this project.

University of Washington Correspondence

INTERDEPARTMENTAL

DEPARTMENT OF ELECTRICAL ENGINEERING, FT-10

November 6, 1992

To: Robert J. Marks II
From: Thomas A. Seliga, Chairman *TASeliga*
Subject: Memorandum of Understanding

As per our meeting of November 25 on the subject of your consultations with M-D Systems and FNN and possible support from WTC on a project for those companies, attached please find a draft Memorandum of Understanding for your review. I look forward to finalizing this agreement and submitting it and other related materials to the College for its consideration.

University of Washington Correspondence
INTERDEPARTMENTAL

Date: February 16, 1993
To: James A. Ritcey, Chair
Signal Processing and Communications Professional Group
From: Robert J. Marks II, Electrical Engineering FT-10 *Bob*

Attached is a proposal for EE400, "Introduction to Fuzzy Systems: to be given during Winter Quarter, 1994. The course has been offered before during the 1992 summer quarter as EE595. Due to a number of factors, I believe the course will be better offered at the senior level.

I request my proposal be considered by the SP&C Group and, if approved, forwarded to the Undergraduate Studies Committee.

CC: Prof. Frank Alexandro
Chairman and Undergraduate Program Coordinator

WINTER QUARTER 1993

EE400: *Introduction to Fuzzy Systems*

Prof. Robert J. Marks II

Three Credits

Winter quarter, 1994.

Prerequisite: EE370, STAT390 or permission of the instructor.

- Texts:

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- Reference:

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- ◆ Adaptive Fuzzy Processing.
- ◆ Uncertainty and information.
- ◆ Applications.

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- Students will read and summarize a paper on a contemporary fuzzy topic.

University of Washington Correspondence
INTERDEPARTMENTAL

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Signal Processing and Communications Professional Group
From: Robert J. Marks II, Electrical Engineering FT-10 *Bob*
Subject: EE500 for Spring Quarter, 1993

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In the seminar, participants will view six two-hour IEEE tutorials on fuzzy systems, followed by discussion.

I will co-offer this with Professor El-Sharkawi.

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CC: Prof. Frank Alexandro
Chairman and Undergraduate Program Coordinator

WINTER QUARTER 1993

EE400: *Introduction to Fuzzy Systems*

Prof. Robert J. Marks II

Three Credits

Winter quarter, 1994.

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- Reference:

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- ◆ '92 FUZZ-IEEE Proceedings
- ◆ *IEEE Transactions on Fuzzy Systems*

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- ◆ Fuzzy measures.
- ◆ Adaptive Fuzzy Processing.
- ◆ Uncertainty and information.
- ◆ Applications.

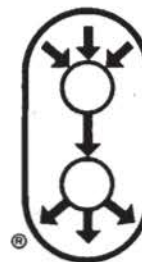
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- Students will read and summarize a paper on a contemporary fuzzy topic.

IEEE Neural Networks Council AdCom Meeting

March 27, 1993
San Francisco, California



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7:30



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PROPOSED AGENDA
NNC ADCOM MEETING
San Francisco, California
March 27, 1993

VR
8 to 10
Taylor for A

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 - Treasurer
 - 1993 Budget status - 53
 - Secretary
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 - WWW Meetings, July & October 1993 (Fukuda)
 - Nagoya '93 IJCNN (Fukuda)
 - ~~Power Forum '93 (Marks)~~
 - SP Forums (Marks)
 - ~~VRAIS '93 (Marks)~~
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 - a. San Francisco Conferences
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 - a. New Council Activities
 - b. Council History
 - c. Next meeting at VRAIS '93 in Seattle

MARIS

Sanchez-Sinencio

NOT

Nominations
Committee



IEEE NEURAL NETWORKS COUNCIL
March 25, 1993

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MINUTES
IEEE NNC ADCOM
December 5, 1992
Phoenix, AZ

The meeting was called to order at 1:17 p.m. at the Arizona Biltmore Hotel by President Russ Eberhart.

Two written Proxies were presented by Simpson (attachment #1). Nagel presented one written Proxy (attachment #2).

Introduction of attendees ("*" denotes AdCom voting member):

M.A. El-Sharkawi (PES)*, R.J. Marks II (NNC PP)*, R.W. Newcomb (CAS)*, E. Sanchez-Sinencio (CAS)*, Enrique Ruspini (FUZZ-IEEE/ICNN '93), Kesh Bakhru (Comm)*, Walter J. Karplus (Standards), Bob Lobbia (Chair, San Diego Section), P.K. Simpson (VP)*, R. Alan (SIT)*, D. Wunsch (SIT) *, L. Atlas*, Benjamin Wah (CS)*, Oscar N. Garcia (CS) *, S.V. Kartalopoulos (Comm)*, E. Tzanakou (IE)*, J. Bezdek (Meetings Chair), Wes Snyder (R&A)*, D. Kaplan (VRAIS), H.V. Poor (Division X Director), D.E. Brown (SM&C) *, T. Fukuda (NNC Secretary) *, T. Nagle (IE) *, Nomi Feldman (Meeting Management), Steve Marlin (Meeting Management), Gerry Harris (EMBS President), C. Robinson (EMBS)*

Agenda changes:

Nominations Committee added to Agenda Stam Brown

Changes to previous minutes:

Bezdek: Noted that the VRAIS '93 budget from Blue Book received approval according to previous Baltimore Minutes, including a 20K advance to VRAIS '93. An additional \$25K in seed money was also approved. (The VRAIS '93 budget was added to the agenda, and approved later in the meeting.)

On page 17: Under "ACTION", revise to read "Nagle, Robinson and Garcia will investigate..."

On page 15: correct spelling of Kartalopolous

On page 12: revise to read "blocked currency" MaARKS lITSA Okayed

Marks moved the Consent Agenda, Pat Simpson seconded, and it was approved.

President's Report

Eberhart said TAB approved membership of Power Engineering Society, Computer Society and SIT Society on NNC AdCom. USAB has been requested to make it clear that they don't represent all IEEE organizations and members on issues (attachment 2a). A procedure was put into place for dealing with disputes arising from publications decisions (see attachment 3). Three motions from the IEEE meetings committee were defeated by TAB (attachment 4).

An Asian Neural Network Association being formed. We will help if

asked.

Center for the History of EE: Bob Marks is the liaison for the Council.

Leonard Damm has submitted a proposal for writing the history of NN's. We want someone with significant experience in the field.

From Magnetics Society: (attachment 5) The TAB New Technologies Direction Meeting is seeking new members.

Transactions on Neural Networks is in red by 30k. Eberhart and Marks will find out why. Reserves of the Council are about 300k.

Vice President
No Report

Treasurer
Not Present

Secretary
No Report

NN TNN (Marks)
Marks elaborated on report given in green book.

TFS (Bezdek)
The first issue of IEEE TFS will be out February 1993. There are 57 papers in the hopper. The TFS Board of Editors will be presented in San Francisco.

CoNNECTIONS Newsletter (Wes Snyder)
Report deferred to publications committee

Awards (Eberhart)
Pioneer award (David Willshaw) presented at Beijing.
Eberhart was tasked to give El-Sharkawi names & addresses of new Pioneers.

Education
Partial reimbursement was given to some Beijing student participants. Final amounts are not available at this time.

Fellows (Newcomb)
Newcomb indicated he hopes a new Chair is appointed soon.

Meetings Committee (Bezdek)
Rostov-On-Don: (Snyder/Kaplan)
Motion from Committee: Approve 3.3k of additional NNC money to close the books was approved. Kaplan submitted preliminary financial report (attachment #6). Eberhart asked Simpson to generate certificate of appreciation to General Chair.

Beijing IJCNN: (Eberhart) 600 participated inside China, 250 from outside. The exact financial situation is unknown, but is pretty close to breakeven. Eberhart asked Simpson to generate certificate of appreciation to General Chair.

ICNN/FUZZ-IEEE '93: Ruspini gave status report given (attachment #7)
Motion from Committee: 15k additional seed money be advanced to the
conference. Passed.

WWW Meeting: No report. The Council is a technical co-sponsor of the
meeting.

Nagoya '93: Discussion was deferred.

Inverse Forum: Motion by Marks, seconded by Tzanakou that NNC
sponsorship for this event be withdrawn. Passed.

SP Forums:

(Atlas) Denmark was venue of workshop sponsored by Signal Processing.
The next one is September 7-9 in Baltimore (attachment #8). AdCom noted
conflict with Singapore workshop. Eberhart noted that IEEE Technical
Committee referred to in announcement (attachment 8) should be changed
to denote that the workshop is sponsored by SP. Marks noted that a call
for papers for the Singapore workshop would appear in the January '93
Transactions. Eberhart noted that he felt Singapore had lived up to its
agreement.

VR '93 Conference:

Motion from Committee to approve the budget in Baltimore AdCom Book,
pp. 52-55. Numbers are reproduced, roughly, in attachment #9 submitted
by Kaplan. Motion approved.

Motion from Committee: Approve \$50k additional seed money. Amendment:
Garcia moved, Marks seconded: Change to \$35k with the stipulation that
the NNC President can release an additional \$15k at his discretion.
Amendment passed. Amendment: Wunsch, Alan Second: Organizing Committee
for VRAIS must submit to the NNC an analysis of how the projected
attendance at the conference is estimated. After discussion, the
amendment was withdrawn. Original motion was passed with Simpson the
sole negative vote.

VR Workshop (Fukuda):

Robot Human Communications Workshop (Romann) will be held in 1993.
Motion: Newcomb, El-Sharkawi, that NNC approve Technical Cosponsorship
of conference. Motion was withdrawn.
Motion: Marks El-Sharkawi: Approval of both WWW and Robot Human
Communications Workshop (Romann) be delegated to Meetings Committee.
Approved.

WCCI '94: Marks & Robinson, Co-Chairs

Motion from Committee:

1. Approach Jacek Zurada to be General Chair of '94 World Congress. If
Zurada declines, Marks will Chair in interim.
 2. Robinson and Marks will serve as Co-Chairs.
 3. An additional 10k seed money is approved.
- Motion approved

Bezdek gave brief reports on other meetings.

PUBLICATIONS CHAIR (Kartalopoulos)

Dr. Kartalopoulos gave a review of Publications Committee proceedings (attachment #10)

Motion from Committee:

IEEE Transactions on Neural Networks Editor be given \$14k for discretionary costs in running the Transactions, and that IEEE Transactions on Fuzzy Systems Transactions Editor be given \$8k for discretionary costs in running his Transactions. Motion Passed. Marks abstained.

CoNNECTIONS Newsletter:

New logo has been submitted.

Motion from Committee: Any conference in which the NNC has financial involvement would be charged a reduced rate.

Ammendment: Marks, Wunsch: Any conference in which the NNC has SOLE financial involvement would be charged a reduced rate.

Ammendment Failed.

Motion to Refer to Committee (Marks, Alan). Passed.

Break declared by President Eberhart at 3:42.

Reconvened at 3:50 PM

The matter of the review of the Kosko book by Simpson has been appealed to the Publications Board. Phyllis Hall has ruled that the review not be published (see p.73 of the green book). A new procedure for such matters has been initiated to handle such matters.

Motion by Garcia, Tzanakou:

Council directs Chair to pursue appeal Hall's decision in accordance to the new procedures. (Simpson left the room at this point) Motion Passed. (Simpson recalled)

STANDARDS (Karplus)

Karplus gave his report on items on p. 110 of the green book. Moved from committee: The budget of the NNC Standards Committee for calendar year 1992 is recognized to be \$12,500. The budget for 1993 is modified to be \$14,000. Motion Passed.

President Eberhart discussed formation of an NNC Technical Committee on Virtual Reality. Tom Caudell has been appointed Chair. He has invited Presidents of the Council's member societies to appoint members of this committee.

Motion: (Eberhart, Alan) \$3k be allotted for this Committee.

Motion Passed.

NOMINATIONS COMMITTEE

Marks said, if there is an AdCom meeting at VRAIS in Seattle, elections for the 1994 officers will be held there.

Eberhart requested input for volunteers to serve on Council committees.

CD Conference Proceedings (Eberhart)

The NNC was the first IEEE Society/Council to publish its Proceedings on CD ROM. Helen Wood has been appointed as the point person in IEEE to head CD ROM publications.

President Eberhart formed the AdHoc Committee on CD ROMS.
Wah, Garcia & Wunsch, Garcia Chair will head an AdHoc committee to place conference records on CD ROMS. Charter: Help Enrique to get the Proceeding of FUZZ-IEEE/ICNN Proceedings on CD-ROM. Put Rostov & Beijing on CD-ROM also. Marks asked that costing be also addressed.

AdHoc Committee on Council Structure
Deferred.

AdHoc Committee on additional publications (Brown)
Brown reviewed the report of his committee on p. 115 of green book.
Motion from (Publications) Committee:
Brown be appointed to head a committee with Kartalopolous, Wah, Simpson, and Fukuda to make recommendation on new publication.

Video Tutorials Chair (El-Sharkari)
El-Sharkawi discussed the report in attachment #11. The fuzzy logic ad tape is in attachment #12. The NN Pioneer Series ad is in attachment #13. Preliminary sales figures are in attachment #14. Nagle told of new ventures efforts, including a new book series.

Recommendations on Council Structure:
Garcia discussed the proposed changes (attachment #15).
Marks: Will send Constitution to o.garcia@ieee.org and Eberhart.

Eberhart recognized Troy Nagle as new President Elect of IEEE.
Appropriate applause occurred.

Rick Alan

Reported on a number of RIGs.

Motion (Alan, Simpson): That the AdHoc Committee on RIGS (Regional Interest Groups) be promoted to a Standing Committee of the Council.

Passed

Eberhart tasked Alan to bring a RIG budget to the March '93 meeting.
Alan tasked to submit a charter for the RIG's committee.

Nagle reported on new ventures creation of three new book series. The project is joint between IEEE TAB & IEEE Press.

A dinner break was declared by President Eberhart at 5:42 pm. Meeting was reconvened at 7:12 pm.

Nagoya Discussion (Fukuda):

1500 Nagoya IJCNN Posters have been distributed. The deadline for proposals for the three-hour tutorials is January 6. A \$350 registration fee is planned. Eberhart will write a letter to Fukuda appointing him steering committee chair with a copy to Perry Sensi.

Robinson expressed his apology to the Council for stepping down as Congress Chair, and asked it be entered into the record. Marks noted that Dr. Robinson had been elected as Division X Director, and that his service to IEEE continued at a high level. Eberhart led congratulatory applause. (Robinson later agreed to do the job.)

Robinson elaborated on the proposed constitutional change (attachment#15). He requested input from the Council. These will be

voted on in March.

Motion: (Robinson, Wunsch) that Marks, Bezdek & Snyder reappointed as Editors for 1993.

PASSED

A straw vote was taken concerning whether Editors should be (a) appointed for a two year term, renewable twice, (b) a two year term, renewable once, or (c) serves at the discretion of the President. The (b) proposition won, but by a mixed vote.

COUNCIL NAME CHANGE

Eberhart reported that our proposed name change was not approved by TAB.

Motion: Newcomb, Wunsch: No further official actions be taken at this point for a name change.

MOTION: Passed by a mixed vote.

Atlas moved, Newcomb seconded: That the Singapore NNASP '93 ad be removed from CoNNECTIONS Newsletter, Vol. 2, vol.4, and be replaced by the 1993 Baltimore IEEE-SP Workshop call for papers.

Amendment: Technical corrections will be made to both ads and we will find a way to run both ads.

Moved: (Robinson, Garcia) Limit debate to people who have been recognized by the Chair. PASSED

QUESTION ON THE AMMENDMENT CALLED WITH OBJECTION: PASSED

Ammendment: Defeated

(Debate limited to two responses, each, in AdCom)

Discussion:

Robinson suggested SP, for its next meeting, solicit co-sponsorship of the NN-SP meeting.

QUESTION CALLED

Original Motion (Atlas/Newcomb) DEFEATED. Atlas' vote recorded as aye.

Robinson was delegated to make a decision together with Snyder. He must be contacted by noon on Monday. There will no changes to the ad that is currently scheduled.

Robinson commented that a NN conference on Signal Processing should be cleared by SP, with extension to other Societies. Conversely, SP should approach the Council on sponsorship with financial involvement of their Society.

Historian Report: Marks will illucidate in a manner befitting an illuminary his ruminations on matters historical at the next meeting.

Eberhart announced Tanakou has been selected Woman Engineer of the Year. Spontaneous Applause!!

NEXT MEETING:

ICNN/FUZZ-IEEE San Francisco, Hilton Hotel
Saturday, March 27, 1993

Meeting was adjourned at 9:54 PM by President Eberhart.

Announcements

#



#2

ARIZONA BILTMORE

Russ:

I hereby give
my proxy vote to
Troy Nagle who I
understand will be
present at your
Neural Network AdCom
or Council.

Jim Han
12/3/92

24th Street and Missouri, Phoenix, Arizona 85016, (602) 955-6600
FOR TOLL FREE ROOM RESERVATIONS CALL (800) 950-0086



12/4/92

ARIZONA BILTMORE

I hereby grant proxies
(two) for voting purposes
to Pat Simpson for the
Neural Networks Council.

These proxies expire
as of 12/31/92.

If Dick Trueblood attends
the NNC meetings, then
we shall have one of
these proxies.

Glen W. Libman
Steve Skelton
President, American
Engineering Society

24th Street and Missouri, Phoenix, Arizona 85016, (602) 955-6600
FOR TOLL FREE ROOM RESERVATIONS CALL (800) 950-0086

Be it resolved that TAB endorses the USAB decision to include the following clarification statement in all present and future technology policy statements generated within USAB and in all future ~~testimonies~~ testimonies to be presented before government bodies:

This statement was developed by the [name of USAB entity] of the United States Activity Board of the Institute of Electrical and Electronics Engineers, Inc. (IEEE), and represents the considered judgement of a group of U.S. IEEE members with expertise in the subject field. The IEEE United States Activities Board promotes the career and technology policy i n t e r e s t s o f t h e [int(#/10000)x10000] electrical, electronics, and computer engineers who are U.S. members of the IEEE.

December 4, 1992

6.22 APPEAL OF EDITORIAL DECISIONS

Where disputes arise in the course of the review or publishing process, that cannot be resolved at the sponsoring-entity level, an appointee of the Vice President of Publishing shall act as mediator and attempt to resolve the dispute. Within thirty days of receipt of a written complaint, the mediator shall consult with all the parties to the dispute and facilitate communication and discussion among them. If the mediator shall not be able to resolve the problem within 60 days from the receipt of the complaint, the mediator shall refer the matter to the Publications Board, together with any recommendations, for further action.

MOTION:

That TAB endorse the proposed new IEEE Policy Statement 6.22 - Appeal of Editorial Decisions as amended to include a phrase stating that a mediator is needed only when the dispute cannot be solved at the sponsoring entity level for recommendation of approval by the IEEE Board of Directors.

4

MOTION:

TAB endorse for recommendation by the IEEE Board of Directors proposed changes to Section 10 for meetings in which IEEE is a Technical Co-Sponsor or Cooperating entity, IEEE members will be entitled to register, participate in related activities and purchase products at the same cost as charged to members of the sponsoring organization.

MOTION:

TAB endorse for recommendation of approval by the Board of Directors proposed changes to Section 10 of the IEEE Policy and Procedures Manual that for meetings that are Technically Co-Sponsored by an IEEE entity, the conference will make available, at cost, copies of their conference records (proceedings) to IEEE for post conference sale. The quantity of records to be acquired will be specified by IEEE. The post meeting publication sale may be waived by the President of the IEEE Society/Council that is the Technical Co-Sponsor of the conference.

MOTION:

TAB endorse for recommendation of approval by the Board of Directors proposed changes to Section 10 of the IEEE Policy and Procedure Manual that for meetings that are Technically Co-Sponsored by an IEEE entity, the conference will make available, three (3) copies of their conference records (proceedings) to IEEE to have on file.

#5



IEEE THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

DIVISION IV: ELECTROMAGNETICS AND RADIATION

DIRECTOR
Martin V. Schneider

December 1, 1992

PLEASE REPLY TO:
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TO: Technical Activities Board
FROM: Martin V. Schneider
Chairman, TAB New Technology Directions Committee
SUBJECT: 1992 Activities and Accomplishments of TAB New Technology
Directions Committee (NTDC)

I. 1992 MEETINGS

| | | Attendees |
|------------|--|------------------|
| April 28 | Hilton at Peachtree Corners, Atlanta, GA | 12 |
| June 26 | IEEE, Piscataway, NJ | 12 |
| July 30 | John Ascuaga's Nugget, Sparks, NV | 12 |
| October 30 | IEEE, Piscataway, NJ | 18 |
| December 3 | Arizona Biltmore, Phoenix, AZ | - |

II. COMPLETION OF 1992 TAB OPERATING GOALS

- 2.1 Goal #8: Publish news summary of emerging technologies. Executive summaries on emerging technologies were received from twenty Societies. A document entitled *Portfolio of Emerging Technologies* was created from the summaries. An article describing this program will appear in the January 1993 issue of the *IEEE Spectrum*. In addition, seven grand challenges in electro-technology were identified.
- 2.2 Goal #9: Pursue coverage of new and emerging technologies.
 - 2.2.1 An ad hoc committee on *Environment, Health and Safety* was formed by Allen Cherin, Division III representative to NTDC. The committee, in cooperation and with partial financial support of the Atlanta Section, is working to promote topical conferences in these fields.
 - 2.2.2 An ad hoc committee on *Electric Energy* was started by Thomas Pinkham, Division VII representative to NTDC. Electric energy ranked first in a 1991 NTDC survey of problems needing technical solutions.

2.2.3 Ad hoc committees on *Flat Panel Displays* and *Materials in Electrotechnology* are being formed by Donald Bitzer (North Carolina State University) and Gregory Stone (Past President, Dielectrics and Electrical Insulation Society). The ad hoc committee on *Materials in Electrotechnology* will be chaired by Karsten Drangeid, Secretary IEEE and past Director Region 8.

III. APPOINTMENT OF CORRESPONDING MEMBERS TO NTDC

All the Society Presidents were invited to appoint a corresponding member to NTDC. Among the 33 appointees, 7 members were from Regions 7 to 10 as follows:

| | | |
|---------------------|---------------------------------|-------------------|
| Christine Specter | Social Implications of Techn. | Ottawa, Canada |
| Gregory Stone | Dielectrics & Elect. Insulation | Toronto, Canada |
| David Baez-Lopez | Solid-State Circuits | Puebla, Mexico |
| Paolo Tenti | Industry Applications | Padova, Italy |
| Martti Hallikainen | Geoscience & Remote Sensing | Helsinki, Finland |
| M. G. Chandrasekhar | Aerospace & Electr. Systems | Bangalore, India |
| Victor Huang | Industrial Electronics | Singapore |

IV. VIDEOTAPES ON EMERGING TECHNOLOGIES

- 4.1 A videotutorial on *Microwave Optoelectronics* was jointly produced with the IEEE Educational Activities Department. The lecturer was Alwyn Seeds from University College, London. The tape was favorably reviewed in a number of IEEE Magazines and Newsletters.
- 4.2 A videotape is being planned on the topic of *Wide Area Networks* with Robert Lucky as a speaker.

V. COOPERATIVE ACTIVITIES WITH IEEE STANDARDS BOARD

A joint project to facilitate the development of new standards was started with NosCom (New Opportunities in Standards Committee). The proposal calls for the creation of a series of documents called *IEC/IEEE Emerging Technical Practices and Procedures*, and it was unanimously approved by the Standards Board.

#6

1992 RNNS/IEEE Symposium on Neuroinformatics and Neurocomputing

Rostov-on-Don, Russia
 Oct 7- Oct 10, 1992

Preliminary Financial Report

Dec 1, 1992

Prepared by: Dmitry Kaplan
 (finance chair)

Expenses

| Category | Initial budget (based on 50 non-Former Soviet Union participants) | Actual amount and detail | We still owe |
|--|---|---|--------------|
| Transportation to/from airport on Moscow, guidance and food in Moscow | \$2,500 | \$600 We were charged \$30 each way for each of the ten foreigners that took advantage of this service The receipt for the \$300 of that was given to us by the DIANA agency, \$300 was acknowledged DB's* receipt. | \$0 |
| Airport transport in Rostov, service in airport | \$600 | \$204 based on 17 foreigners @ \$12 each The amount is due DB | \$204 |
| Secretarial | \$300 | \$300 Due Wes Snyder | \$300 |
| Symposium paraphernalia | \$500 | \$170 based on 17 foreigners @ \$10 each Full amount is covered on DB's receipt. | \$0 |
| Building and room rental | \$1,000 | \$340 based on 17 foreigners @ \$20 each Somehow we have managed to only pay \$330 of that to DB in Russia (acknowledgment appears on his receipt). We owe \$10 to him | \$10 |
| Equipment rental | \$300 | \$102 based on 17 foreigners @ \$6 each Due DB | \$102 |
| Ship rental | \$500 | \$170 based on 17 foreigners @ \$10 each Due DB | \$170 |
| Communication mail, phone, shipping, etc. | \$1,000 | \$623.35 \$236 -- shipping of proceedings from Greensboro to Moscow \$55 -- shipping from Moscow to Rostov (dmitry has been re-reimbursed in full) \$332.35 Wes Snyder's phone expenses | \$568.35 |
| Bus rental in Rostov | \$640 | \$217 based on 17 foreigners @ \$12.80 each This is due DB | \$217 |

* I will abbreviate Witali Dunin-Barkowski's name to DB. I am tired of typing it.

| | | | |
|-----------------------|--------------------|---|--------------------|
| Coffee and food | \$1,000 | \$340 based on 17 foreigners @ \$20 each Due DB | \$340 |
| Abstracts printing | \$3,000 | \$5,320.58 \$5200 was reimbursed to Dmitry \$120.58 is still due Wes Snyder | \$120.58 |
| Invited Speakers | \$7,500 | \$4,000 \$2,000 to Ito \$2,000 (est) to Robert Hecht-Nielsen | \$4,000 |
| Reserve | \$1,000 | \$0 Who are we kidding? | \$0 |
| Conference Travel | \$9,000 | \$6,602.32 \$2068.20 -- Dmitry (has been reimbursed in full) \$2232.20 (\$1974+\$258.20) -- Bob Marks (conference owes Bob \$109.20 and Dmitry owes Bob \$149.20) \$2301.92 -- Wes Snyder (entire amount is due) | \$2411.12 |
| Publicity expenses | \$1,800 | \$2,384.26 \$384.26 due to Wes Snyder call for papers \$2000 due Connections for two full-page ads | \$2384.26 |
| TOTAL EXPENSES | \$30,640.00 | \$21,373.51 | \$10,827.31 |

Income

| Category | Initial budget (based on 50 non-Former Soviet Union participants) | Actual amount and detail |
|--------------------------|---|-------------------------------|
| Seed money | \$0 | \$11,000 |
| Book Broker | \$0 | \$3,855.50 \$3855.50 check |
| Tentative NSF support | \$15,000 | \$0 |
| Registration | \$12,500 | \$3,285 |
| TOTAL INCOME | \$27,500 | \$18,140.50 |

Money in the bank: \$8,367

The conference lost \$21,373-\$18,1140 = \$3,233 NOT INCLUDING THE \$11,000 loan repayment.
 In the bank we now have \$8,367 and we owe \$10,827 with some of the checks not having come in.

Additional money needed to close accounts: \$3,300

FUZZ-IEEE'93 / ICNN'93 Status Report - December 1992

- **Venue**
 - Moved to San Francisco Hilton
 - Better conference rates
 - Some concern about exhibit space
 - Received compensation from Hyatt
- **Technical Program**
 - 526 submissions to ICNN
 - 350 submissions to FUZZ-IEEE'93
 - Expect PC decisions by 12/21/92
 - Tutorial Program Complete
 - Plenaries
 - 7 out of 8 slots filled
 - T. Kohonen replaces D. Rumelhart
 - Practitioner's Workshops
 - Technological Panels
- **Exhibits**
 - Promotion recently started
 - Selling ad space in program
 - Possible collab. EE Design
 - Will advertise "Exhibits Only" participation if feasible
- **Conference Records**
 - IEEE Publications (Paper)
 - Pre-conference discounted rates
 - CD ROM Program
 - Bids requested (3 options)
 - Limitation to 3500/4000 pages

FUZZ-IEEE/ICNN Status Report (cont.)

- **Conference Records (cont.)**
 - Video Proceedings
 - Limited submissions
 - Visual record of State of Art
 - Likely production at SRI with EAB assistance
- **Other organizational details**
 - Need to update ICNN status with IEEE
 - Volunteers: A. Worth
 - PR: Camerone Welch
 - Centralized Contact/Paper DB
- **Budget**
 - No substantial changes
 - Added \$7K student travel help
 - Established participation fees (\$225, \$325, \$395 IEEE; \$60, \$80, \$100 students)
 - Adjusted to reflect Hyatt problems
 - Video/CD ROM still unclear
 - Cash flow problems
- **Promotion**
 - Registration mailing complete
 - Better European coverage desirable
 - Will advertise on Electronic BBs
 - Additional advertisements being considered

#8

1993 IEEE Workshop on Neural Networks for Signal Processing

September 7-9, 1993 Baltimore, MD, USA

*Sponsored by the IEEE Technical Committee on Neural Networks
in cooperation with the IEEE Neural Networks Council*

Call for Papers

General Chairs

Gary Kuhn
Siemens Corporate Research
755 College Road East
Princeton, NJ 08540, USA
gmk@learning.siemens.com

Barbara Yoon
DARPA-MTO
3701 N. Fairfax Dr.
Arlington, VA 22203-1714, USA
byoon@a.darpa.mil

Program Chair

Rama Chellappa
Dept. of Electrical Engineering
University of Maryland
College Park, MD 20742, USA
chella@eng.umd.edu

Proceedings Chair

Candace Kamm
Box 1910
Bellcore, 445 South Street
Morristown, NJ 07962, USA
cak@bellcore.com

Finance Chair

Raymond Watrous
Siemens Corporate Research
755 College Road East
Princeton, NJ 08540, USA
watrous@learning.siemens.com

Program Committee

Joshua Alspecter
Les Atlas
Charles Bachmann
Gerard Chollet
Frank Fallside
Lee Giles
S.J. Hanson
Y.H. Hu
B.H. Juang
Shigeru Katagiri
S.Y. Kung
Yann LeCun
John Makhoul
B.S. Manjunath
Tomaso Poggio
Jose Principe
Ulrich Ramacher
Noboru Sonehara
Eduardo Sontag
J.A.A. Sorensen
Yoh'ichi Tohkura
Christoph von der Malsburg
Christian Wellekens

The third of a series of IEEE workshops on Neural Networks for Signal Processing will be held at the Maritime Institute of Technology and Graduate Studies, Linthicum, Maryland, USA, in September of 1993. Papers are solicited for, but not limited to, the following topics:

- Applications
Image processing and understanding, speech recognition, communications, sensor fusion, medical diagnoses, nonlinear adaptive filtering and other general signal processing and pattern recognition topics.
- Theory
Neural network system theory, identification and spectral estimation, and learning theory and algorithms.
- Implementation
Digital, analog, and hybrid technologies and system development.

Prospective authors are invited to submit 4 copies of extended summaries of no more than 6 pages. The top of the first page of the summary should include a title, authors' names, affiliations, address, telephone and fax numbers and email address if any. Camera-ready full papers of accepted proposals will be published in a hard-bound volume by IEEE and distributed at the workshop. Due to workshop facility constraints, attendance will be limited with priority given to those who submit written technical contributions. For further information, please contact Karin Cermele at the NNSP'93 Princeton office, (Tel.) +1 609 734 3383, (Fax) +1 609 734 6565, (e-mail) kic@learning.siemens.com.

Please send paper submissions to:
NNSP'93
Siemens Corporate Research
755 College Road East
Princeton, NJ 08540
USA

Schedule

Submission of extended summary: February 15
Notification of acceptance: April 19
Submission of photo-ready paper: June 1
Advanced registration, before: June 1

#9

VRAIS 93 Budget

Date: Dec 1, 1992
Prepared by: Dmitry Kaplan

| INCOME | Budget |
|---------------------|---------------------|
| Registration income | \$262,250 |
| Publications | \$13,650 |
| Exhibits | \$28,000 |
| Tutorials | \$89,000 |
| Advance | \$45,000 |
| TOTAL | \$437,900 OK |

| EXPENSES | Budget |
|-----------------|---------------------|
| Promotion | \$96,000 |
| Pubs | \$82,500 |
| Exhibits | \$16,500 |
| Social Funct | \$62,000 |
| Administration | \$65,200 |
| All other | \$54,400 |
| Advance Repay | \$45,000 |
| TOTAL | \$421,600 OK |

| BUDGET | Budget |
|-----------------------|-----------------|
| Surplus (LOSS) | \$16,300 |

Detailed Budget -- INCOME

| | | quantity | fee | budget |
|---------------------------|----------------|------------|--------------|------------------|
| Registration Fees | | | | |
| IEEE Members | | | | |
| | before 3/15/93 | 100 @ | \$250.00 = | \$25,000.00 |
| | before 6/15/93 | 100 @ | \$300.00 = | \$30,000.00 |
| | at conference | 200 @ | \$375.00 = | \$75,000.00 |
| Non-members | | | | |
| | before 3/15/93 | 75 @ | \$300.00 = | \$22,500.00 |
| | before 6/15/93 | 75 @ | \$350.00 = | \$26,250.00 |
| | at conference | 150 @ | \$425.00 = | \$63,750.00 |
| Students | | | | |
| | before 3/15/93 | 50 @ | \$80.00 = | \$4,000.00 |
| | before 6/15/93 | 50 @ | \$95.00 = | \$4,750.00 |
| | at conference | 100 @ | \$110.00 = | \$11,000.00 |
| Total registration | | 900 | | \$262,250 |
| Publication Sales | | | | |
| To IEEE Members | | 12 @ | \$75.00 = | \$900.00 |
| To non-members | | 12 @ | \$125.00 = | \$1,500.00 |
| To IEEE | | 450 @ | \$25.00 = | \$11,250.00 |
| Headquart | | | | |
| Total pubs: | | 474 | | \$13,650 |
| Exhibits | | | | |
| Booth/Publishers | | 5 @ | \$600.00 = | \$3,000.00 |
| Booth/All other | | 25 @ | \$1,000.00 = | \$25,000.00 |
| Total exhibits: | | 30 | | \$28,000 |
| All Others | | | | |
| Tutorial one | | 100 @ | \$200.00 = | \$20,000.00 |
| Tutorial two | | 100 @ | \$300.00 = | \$30,000.00 |
| Tutorial three | | 100 @ | \$390.00 = | \$39,000.00 |
| Total Tutorials | | 300 | | \$89,000 |
| Seed Money | | | | \$45,000 |
| TOTAL INCOME: | | | | \$437,900 |

Detailed Budget -- EXPENSES

| | Budget |
|-------------------------|------------------|
| Promotion | |
| Flyer prod | \$20,000 |
| Program Prod & pr | \$7,000 |
| Mailing lists | \$7,000 |
| Postage | \$28,000 |
| Mailing hs | \$7,000 |
| Advert | \$20,000 |
| Other/Souvenir | \$7,000 |
| Total Promotion | \$96,000 |
| Publications | |
| Proceedings print | \$64,500 |
| CDROM Pubs | \$15,000 |
| Comm w/ authors | \$3,000 |
| Total: | \$82,500 |
| Exhibits | |
| Signage | \$1,500 |
| Brochure | \$1,000 |
| Furniture | \$3,000 |
| Equipment Rental | \$10,000 |
| Communication | \$1,000 |
| Total | \$16,500 |
| Social Functions | |
| Dinner, Reception | \$62,000 |
| Total: | \$62,000 |
| Administration | |
| Insurance and bonding | \$100 |
| Security and guards | \$3,000 |
| A/V Rental | \$13,000 |
| Management fee | \$30,000 |
| Office equip rent | \$2,000 |
| Forms/tickets/sta | \$1,300 |
| Posters, signs, b | \$2,000 |
| Telephone, fax, c | \$1,200 |
| Registration clerical | \$12,000 |
| Registration supplies | \$600 |
| Total: | \$65,200 |
| All other | |
| Tutorial signage | \$2,000 |
| Tutorial Notebook | \$3,400 |
| Tutorial A/V | \$3,000 |
| Tutorial honorari | \$18,000 |
| Audit | \$4,000 |
| Invited Speakers | \$9,000 |
| Committee exp | \$5,000 |
| Chairman's Fund | \$10,000 |
| Total: | \$54,400 |
| Loan repayment | \$45,000 |
| Grand Total | \$421,600 |

Requests:

- 1) The budget to be re-approved and inserted into minutes of the meeting
- 2) The 25K remaining of the \$45 seed financing that was approved previously to be authorized and inserted into minutes
- 3) The following additional seed capital to be approved
(these figures were arrived at with the help of Nomi Feldman of Meeting Management Inc.):

| Category | Amount |
|---|----------------|
| Typesetting, printing and mailing of another brochure | \$ 25 K |
| Advertisement (2 full-page ads) | \$ 10 K |
| Marketing and printing promotional material for exhibits | \$ 1 K |
| Printing of programs, registration forms and mailing them | \$ 5.5 K |
| Printing of Conference poster | \$ 4 K |
| Misc. expenses fund | \$ 4.5 K |
| TOTAL: | \$ 50 K |

NNC PUBLICATIONS COMMITTEE

REPORT OF ACTIVITIES

Stamatios V Kartalopoulos, Chair
Westin Biltmore Hotel
Phoenix, AZ
12/6/92

1. NNC (CO)-SPONSORED BOOKS - PUBLISHED:

(as of end of 10/92)

- Bezdek: 1149 units sold for \$63,090.
- Lau: 1418 units sold for \$47,951.
- Sanchez/Lau: 1100 units sold for \$53,918.

Total Royalty for NNC: \$1531.00

2. NNC (CO)-SPONSORED BOOKS - IN REVIEW:

- Haykin(*): Neural Networks
- D. Fogel: Evolutionary Programming
- Gupta & Rao(+): Neuro-Control Systems
- Gupta & Knopf(+): Neuro-Vision Systems: Principles & Applications
- T. Caudell: Neural Networks

* : To be co-published with external Publisher (McMillan)

+ : Co-sponsored with other IEEE Society (?)

3. NNC (CO)-SPONSORED BOOKS - OTHER PROPOSALS:

- Gupta & Sinha: Intelligent Control
- Fukuda: IEEE Hybrid Systems (Neural Nets & Fuzzy Logic)

4. BOOK REVIEWERS - DATA BASE

- Neural Networks: in progress
- Fuzzy Logic: in progress
- Evolutionary Programming: started
- Genetic Algorithms: started
- Artificial Life: needs to start

5. BOOK REVIEWERS - STIPEND

- IEEE Press may award a stipend to book reviewers.

6. OTHER ACTIVITIES:

- Letter to Dr B. Kosko (re: book review) - deferred to PUB Board by NNC President.
- Attend PUB & IEEE Press meeting

7. NNC Transaction expenses (Recommendation)

| | TODAY | PROPOSED |
|---------------|--------|----------|
| o Trans. N.N. | \$10K+ | \$14K |
| o Trans FUZ. | \$5K? | \$5K |

8. Newsletter: New Look

#11

Video Tutorial Committee Report 3 December, 1992

Tapes being marketed:

- Pioneer Series
- Fuzzy Series

Promotion:

- direct mail to 8,000
- Conferences, such as FUZZ 92, Circuits and Systems, and Circuits and Devices Conference.

Sales:

- ³⁵⁸ 152 individual tapes (~~or about 25 sets~~) were sold on Fuzzy series. (~~\$400/series~~)
- NN tapes just finished. No sale report at this time

Plans for '93.

- Applications tapes *Pioneer Series*
- Self-study courses
- Virtual Reality
- Genetic Algorithms
- Evolution Algorithms

#12

New ... from IEEE's
Educational Activities Department

Learn From
Foremost Experts

Six video tutorials on one of today's
hottest topics

THE THEORY AND APPLICATIONS OF FUZZY LOGIC

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IEEE Member Price \$449.95 Nonmember Price \$649.95
Product Code: #HV0256-8 ISBN 0-7803-0331-8
6 VHS tapes, 12 hours
Hardcopy visuals are included with each tutorial and all are available in NTSC and PAL Standards.

1: INTRODUCTION TO FUZZY SET THEORY AND FUZZY LOGIC; BASIC CONCEPTS AND STRUCTURES

Enrique Ruspini, Artificial Intelligence Center, SRI International

From this course you will learn:

The basic concepts and structures of fuzzy logic for use in analysis, design, and development of complex control, signal processing and information systems

- To understand the rational bases of fuzzy logic
- About the relations between fuzzy logic and approximate reasoning methods

Product Number: HV0257-6 ISBN: 0-7803-0332-6

2: FUZZY LOGIC: ADVANCED CONCEPTS AND STRUCTURES

Lotfi Zadeh, EE Department, UC/Berkeley

From this course you will learn:

- The basic concepts underlying fuzzy logic, with emphasis on linguistic variable, canonical form, fuzzy if-then rules, and interpolative reasoning.
- How to use the calculus of fuzzy if-then rules as a method of design of systems which do not lend themselves to precise analysis.
- About the applications of fuzzy logic systems analysis, control, consumer products, and industrial systems.

Product Number: HV0258-4 ISBN: 0-7803-0333-4

3: INFORMATION PROCESSING WITH FUZZY LOGIC

Piero Bonissone, General Electric Company R & D

From this course you will learn:

- The distinction between probabilistic (Bayesian and Dempster-Shafer) and possibilistic (fuzzy) reasoning systems
- Critical issues in the development and deployment of approximate reasoning systems
- The basis for compiling rule based systems and fuzzy logic controllers

Product Number: HV0259-2 ISBN: 0-7803-0334-2

4: FUZZY LOGIC AND NEURAL NETWORKS FOR CONTROL SYSTEMS

Hamid R. Berenji, AI Research Branch, NASA Ames Research Center

From this course you will learn:

- Basic methods for design of fuzzy logic controllers
- How neural networks can assist in the process of developing fuzzy logic controllers
- To understand different successful applications of this methodology

Product Number: HV0260-0 ISBN: 0-7803-0335-0

5: FUZZY LOGIC AND NEURAL NETWORKS FOR PATTERN RECOGNITION

James C. Bezdek, Division of Computer Science University of West Florida

From this course you will learn:

- Basic data structures for fuzzy pattern recognition
- How fuzzy logic is used and impacts the solution of problems in numerical pattern recognition
- How fuzziness can be incorporated into computational neural-like architectures used in pattern recognition
- How computational neural networks can be used in fuzzy models for pattern recognition

Product Number: HV0261-8 ISBN: 0-7803-0336-9

6: Fuzzy Logic and Neural Networks for Computer Vision

James Keller, Electrical and Computer Engineering University of Missouri

From this course you will learn:

- How many of the classical operations in computer vision can be naturally cast into the framework of fuzzy set theory
- How resulting algorithms can enhance the overall quality of the results providing quantitative information
- To understand the interplay between fuzzy set theory and neural networks as they apply to computer vision problems

Product Number: HV0262-6 ISBN: 0-7803-0337-7

Why You Should See This Tutorial Series

It is critical for engineers and scientists in industry, government and academia to remain current in this rapidly emerging field. It is a must for anyone who is concerned with the design and development of computer vision, recognition and control systems.

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ADAPTIVE NEURAL NETWORKS**

*Presented by Bernard Widrow,
Professor of Electrical Engineering, Stanford University*

Bernard Widrow presents two tutorials in this program

Part 1. Adaptive Signal Processing

Adaptive filters have found many uses in today's technology. Generally constructed as transversal digital filters with weighting coefficients automatically adjusted to minimize mean square error, convergence and learning speed are predictable as well as understood. See how adaptive filters can be used in your applications. Adaptive filter applications in signal processing, telecommunications, control systems and acoustics will be addressed.

Part 2. Adaptive Neural Networks

This video describes the basic neural element and how such an element can be replicated and incorporated into a neural network capable of performing complex information processing. See how neural networks can be trained and can self-learn to recognize patterns, to recognize speech, to predict weather from pressure patterns and to perform complex control functions. You will see a video demonstration of a neural control system that has learned to steer a trailer truck while backing into a loading platform — a neural controller that has solved a highly nonlinear control problem.

This new technology will play an important role in the control of power systems, industrial plants, robotic systems, and many other practical applications.

From these tutorials you will learn:

- ✓ About learning systems, with applications in signal processing,
- ✓ About applications to neural networks used in pattern recognition and nonlinear control systems.

IEEE Member Price: \$76.46
Product Number: HV0322-8

List Price: \$109.65
ISBN: 0-7803-0357-1

1 VHS tape, 2 hours

**LEARNING, RECOGNITION, AND PREDICTION
BY SELF-ORGANIZING NEURAL NETWORKS**

Presented by Stephen Grossberg, Wang Professor of Cognitive and Neural Systems and Professor of Mathematics, Psychology, and Biomedical Engineering at Boston University.

See how to design algorithms for solving heretofore intractable problems in learning, pattern recognition, and nonstationary prediction. See how the computations used by the brain, particularly how people and animals learn to recognize and predict events, can be beneficial in many practical applications.

From this tutorial you will learn:

- ✓ How to design self-organizing algorithms for learning, pattern recognition, and nonstationary prediction.
- ✓ How an autonomous controller can conjointly minimize predictive error and maximize memory resources during on-line supervised learning.
- ✓ How cognitive and neurobiological data support the mechanisms used in the architectures.
- ✓ How to computationally instantiate brain concepts including categorization, attention, expectation, memory search, hypothesis testing, vigilance control, prototypes, and fast associative learning.

IEEE Member Price: \$76.46
Product Number: HV0323-6

List Price: \$109.65
ISBN: 0-7803-0356-3

1 VHS tape, 2 hours

**ADAPTIVE VECTOR QUANTIZATION
AND NEURAL NETWORKS**

Presented by Teuvo Kohonen, Professor of Computer and Information Science, Helsinki University of Technology

This video explains the principles and functioning of competitive learning algorithms such as the self-organizing map and learning vector quantization. See how to use them in applications including speech recognition. You will receive practical advice and instruction for implementation of these applications.

From this tutorial you will learn:

- ✓ How to use the essentials of classical vector quantization, the self-organizing maps, and learning vector quantization in your applications.
- ✓ To understand the topological relationships of data, and the clustering method, Sammons mapping.
- ✓ How to use these algorithms in a speech recognition system as demonstrated by a phonetic typewriter.

IEEE Member Price: \$76.46
Product Number: HV0272-5

List Price: \$109.65
ISBN: 0-7803-0349-0

1 VHS tape, 2 hours

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Product Number: HV0322-8

List Price: \$109.65
ISBN: 0-7803-0357-1

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Enrique Ruspiri, Artificial Intelligence Center, SRI International

From this course you will learn:

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- To understand the rational bases of fuzzy logic
- About the relations between fuzzy logic and approximate reasoning methods

Product Number: HV0257-6 ISBN: 0-7803-0332-6

2: FUZZY LOGIC: ADVANCED CONCEPTS AND STRUCTURES

Lotfi Zadeh, EE Department, UC/Berkeley

From this course you will learn:

- The basic concepts underlying fuzzy logic, with emphasis on linguistic variable, canonical form, fuzzy if-then rules, and interpolative reasoning.
- How to use the calculus of fuzzy if-then rules as a method of design of systems which do not lend themselves to precise analysis.
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Product Number: HV0258-4 ISBN: 0-7803-0333-4

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Piero Borissone, General Electric Company R & D

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- The distinction between probabilistic (Bayesian and Dempster-Shafer) and possibilistic (fuzzy) reasoning systems
- Critical issues in the development and deployment of approximate reasoning systems
- The basis for compiling rule based systems and fuzzy logic controllers

Product Number: HV0259-2 ISBN: 0-7803-0334-2

4: FUZZY LOGIC AND NEURAL NETWORKS FOR CONTROL SYSTEMS

Hamid R. Berenji, AI Research Branch, NASA Ames Research Center

From this course you will learn:

- Basic methods for design of fuzzy logic controllers
- How neural networks can assist in the process of developing fuzzy logic controllers
- To understand different successful applications of this methodology

Product Number: HV0260-0 ISBN: 0-7803-0335-0

5: FUZZY LOGIC AND NEURAL NETWORKS FOR PATTERN RECOGNITION

James C. Bezdek, Division of Computer Science, University of West Florida

From this course you will learn:

- Basic data structures for fuzzy pattern recognition
- How fuzzy logic is used and impacts the solution of problems in numerical pattern recognition
- How fuzziness can be incorporated into computational neural-like architectures used in pattern recognition
- How computational neural networks can be used in fuzzy models for pattern recognition

Product Number: HV0261-8 ISBN: 0-7803-0336-9

6: FUZZY LOGIC AND NEURAL NETWORKS for Computer Vision

James Keller, Electrical and Computer Engineering, University of Missouri

From this course you will learn:

- How many of the classical operations in computer vision can be naturally cast into the framework of fuzzy set theory
- How resulting algorithms can enhance the overall quality of the results providing quantitative information
- To understand the interplay between fuzzy set theory and neural networks as they apply to computer vision problems

Product Number: HV0262-6 ISBN: 0-7803-0337-7

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| 6. Fuzzy Logic & Neural Nets for Computer Vision | 56 | |
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066 P03

b3

DEC 03 '92 16:36

Attachment 2

#14

#15

THE IEEE COUNCIL ON NEURAL NETWORKS
PRESENT CONSTITUTION

ARTICLE III: MEMBERSHIP OF THE COUNCIL
Section 4. ~~The officers of the Council shall be as follows: President, Vice-President, Secretary, and Treasurer.~~

Section 5. Council business will be conducted by its AdCom which will include both voting and non-voting members. The voting members will be:
a. Two representatives to be appointed by each Member Society.
b. ~~The President, Vice-President, Secretary and Treasurer~~
c. ~~The most recent available immediate past President of the Council.~~

ARTICLE IV
ELECTION AND APPOINTMENT OF OFFICERS
Section 1. ~~Every year, the voting members of the Council AdCom shall elect a President, Vice-President, Secretary and Treasurer at the Annual Meeting. The officers shall serve for one year. No person shall be eligible to serve more than two consecutive one year terms for the same office.~~

Section 2. Officers shall be elected and appointed in accordance with the rules specified in the Council Bylaws.

Section 3. ~~If the Office of President becomes vacant, the Vice-President shall become President for the remainder of the term assumed. If the office of Vice-President, Secretary or Treasurer becomes vacant, the voting members of the Council AdCom shall elect a new officer promptly.~~

ARTICLE V
POWERS, PRIVILEGES, AND DUTIES
Section 3. The President shall appoint for a term concurrent with his presidency, [] the Editors of Council's Periodicals and the Chairpersons of the standing committees of the Council [] as specified in the bylaws on or before January 1st of the year in which he takes office as President. All appointments shall be made with the advice and consent of the Council AdCom. The [] Editor and Chairperson appointments need not be made from among the individuals who are on the Council AdCom as Society representatives.

PROPOSED CHANGES

ARTICLE III: MEMBERSHIP OF THE COUNCIL
Section 4. The Officers of the Council shall be the President, the immediate Past-President, the Executive Vice President, the Vice-President for Conferences, the Vice-President for Publications, and the Treasurer, all serving as the Council's Executive Committee, and all serving as ex officio, voting members of its AdCom (Administrative Committee).

Section 5b. The Officers of the Society.
[Drop Section 5c]

ARTICLE IV
ELECTION AND APPOINTMENT OF OFFICERS
Section 1. Every year, the voting members of the Council AdCom shall elect a President. On a schedule specified by the Bylaws, they shall also elect an Executive Vice President, a Vice-President for Conferences, a Vice-President for Publications, and a Treasurer. Eligibility and terms of office for the Officers of the Council are specified by the Bylaws.
Section 3. If the Office of President becomes vacant, the Executive Vice-President shall become President for the remainder of the term assumed. If the President is incapacitated, the duties of the President shall be performed by the Executive Vice-President for the duration of the President's incapacity, when the incapacity is certified by a majority of the Executive Committee. In the absence of the President, and under written and time-limited delegation from the President, the Executive Vice-President may also carry out the duties of the President. If the office of the Executive Vice-President, another Vice-President or the Treasurer becomes vacant, the voting members of the Council AdCom shall elect a new officer promptly. If the office of Immediate Past President becomes vacant, the President may appoint another Past President to that office.

ARTICLE V
POWERS, PRIVILEGES, AND DUTIES
Section 3. The President shall appoint for a term concurrent with his presidency, a Secretary to the AdCom, the Editors of Council's Periodicals, and the Chairpersons of the standing committees of the Council that are not chaired by an Officer, as specified in the bylaws on or before January 1st of the year in which he takes office as President. All appointments shall be made with the advice and consent of the Council AdCom. The Secretary, Editor and Chair appointments need not be made from among the individuals who are on the Council AdCom as Society representatives.

ARTICLE V (Con't)
POWERS, PRIVILEGES, AND DUTIES

Section 5. Standing committees may be established as needed. [] With the advice and consent of the Council AdCom, the President shall appoint committee officers (and members, if such action is not specifically delegated in the establishment action of the Council) and shall fill any [] vacancies that occur during the year.

Individuals appointed as committee officers or members shall serve a nominal term of one year but shall continue to serve until their successors are appointed or the committee is dissolved, except where other terms are specifically designated by the Constitution or Bylaws.

The President may appoint ad hoc committees for special assignments as needed.

~~Section 6. The Vice-President shall assist the President in fulfilling all assigned duties, and shall assume the duties and have the power, privileges, and responsibilities of the President during the latter's absence or incapacity.~~

Section 7. The Secretary shall be responsible for all reports, petitions and records concerning the Council, keeping true and faithful minutes of all meetings of the Council AdCom, and shall prepare such reports as may be required by the Council, the IEEE Technical Activities Board, or the IEEE Executive Committee. The Secretary shall send out notices when instructed to do so by the President or in accordance with requirements of the Council Constitution or Bylaws. Copies of all meeting notices, minutes of meetings, and letter or bulletins sent and received during the previous two years shall be kept by the Secretary, except for those specifically assigned to the custody of others, and the Secretary shall send current copies to IEEE Headquarters for archival storage.

~~In the absence or incapacity of the President and Vice-President, the Secretary shall perform the duties of the President and have all Presidential powers, privileges, and responsibilities during the absence or incapacity of the President and Vice-President.~~

ARTICLE V (Con't)
POWERS, PRIVILEGES, AND DUTIES

Section 5. Standing committees may be established as needed. The Bylaws may assign specific Officers to be the Chairs of specific standing committees. With the advice and consent of the Council AdCom, the President shall appoint chairs (and members, if such action is not specifically delegated in the establishment action of the Council) of the other committees of the Council and shall fill any committee vacancies that occur during the year. [Continue with last two paragraphs of old V.5]

Section 6. The duties of the Officers other than the President and Treasurer shall be as follows:

a. The Executive Vice-President shall assist the President in fulfilling all assigned duties, and shall oversee and be an ex-officio member of all the Committees of the Council except those chaired by other Officers.

b. The Vice-President for Conferences, with the participation of the Meetings Committee, shall provide direction for the conference activities of the Council, including but not limited to overseeing, coordinating, and monitoring the annual conferences of the Council and all conferences co-sponsored by the Council.

c. The Vice-President for Publications shall provide direction for the publications activities of the Council. This officer shall consider, with the participation of the Publications Committee, the publication needs of the Council and shall propose to AdCom the creation, cancellation, expansion, or contraction of Council publications. This officer shall be informed by the editor of each Council-sponsored publication, policy matters such as the designation and development of special issues, recommendation for a change in the number of published pages, and the appointment of Associate Editors.

d. The Immediate Past-President shall provide direction for the transnational and inter-society liaison activities of the Council.

Section 7 [Keep first paragraph, delete second one]

ARTICLE VII: COUNCIL MEETINGS

Section 3. One-third of the voting members of the Council AdCom, which must include representatives from at least one-third of the Member Societies, shall constitute a quorum. Written proxies will not be accepted in determining the quorum. ~~The Chairperson of the Publications Committee, and the Chairperson of the Meetings Committee, the Secretary, and the Treasurer shall be ex-officio members of the Council with a vote on all matters except election of officers and changes to the Constitution and Bylaws. If the offices of Secretary and Treasurer are combined, there shall be one vote by the officer.~~

ARTICLE VII: COUNCIL MEETINGS

Section 3. One-third of the voting members of the Council AdCom, which must include representatives from at least one-third of the Member Societies, shall constitute a quorum. Written proxies will not be accepted in determining the quorum. The Secretary shall be an ex-officio member of the Council without vote, unless the Secretary also has the right to vote as a Society representative or Council Officer.

BYLAWS

ARTICLE III :NOMINATIONS, ELECTIONS, AND APPOINTMENTS

Section 1. The Nominating Committee, which is a Standing Committee of the Council, shall consist of a Chairperson and three other members. At least one shall not be a current Council member but shall belong to at least one Member Society. ~~The officers of the Council may not serve on the Nominating Committee nor be members ex-officio.~~

Section 2 to Section 6 remain as is.

Section 1. The Nominating Committee, which is a Standing Committee of the Council, shall consist of a Chairperson and three other members. At least one shall not be a current Council member but shall belong to at least one Member Society. The Immediate Past President shall be the Chair of the Nominating Committee.

Section 7 [new]. The AdCom shall elect the Executive Vice President, the Vice-President for Conferences, the Vice-President for Publications, and the Treasurer from its current members or among those past members who have served as elected AdCom members within the previous three years and the President from its current members or among those past members who have served as elected Officers members within the previous four years. If a candidate for President cannot be found who meets this criteria, then candidates for President may be chosen from the current members of AdCom or among those past members who have served as elected AdCom members within the previous three years.

Section 8 [New] The terms of office for the Officers of the Council, and their eligibility for reelection shall be:

the President (1 year term, renewable once), the immediate Past-President, the Executive Vice President (2 year term, non-renewable), the Vice-President for Conferences (2 year term, non-renewable), the Vice-President for Publications (2 year term, non-renewable), and the Treasurer (2 year term, renewable). Eligibility for a particular office shall be restored after a lapse from that office of one year. The Executive Vice President and the Vice-President for Conferences will be elected to begin their terms in even numbered years while the Vice-President for Publications and the Treasurer will be elected to begin their terms in odd numbered years.

Section 7. [becomes Section 10]. If any Council office becomes vacant at any time during the year, and if the vacant office cannot be filled by logical succession of an existing Council officer as described in the Constitution and Bylaws, the Council will promptly hold an election to fill the existing vacancy. As needed, elections shall be held separately for the offices of President, [] Vice-President [] in that order. To be elected, a nominee must receive a majority of the proper votes cast. If no candidate receives a majority on a ballot, the name of the candidate receiving the smallest vote shall be withdrawn and a second ballot taken. This procedure shall be repeated until one candidate receives a majority vote.

[Section 8 becomes Section 10]

ARTICLE IV: STANDING COMMITTEES

Section 1. The Standing Committees shall include the following: Meetings Committee, Publications Committee, Nominating Committee, ~~Constitution and Bylaws Committee, []~~ Standards Committee, Fellows Committee

Section 4. The organization of each Conference or Technical Meeting sponsored by the Council shall include a Steering Committee and a Program Committee whose Chairperson shall be appointed by the President upon the recommendation of the Meetings Committee and with the advice and consent of the Council AdCom. The individual members of the respective committees should be appointed by the above officials. The Meetings Committee, with approval of the Council, may plan, organize and sponsor other activities held in conjunction with Conferences of other societies. []

Section 5. The Publications Committee [] shall establish publication policy subject to annual review by the Council. It shall assist the appropriate Editors of Council Periodicals in the choice of special topics and in guiding and planning all Publications.

Editors may designate associate editors, special guest editors, and manuscript reviewers, doing so in accordance with general IEEE statements of Policy.

Editorial expenses must be in accordance with an annual budget approved by the Council. Editors may authorize publication expenses, but shall be responsible for adherence to the publication budget.

Section 9 [new]. The AdCom at its Annual Meeting in odd numbered years shall elect the President, the Executive Vice President, and Vice-President for Conferences, and in even numbered years shall elect the President, the Vice-President for Publications and the Treasurer for terms beginning on the succeeding January 1.

Section 10 [old 7]. If any Council office becomes vacant at any time during the year, and if the vacant office cannot be filled by logical succession of an existing Council officer as described in the Constitution and Bylaws, the Council will promptly hold an election to fill the existing vacancy. As needed, elections shall be held separately for the offices of President, Executive Vice President, Vice-President for Conferences, Vice President for Publications and Treasurer, in that order. [continue with rest]

[new Section 11 = old Section 8]

ARTICLE IV: STANDING COMMITTEES

Section 1. The Standing Committees shall include the following: Meetings Committee, Publications Committee, Nominating Committee, Finance Committee, Standards Committee, Fellows Committee

Section 4 [add at end] ... The Meetings Committee shall be chaired by the Vice President for Conferences.

Section 5. The Publications Committee be composed of the Vice President for Publications (as Chair), the Editors of all the publications of the Council (as ex officio, voting members), and at least 4 additional members who are or have been members of the Council's Administrative Committee. This Committee shall establish publication policy subject to annual review by the Council. It shall assist the appropriate Editors of Council Periodicals in the choice of special topics and in guiding and planning all Publications.

Editors may designate associate editors, special guest editors, and manuscript reviewers, doing so in accordance with general IEEE statements of Policy.

Editorial expenses must be in accordance with an annual budget approved by the Council. Editors may authorize publication expenses, but shall be responsible for adherence to the publication budget.

Section 6. The Nominating Committee shall be appointed by the President of the Council in accordance with the provisions of the Constitution and Article III, Section 1, of these Bylaws. It shall have the duties described in Article III, Sections 1, 2, 3, 4, of these Bylaws. The Chairperson of the Nominating Committee shall be the [] Past President of the Council.

Section 6. The Nominating Committee shall be appointed by the President of the Council in accordance with the provisions of the Constitution and Article III, Section 1, of these Bylaws. It shall have the duties described in Article III, Sections 1, 2, 3, 4, of these Bylaws. The Chairperson of the Nominating Committee shall be the Immediate Past President of the Council.

~~Section 7. The Secretary of the Council shall serve as the Chairperson of the Constitution and Bylaws Committee. Additional members may be appointed by the President upon request of the Council's AdCom.~~

[Delete old Section 7]

Section 7 [new]. The Finance Committee shall assist the Treasurer in developing Council budgets, reviewing long-range fiscal planning, and suggesting new sources for income. The Finance Committee shall be Chaired by the Treasurer.

~~The functions of the Constitution and Bylaws Committee will be to:~~

- ~~a. Maintain up to date copies of the Constitution and Bylaws and make them available upon request.~~
- ~~b. Ascertain that the Constitution and Bylaws are not in conflict with any requirements or rules of IEEE Headquarters.~~
- ~~c. Recommend changes in the Constitution or Bylaws as necessary to conform to the development of the Council or to changes by IEEE Headquarters.~~
- ~~d. The Chairperson of the Constitution and Bylaws Committee shall serve as Parliamentarian and Consultant on Procedural matters at meetings of the Council AdCom.~~

SUMMARY OF ACTIONS
Technical Activities Board
December 4, 1992

The following actions were taken during the Technical Activities Board meeting held December 4, 1992 at the Arizona Biltmore, Phoenix, Arizona.

1. Elected Frederick T. Andrews as Chairman of the TAB Products Council for the term 1993-94.
2. Elected Lewis M. Terman as Chairman of the TAB Technical Meetings Council for the term 1993-94.
3. Appointed Harold L. Flescher, President of the IEEE Nuclear and Plasma Sciences Society, Gerald F. Harris, President of the Engineering in Medicine and Biology Society, T.J. (Tzyn-Jong) Tarn, President of the Robotics and Automation Society, Glen N. Williams, President of the Oceanic Engineering Society, and Thomas G. Wilson, President of the Power Electronics Society, as Society President Representatives to the TAB Administration Council for the term 1993, with Mr. Flescher and Dr. Harris also serving as members of the TAB Finance Committee for the term 1993.
4. The 1993 memberships of the TAB Technical Meetings, Periodicals, and Products Councils were announced.
5. Endorsed for recommendation of approval by the IEEE Executive Committee modifications to the IEEE Industry Applications Society's Field of Interest.
6. Approved the 1993 TAB Strategic and Operating plan consisting of seven (7) objectives and fifteen (15) goals.
7. Endorsed for recommendation of approval by the IEEE Board of Directors modifications to IEEE Policy Statement 10.18 governing recruitment at conventions and expositions.
8. Approved a modification to the Voting Members section of the TAB Finance Committee Charter to increase Members-at-Large to four (4) from two (2) with two-year staggered terms.
9. Endorsed the 1993 Society/Council budgets.
10. Approved supporting the 1992 TAB/USAB Technology Policy Conference in an amount equal to \$10k or 50% of the net expense, whichever is less.
11. As requested by the TAB Ad Hoc Committee on Affiliates, endorsed for recommendation of approval by the IEEE Board of Directors modifications to IEEE Bylaw 502, governing changes in the Society Affiliate fee.

TAB Summary of Actions
Page 2

12. Endorsed for recommendation of approval by the IEEE Board of Directors modifications to IEEE Bylaw 314, allowing for the nomination of a single Division-Director-Elect candidate and petition candidates for that position.
13. Approved the formation of a TAB Ad Hoc Committee on IEEE/Popov Society Joint Satellite Video Conferences to explore the development of joint two-way, real-time video workshops and/or conferences.
14. Assigned Intersocietal Committees charged with the publication of Journals or Magazines to the TAB Periodicals Council for oversight responsibility, as specified in the Council's Charter.
15. Approved the following Societies as members of the IEEE Neural Networks Council:
 - o IEEE Computer Society
 - o IEEE Power Engineering Society
 - o IEEE Society on Social Implications of Technology
16. Approved a proposal that beginning in 1994, half-year Society memberships and subscription fees shall be rounded upward to the next dollar.
17. As requested by the RAB/TAB Transnational Committee, approved a proposal that staff investigate methods to use mail boxes and delivery services to expedite overseas delivery of publications to IEEE members in Latin America.
18. Accepted the report on Society/Council Presidents' Involvement in the TAB Budgeting Process, which outlines a plan for the Society/Council Presidents to become actively involved in TAB budgeting, with the five Society Representatives to the TAB Administration Council acting as interfaces.
19. As requested by the IEEE Publications Board, endorsed for recommendation of approval by the IEEE Board of Directors new IEEE Policy 6.22 - Appeal of Editorial Decisions as amended to include a phrase stating that a mediator is needed only when the dispute cannot be resolved at the sponsoring entity level.

TAB Summary of Actions
Page 3

20. As requested by the TAB/USAB Ad Hoc Committee, approved a recommendation to include a clarification statement in all present and future technology policy statements generated within USAB and in all future testimonies to be presented before government bodies, outlining that the statement was developed by USAB and represents the judgement of a group of U.S. IEEE members with expertise in the subject field.
21. As requested by the TAB/USAB Ad Hoc Committee, approved the formation of a TAB/USAB Ad Hoc Committee on Technology Policy Development to refine current policies and procedures that USAB uses to develop technology policy statements and to gain Society/Council support.
22. As requested by the IEEE Student Activities Committee (SAC), approved a request to encourage Society/Council Presidents to (1) identify the Society's volunteer responsible for Student Activities, (2) forward information regarding current Student Activities to the TAB Representative to IEEE SAC, and (3) work with IEEE SAC to develop a Society Promotion Package.
23. Due to the concern over the content of the 1993 membership brochure, approved a recommendation that the IEEE Board of Directors take the necessary action to ensure that IEEE publishes a fully descriptive "Membership Information" brochure, as published in 1992.
24. Accepted the reports of the TAB Society Review Committee on the review of the following Division II entities:
 - o IEEE Industry Applications Society (IAS)
 - o IEEE Instrumentation and Measurement Society (IMS)
25. Approved the establishment of the following awards:
 - o IEEE Circuits and Systems Society IEEE Transactions on Circuits and Systems for Video Technology Best Paper Award
 - o IEEE Control Systems Society Student Best Paper Award
 - o IEEE Control Systems Society Outstanding Chapter Award
 - o IEEE Microwave Theory and Techniques Society Distinguished Educator Award
 - o IEEE Microwave Theory and Techniques Society N. Walter Cox Service Award

TAB Summary of Actions
Page 4

- o **IEEE Solid-State Circuits Council ISSCC Evening Session Award**
 - o **IEEE Information Theory Society Claude E. Shannon Lecture Award**
- 26. Approved revisions to the following awards:**
- o **IEEE Consumer Electronics Society Chester Sall Award**
 - o **IEEE Electron Devices Society J.J. Ebers Award**
 - o **IEEE Electron Devices Society Paul Rappaport Award**
 - o **IEEE Power Electronics Society William E. Newell Award**
 - o **IEEE Systems, Man, and Cybernetics Society Franklin V. Taylor Memorial Award**
 - o **IEEE Richard M. Emberson Award**
- 27. By acclamation, approved a resolution recognizing the exemplary contributions made by Fernando Aldana during his two years as IEEE Vice President of Technical Activities and Chairman of the Technical Activities Board.**

These are Minutes from NNC-EXCOM telephone meeting

Feb 5, 1993.

Russ Eberhart
PAT Simpson
Bob Marks
Roy Nutter

...rsn

Expenditures that have not yet been honored.

1. Travel to ADCOM Phoenix
Approved but not yet received from attendees ~\$5000 \$5,000

[These should be honored when presented...rsn]

[Russ will put on the agenda for San Fran.]

2. World Congress

| | | |
|--|----------|---------|
| Travel by Meeting management | \$796.75 | \$796 |
| Travel by others to Orlando re:World Cong | ~\$3000 | ~\$3000 |
| Additional \$10,000 of seed money approved | \$10,000 | |

(This conf does NOT have a budget yet !...rsn)

[Loxi Marinam. to be Treasurer. Needs to get in a budget.]
[Charge ORlando meeting by reducing seed money.]

3. VRAIS

| | | |
|---|----------|----------|
| Additional \$25k approved @ Phoenix ADCOM | \$25,000 | \$25,000 |
|---|----------|----------|

[Send it]

4. Rostov-On-Don: (Snyder/Kaplan)

| | | |
|--|---------|--------|
| Approved 3.3k of additional NNC money to close the books. Approved. | \$3,300 | #3,300 |
|--|---------|--------|

[Pay it.]

5. ICNN/FUZZ-IEEE

| | | |
|------------------------------------|----------|--|
| Approved 15k additional seed money | \$15,000 | |
|------------------------------------|----------|--|

| | | |
|------------------------------|--|----------|
| [Send \$12,000. for CDROM.] | | \$12,000 |
|------------------------------|--|----------|

6. VR[AIS] Conference

Approve \$50k additional seed.
Change to 35k. \$35,000
President can release additional 15k \$15,000

[This includes the #3 above

| | | | |
|------------------------|--------------------|--|----------|
| [Baltimore = \$20,000. |] | | |
| [Phoenix = \$25,000 | send it.] | | \$25,000 |
| [Need = \$20,000 | instead of 35,000] | | \$20,000 |

7. Transactions on Neural Networks
Editor be given 14k \$14,000

[Bob will try to itemize this and tell us in San Fran.]

8. Transactions on Fuzzy Systems
Editor by given 8k \$8,000

[Bob will get Bezdek to present at San Fran.]

9. Standards Committee
Budget 1993 is modified to be \$14,000. \$1,500

[This is on agenda for San-Fran]

10. CD Conference Proceedings
Need for CD-ROM of ICNN/Fuzzy-93 \$37,500
(This does not have ADCOM approval.)

[This is merged into the FUZZ-93/ICNN budget.]

| | |
|-----------|----------|
| ===== | ===== |
| \$173,096 | \$94,000 |

[Therefore, \$94,000 expenditures agreed to on 2/5/93.]

SUMMARY OF ACTIONS
Technical Activities Board
February 28, 1993

The following actions were taken during the Technical Activities Board meeting held February 28, 1993 at the Sheraton Chicago & Towers, Chicago, Illinois.

1. As requested by the TAB Periodicals Council, approved a new IEEE Signal Processing Letters to be published by the IEEE Signal Processing Society subject to approval by the TAB Finance Committee and the IEEE Publications Board.
2. As requested by the TAB Periodicals Council, approved 1994 Transactions/Journals page rates.
3. As requested by the TAB Periodicals Council, approved 1994 Magazine and Newsletter Rates.
4. As requested by the TAB Periodicals Council, endorsed a proposal to allow the IEEE Engineering in Medicine and Biology Society to enter into a Sister Society relationship with RESNA and offer IEEE Transactions on Rehabilitation Engineering at a Sister Society rate to RESNA members subject to approval by the IEEE Publications Board.
5. Endorsed for recommendation of approval by the IEEE Executive Committee a proposal to change the name of the IEEE Components, Hybrids and Manufacturing Technology Society (CHMT) to the IEEE Components, Packaging and Manufacturing Technology Society (CPMT).
6. As requested by the TAB Periodicals Council, endorsed for recommendation of approval by the IEEE Board of Directors modifications to IEEE Policy 6.14B(1) concerning copyright protection of Newsletters.
7. Approved the IEEE Parallel & Distributed Technology Magazine as an Interdisciplinary publication for 1993.
8. Approved the 1993 TAB Strategic and Operating Plan consisting of seven (7) objectives and seventeen (17) goals.
9. Endorsed for recommendation of approval by the IEEE Board of Directors modifications to IEEE Bylaws 401 and 403 governing current requirements for the formation of a geographic Council.
10. Endorsed for recommendation of approval by the IEEE Board of Directors the recommendations of the IEEE Task Force on Life Members Services which outlines proposed criteria for Life Membership and cost implications.

February 1, 1993

Dr. M. Dayne Aldridge
Center for Technology Management
Tiger Drive, Room 104
Auburn University, AL 36849-5358

Dear Society President:

As you are probably aware, the field generally known as "virtual reality" (VR) is experiencing rapid growth. The IEEE Neural Networks Council (NNC) has several VR-related activities. For example, a conference called the Virtual Reality Annual International Symposium (VRAIS) has been established by the NNC. In 1993, VRAIS will be held in Seattle, Washington, in September. In 1994, we plan to hold VRAIS in North Carolina. The NNC Standards Committee has established a VR subcommittee.

In order to provide insight on how the NNC (and the IEEE) can best serve its constituents working on or interested in VR, the NNC Virtual Reality Technology Committee has been established. I have appointed Dr. Thomas Caudell of Boeing Computer Services, Seattle, Washington, as Chairman.

I am requesting that you, as President of an IEEE Society that is a member of the NNC, appoint a person to represent your society on the committee for 1993 and 1994. Much of the committee work will be done by email and teleconference. It is anticipated that the committee will meet in person approximately twice per year.

The NNC has provided seed funding for committee administrative activities. It is requested that your Society support the travel expenses of your representative to the twice-yearly meetings.

Please let me know who you are appointing by March 1, 1993, if possible. Also, please let me know if you don't wish to appoint anyone at this time, or if you cannot appoint someone by March 1. The VR Technology Committee will meet in person for the first time during the International Conference on Neural Networks in San Francisco, March 28-31, 1993.

I look forward to hearing from you.

Very truly yours,

Russell C. Eberhart, President
IEEE Neural Networks Council

1992-93 Neural Network Transactions
12/ 1/91 Through 3/ 9/93

NNC-92-All Accounts
3/ 9/93

| Date | Acct | Num | Description | Memo | Category | Clr | Amount |
|------------------------|---------|-----|-----------------|------------|---------------|-----|------------|
| <u>fuzzy-92</u> | | | | | | | |
| 1/31/92 | fuzzy-9 | | Opening Balance | | [fuzzy-92] | | -30,000.00 |
| 6/ 2/92 | fuzzy-9 | | NNC | Repay advn | FUZZ-IEEE-92 | | 40,000.00 |
| 12/23/92 | fuzzy-9 | | NNC from FUZZ-9 | Final clos | FUZZ-IEEE-92 | | 79,783.89 |
| Total fuzzy-92 | | | | | | | 89,783.89 |
| <u>fuzzy-93</u> | | | | | | | |
| 2/11/92 | fuzzy-9 | | Advance to Conf | For printi | FUZZ-IEEE-93 | | -10,000.00 |
| 7/20/92 | fuzzy-9 | | FUZZ-IEEE-93 | Advance ap | FUZZ-IEEE-93 | | -50,000.00 |
| 2/ 3/93 | fuzzy-9 | | Advance #3 | Approved @ | FUZZ-IEEE-93 | | -12,000.00 |
| Total fuzzy-93 | | | | | | | -72,000.00 |
| <u>IJCNN-91-Seattl</u> | | | | | | | |
| 12/15/91 | IJCNN-9 | | Opening Balance | | [IJCNN-91-Sea | | 0.00 |
| 2/ 4/92 | IJCNN-9 | | NNC | Preliminar | IJCNN-Seattle | | 55,000.00 |
| 6/ 4/92 | IJCNN-9 | | NNC | Final Dist | IJCNN-Seattle | | 10,148.32 |
| 12/16/92 | IJCNN-9 | | NNC | No Audit C | IJCNN-Seattle | | 2,583.33 |
| Total IJCNN-91-Seattl | | | | | | | 67,711.65 |
| <u>IJCNN-91-Singap</u> | | | | | | | |
| 12/15/91 | IJCNN-9 | | Opening Balance | | [IJCNN-91-Sin | | 0.00 |
| 12/31/91 | IJCNN-9 | | IJCNN-91 Singap | Advance | IJCNN-Sing-91 | | -20,000.00 |
| 7/20/92 | IJCNN-9 | | IEEE | Service Ch | IJCNN-Sing-91 | | -7,285.65 |
| Total IJCNN-91-Singap | | | | | | | -27,285.65 |
| <u>IJCNN-92-Baltim</u> | | | | | | | |
| 12/31/91 | IJCNN-9 | | Opening Balance | Advance | [IJCNN-92-Bal | | -50,000.00 |
| 9/30/92 | IJCNN-9 | | Return of Seed | | IJCNN-92-Balt | | 50,000.00 |
| 2/23/93 | IJCNN-9 | | NNC | Surplus fo | IJCNN-92-Balt | | -7,759.09 |
| 2/23/93 | IJCNN-9 | | Baltimore Secti | 10% of NNC | IJCNN-92-Balt | | 77,590.90 |
| Total IJCNN-92-Baltim | | | | | | | 69,831.81 |
| <u>IJCNN-92-Beijin</u> | | | | | | | |
| 12/ 5/92 | IJCNN-9 | | Opening Balance | | [IJCNN-92-Bei | | 0.00 |
| 12/ 5/92 | IJCNN-9 | | Income | | Registration | | 2,888.00 |
| Total IJCNN-92-Beijin | | | | | | | 2,888.00 |
| <u>NNC Cash Assets</u> | | | | | | | |

NNC-92-All Accounts
3/ 9/93

| Date | Acct | Num | Description | Memo | Category | Clr | Amount |
|----------|---------|-----|-----------------------|------------|----------------|-----|------------|
| 12/31/91 | NNC Cas | | Opening Balance | | [NNC Cash] Ass | | 253,450.00 |
| | | | Total NNC Cash Assets | | | | 253,450.00 |
| | | | NNC Treasury 92 | | | | |
| 12/31/91 | NNC Tre | | Opening Balance | | | | 0.00 |
| 1/13/92 | NNC Tre | | Robert Marks | Secretaria | ADCOM | | -5,905.00 |
| 1/13/92 | NNC Tre | | Robert Marks | Travel IRE | ADCOM/travel | | -757.23 |
| 1/21/92 | NNC Tre | | Robert Marks | Expenses f | Trans on NN/t | | -216.33 |
| 1/21/92 | NNC Tre | | Roy Nutter | Travel ExC | ADCOM/travel | | -652.20 |
| 1/21/92 | NNC Tre | | Bernard Widrow | Pioneer Aw | awards/travel | | -551.85 |
| 1/21/92 | NNC Tre | | Stephan Grossbo | Pioneer Aw | awards/travel | | -1,510.63 |
| 1/28/92 | NNC Tre | | Pat Simpson | Excom Meet | ADCOM/travel | | -549.93 |
| 2/ 4/92 | NNC Tre | | Russ Eberhart | TAB Financ | President/tra | | -376.66 |
| 2/ 5/92 | NNC Tre | | Elsevier Scienc | Half Page | Newsletter/ad | | 600.00 |
| 2/ 5/92 | NNC Tre | | Rose-Hulman Ins | Half Pg Ad | Newsletter/ad | | 600.00 |
| 2/ 5/92 | NNC Tre | | Franklin Spier 1 | Half Pg Ad | Newsletter/ad | | 510.00 |
| 2/ 6/92 | NNC Tre | | Russ Eberhart | Phone Call | President/tel | | -137.21 |
| 2/11/92 | NNC Tre | | Russ Eberhart | Travel + I | President/tra | | -3,932.95 |
| 2/18/92 | NNC Tre | | Pat Simpson | telephone | Vice Presiden | | -172.18 |
| 2/18/92 | NNC Tre | | Charlie Robinson | Travel to | ADCOM/travel | | -700.00 |
| 2/18/92 | NNC Tre | | Russ Eberhart | Travel Adv | President/tra | | -1,200.00 |
| 2/21/92 | NNC Tre | | Robert Marks | Telephone | President/tel | | -316.00 |
| 2/27/92 | NNC Tre | | Pat Simpson | Telephone | Vice Presiden | | -79.00 |
| 3/ 3/92 | NNC Tre | | Francesca Eberh | Adcom supp | ADCOM Secreta | | -204.29 |
| 3/ 3/92 | NNC Tre | | Robert Marks | Travel Jan | ADCOM/travel | | -838.47 |
| 3/ 4/92 | NNC Tre | | Francesca Eberh | Prep ADCOM | ADCOM Secreta | | -623.33 |
| 3/ 5/92 | NNC Tre | | Robert Marks | Travel Adv | President/tra | | -500.00 |
| 3/12/92 | NNC Tre | | Francesca Eberha | Pres'e Sec | President | | -131.36 |
| 3/12/92 | NNC Tre | | Dandina H Rao | Student Tr | ADCOM | | -1,314.00 |
| 3/12/92 | NNC Tre | | Choon-Seng Yee | Student Tr | ADCOM | | -160.00 |
| 3/12/92 | NNC Tre | | Andrew J Worth | Student Tr | ADCOM | | -1,026.00 |
| 3/13/92 | NNC Tre | | Pat Simpson | e-mail cha | Vice Presiden | | -21.96 |
| 3/13/92 | NNC Tre | | Roy Nutter | Travel to | ADCOM | | -642.69 |
| 3/18/92 | NNC Tre | | Charles J Robin | Travel to | ADCOM | | -529.57 |
| 3/18/92 | NNC Tre | | Robert W Newcom | Travel to | ADCOM | | -620.72 |
| 3/18/92 | NNC Tre | | Stamatios V Kar | Travel to | ADCOM | | -813.91 |
| 3/24/92 | NNC Tre | | Connie Lynn Mar | Sec 8/1-12 | Trans on NN | | -3,333.33 |
| 3/24/92 | NNC Tre | | Robert J Marks | Copy Machi | Trans on NN | | -1,832.90 |
| 3/24/92 | NNC Tre | | Connie Lynn Mar | Sec 1/1-3/ | Trans on NN | | -2,500.00 |
| 3/31/92 | NNC Tre | | Robert J Marks | Travel to | ADCOM | | -632.57 |
| 4/ 3/92 | NNC Tre | | Wesley Snyder | Travel to | ADCOM | | -1,653.81 |
| 4/ 3/92 | NNC Tre | | NNC | Adv in Con | Newsletter | | 1,600.00 |
| 4/ 7/92 | NNC Tre | | Walter Karplus | Travel to | Standards | | -260.43 |
| 4/ 7/92 | NNC Tre | | Walter Karplus | Travel to | Standards | | -1,316.17 |
| 4/ 7/92 | NNC Tre | | Walter Karplus | Travel to | ADCOM | | -1,346.17 |
| 4/20/92 | NNC Tre | | James C Bezdek | Travel to | ADCOM | | -428.00 |
| 5/ 4/92 | NNC Tre | | Transfer of Fun | Stationary | fees | | -50.00 |
| 5/11/92 | NNC Tre | | Robert J. Marks | Travel to | ADCOM | | -649.70 |
| 5/11/92 | NNC Tre | | Rosalyn Snyder | Edit/Types | Newsletter | | -2,876.70 |
| 5/19/92 | NNC Tre | | NNC | Adv West P | Newsletter | | 325.00 |

NNC-92-All Accounts
3/ 9/93

| Date | Acct. | Num | Description | Memo | Category | Clr | Amount |
|----------|-------|-----|-----------------|------------|---------------|-----|-----------|
| 6/ 2/92 | NNC | Tre | Pat Simpson | e-mail and | Vice Presiden | | 70.17 |
| 6/ 2/92 | NNC | Tre | Rob Marks | Advance fo | ADCOM | | -500.00 |
| 6/ 2/92 | NNC | Tre | H Troy Nagle | Travel to | ADCOM | | -682.34 |
| 6/ 2/92 | NNC | Tre | Robert J Marks | Misc:Pad/s | Trans on NN | | -122.36 |
| 6/ 4/92 | NNC | Tre | Russ Eberhart | RIG talk, | President | | -822.99 |
| 6/ 4/92 | NNC | Tre | Russ Eberhart | TAB Meetin | President. | | -1,200.00 |
| 6/ 4/92 | NNC | Tre | IEEE Headquarte | Editorial | ADCOM | | -100.00 |
| 6/ 5/92 | NNC | Tre | Walter Karplus | Travel/ Au | Standards | | -1,370.33 |
| 6/ 8/92 | NNC | Tre | Rosalyn Snyder | Editing an | Newsletter | | -2,860.42 |
| 6/17/92 | NNC | Tre | Francesca Eberh | April and | ADCOM Secreta | | -308.75 |
| 6/17/92 | NNC | Tre | Russ Eberhart | Travel to | President | | -287.65 |
| 6/17/92 | NNC | Tre | Patrick K Simp | Phone Char | Vice Presiden | | -74.89 |
| 6/17/92 | NNC | Tre | Bradley Dickins | Awards Eng | awards | | -77.20 |
| 6/18/92 | NNC | Tre | James Bezdok | Travel to | ADCOM | | -505.47 |
| 6/22/92 | NNC | Tre | MA El Sharkawi | Travel to | ADCOM | | -828.03 |
| 6/22/92 | NNC | Tre | MA El Sharkawi | Travel to | ADCOM | | -828.03 |
| 6/22/92 | NNC | Tre | Charles Robins | Travel to | ADCOM | | -490.44 |
| 6/23/92 | NNC | Tre | Robert Marks | Travel to | ADCOM | | -1,130.86 |
| 6/23/92 | NNC | Tre | IEEE From Rober | Reim Adv B | ADCOM | | 500.00 |
| 6/23/92 | NNC | Tre | Bradley Dickins | Travel Bal | ADCOM | | -575.67 |
| 6/23/92 | NNC | Tre | Roy Nutter | Travel Bal | ADCOM | | -522.69 |
| 6/25/92 | NNC | Tre | Walter Karplus | Travel to | ADCOM | | -915.78 |
| 6/25/92 | NNC | Tre | Walter Karplus | Travel to | Standards | | -1,487.79 |
| 6/30/92 | NNC | Tre | Russ Eberhart | Travel to | ADCOM | | -800.66 |
| 6/30/92 | NNC | Tre | Pat Simpson | Phone char | Vice Presiden | | -53.85 |
| 7/ 6/92 | NNC | Tre | IEEE Headquarte | editorial | Trans on NN | | -50.00 |
| 7/13/92 | NNC | Tre | Pat Simpson | Travel to | ADCOM | | -1,554.64 |
| 7/13/92 | NNC | Tre | Stamatis Karta | Travel to | ADCOM | | -817.20 |
| 7/14/92 | NNC | Tre | IJCNN-92 | hotel expe | ADCOM | | -1,120.00 |
| 7/20/92 | NNC | Tre | Shun-ichi Amari | Travel for | awards | | -3,475.00 |
| 7/22/92 | NNC | Tre | Francesca Eberh | Secretaria | ADCOM Secreta | | -274.68 |
| 7/22/92 | NNC | Tre | Mary Lou Padget | travel to | ADCOM | | -983.57 |
| 7/22/92 | NNC | Tre | IEEE Service Ce | certificat | awards | | -9.00 |
| 7/22/92 | NNC | Tre | Evangelin Tzava | travel to | ADCOM | | -1,322.82 |
| 8/ 4/92 | NNC | Tre | IEEE Society Se | Stationary | ADCOM | | -25.00 |
| 8/18/92 | NNC | Tre | Connie Lynn Mar | Historical | Trans on NN | | -5,633.33 |
| 8/18/92 | NNC | Tre | Robert J Marks | Phone + | Trans on NN | | -118.01 |
| 8/18/92 | NNC | Tre | Pat Simpson | Phone and | Vice Presiden | | -79.91 |
| 8/18/92 | NNC | Tre | H. Troy Nagle | travel | ADCOM | | -210.48 |
| 8/18/92 | NNC | Tre | Wesley Snyder | travel to | ADCOM | | -285.47 |
| 8/18/92 | NNC | Tre | Donald Brown | travel to | ADCOM | | -180.95 |
| 8/18/92 | NNC | Tre | Rosalyn Snyder | travel to | ADCOM | | -329.57 |
| 8/18/92 | NNC | Tre | Russell Eberhar | travel to | President | | -1,394.60 |
| 8/18/92 | NNC | Tre | IEEE NNC | ADCOM inco | ADCOM income | | 204.00 |
| 9/ 8/92 | NNC | Tre | Transfer to Hua | "Society S | ADCOM | | -50.00 |
| 9/18/92 | NNC | Tre | Connie Lynn Mar | Secretaria | Trans on NN | | -833.33 |
| 9/18/92 | NNC | Tre | Rick Alun | Distinguis | RIGs | | -603.22 |
| 9/22/92 | NNC | Tre | Rosalyn Snyder | Sept 1992 | Newsletter | | -2,760.72 |
| 9/30/92 | NNC | Tre | Walter Karplus | IEEE stds | Standards | | -1,358.83 |
| 9/30/92 | NNC | Tre | Robert Marks | Phone expe | Trans on NN | | -73.06 |
| 9/30/92 | NNC | Tre | Walter Freeman | Travel for | awards | | -1,168.33 |
| 10/ 5/92 | NNC | Tre | IEEE Society SE | Bill from | Trans on NN | | -25.00 |

1992-93 Neural Network Transactions

12/ 1/91 Through 3/ 8/93

NNC-92-All Accounts

3/ 9/93

| Date | Acct | Num | Description | Memo | Category | Clr | Amount |
|-----------------------|---------|-----|-----------------|------------|---------------|-----|------------|
| 10/ 8/92 | NNC Tre | | Travel for Robe | Beijing Ex | ADCOM | | -2,250.00 |
| 10/ 8/92 | NNC Tre | | Phone for Rober | Trans NN T | Trans on NN | | -107.33 |
| 11/17/92 | NNC Tre | | Travel Advance | | ADCOM | | -1,500.00 |
| 12/ 7/92 | NNC Tre | | Russel C. Eberh | Printing n | President | | -445.07 |
| 12/ 7/92 | NNC Tre | | Patrick J Simps | Computer & | Vice Presiden | | -153.68 |
| 12/16/92 | NNC Tre | | Peter Chm | Student Tr | ADCOM-Stud tr | | -1,000.00 |
| 12/16/92 | NNC Tre | | Heeyung Kwom | Student Tr | ADCOM-Stud tr | | 1,025.00 |
| 12/16/92 | NNC Tre | | Lance Wyse | Student Tr | ADCOM-Stud tr | | -500.00 |
| 12/16/92 | NNC Tre | | Robert Newcome | Travel to | ADCOM | | -706.36 |
| 12/16/92 | NNC Tre | | Rdgar Sanchez-S | Travel to | ADCOM | | -622.49 |
| 12/16/92 | NNC Tre | | Evangelia Trana | Travel to | ADCOM | | -1,170.72 |
| 12/21/92 | NNC Tre | | Stanatios V. Ka | Travel to | ADCOM | | -1,117.65 |
| 12/23/92 | NNC Tre | | Stanatios V. Ka | Travel to | ADCOM | | -1,117.65 |
| Total NNC Treasury 92 | | | | | | | -90,287.62 |

NNC Treasury 93

| | | | | | | | |
|-----------------------|---------|--|------------------|-------------|---------------|--|------------|
| 11/17/92 | NNC Tre | | Walter J. Karp | Travel to | Standards | | -600.10 |
| 12/21/92 | NNC Tre | | Wesly E. Snyder | Travel to | ADCOM | | -523.00 |
| 1/ 8/93 | NNC Tre | | M.A. Kl-Sharkaw | Travel to | ADCOM | | -686.58 |
| 1/ 8/93 | NNC Tre | | Patrick K. Simp | Travel to | ADCOM | | -485.92 |
| 1/ 8/93 | NNC Tre | | James C. Bezdek | Travel to | ADCOM | | -665.39 |
| 1/ 8/93 | NNC Tre | | Walter J. Karp | Travel to | ADCOM | | -630.00 |
| 1/ 8/93 | NNC Tre | | Walter J Karplu | Travel to | Standards | | -630.00 |
| 1/ 8/93 | NNC Tre | | Robert J Marks | Travel to | ADCOM | | -877.59 |
| 1/ 8/93 | NNC Tre | | Mary Lou Padget | Travel to | Standards | | -1,782.69 |
| 1/ 8/93 | NNC Tre | | Mary Lou Padget | Postage | Standards | | -154.31 |
| 1/ 8/93 | NNC Tre | | Walter J. Karp | Travel to | Standards | | -539.54 |
| 1/ 8/93 | NNC Tre | | Connie Lynn Mar | Sec work f | Trans on NN | | -2,500.00 |
| 1/ 7/83 | NNC Tre | | Rozalyn G. Snyd | Editing, ty | Newsletter | | -2,819.52 |
| 1/11/93 | NNC Tre | | Robert J Marks | Misc, cert | Trans on NN | | -359.30 |
| 1/15/93 | NNC Tre | | IEEE Video | Fuzzy Tuto | Video Tutoria | | -9,000.00 |
| 1/15/93 | NNC Tre | | IEEE Video | NN Pioneer | Video Tutoria | | -9,000.00 |
| 1/20/93 | NNC Tre | | Ping Liang | Debt. Resol | ADCOM | | -572.00 |
| 2/ 3/93 | NNC Tre | | Donald E. Brown | Travel to | ADCOM | | -748.38 |
| 2/ 3/93 | NNC Tre | | Robert J Marks | Travel to | ADCOM | | -1,875.94 |
| 2/23/93 | NNC Tre | | Patrick K Simps | Computer C | Vice Presiden | | 64.22 |
| 2/23/93 | NNC Tre | | Russell C Eberh | Beijing Co | President | | -185.95 |
| 2/23/93 | NNC Tre | | Russel C. Eberh | meals lodg | President | | -429.45 |
| 2/23/93 | NNC Tre | | Russell C. Eber | Travel to | President | | -732.90 |
| 2/23/93 | NNC Tre | | Russell C. Eber | Trav Orlan | President | | -702.90 |
| 2/23/93 | NNC Tre | | Russell C. Eberh | Travel to | President | | -916.84 |
| 2/23/93 | NNC Tre | | Russell C. Eber | Travel to | President | | -318.30 |
| 2/23/93 | NNC Tre | | Connie Lynn Mar | Trans Edit | Trans on NN | | -4,333.33 |
| Total NNC Treasury 93 | | | | | | | -42,395.51 |

Rostov-O-Don

| | | | | | | | |
|---------|---------|--|-----------------|--|---------------|--|-----------|
| 6/ 6/92 | Rostov- | | Opening Balance | | [Rostov-O-Don | | 10,000.00 |
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NNC-92-A11 Accounts
 3/ 9/93

| Date | Acct | Num | Description | Memo | Category | Clr | Amount |
|--------------------|---------|-----|-----------------|------------|-----------|-----|------------|
| Total Rostov-O-Don | | | | | | | -10,000.00 |
| VRAIS | | | | | | | |
| 6/17/92 | VRAIS | | Opening Balance | | [VRAIS] | | 0.00 |
| 7/17/92 | VRAIS | | Advance #1 | | [VRAIS] | | -20,000.00 |
| 2/ 3/93 | VRAIS | | Advance #2 | Approved P | [VRAIS] | | 25,000.00 |
| TOTAL VRAIS | | | | | | | -45,000.00 |
| WCCI-94 | | | | | | | |
| 1/20/93 | WCCI-94 | | Charles J Robin | Travel Pla | [WCCI-94] | | -1,274.31 |
| 1/20/93 | WCCI-94 | | John Trimble | Travel to | [WCCI-94] | | -688.26 |
| 1/20/93 | WCCI-94 | | Piero P Bonisso | Travel to | [WCCI-94] | | -555.54 |
| 1/20/93 | WCCI-94 | | Zbigniew Michal | Travel to | [WCCI-94] | | -460.83 |
| 1/20/93 | WCCI-94 | | Jacek M Zurnda | Travel to | [WCCI-94] | | -504.52 |
| 1/20/93 | WCCI-94 | | Steven K Rogers | Travel to | [WCCI-94] | | -446.00 |
| 2/23/93 | WCCI-94 | | Opening Balance | | [WCCI-94] | | 0.00 |
| 2/23/93 | WCCI-94 | | Charles J Robin | Travel to | [WCCI-94] | | -198.42 |
| 2/23/93 | WCCI-94 | | Robert J Marks | Travel to | [WCCI-94] | | -735.11 |
| TOTAL WCCI-94 | | | | | | | -4,863.09 |
| OVERALL TOTAL | | | | | | | 191,583.48 |

Currency: USD
Business Unit=0110 (Neural Networks)

| NAME | I N C O M E | | | E X P E N S E | | | N E T S U R P L U S (D E F I C I T) | | | |
|----------------------|------------------|---------------------|--------|------------------|---------------------|--------|---------------------------------------|---------------------|--------|----------|
| | ANNUAL BUDGET | Y E A R T O D A T E | | ANNUAL BUDGET | Y E A R T O D A T E | | ANNUAL BUDGET | Y E A R T O D A T E | | |
| | | BUDGET | ACTUAL | | BUDGET | ACTUAL | | BUDGET | ACTUAL | VARIANCE |
| INTEREST INCOME | 0.0 | 0.0 | 4.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.2 | 4.2 |
| PERIODICALS | 60.3 | 60.3 | 146.9 | 139.7 | 139.7 | 212.8 | -79.4 | -79.4 | -65.9 | 13.5 |
| NEWSLETTERS | 0.0 | 0.0 | 1.6 | 21.3 | 21.3 | 36.4 | -21.3 | -21.3 | -34.8 | -13.5 |
| NON PERIODICAL SALES | 0.0 | 0.0 | 1.2 | 0.0 | 0.0 | 12.1 | 0.0 | 0.0 | -10.9 | -10.9 |
| MEETINGS/CONFERENCES | 290.0 | 290.0 | 80.4 | 130.0 | 130.0 | 30.5 | 160.0 | 160.0 | 49.9 | -110.1 |
| ADMINISTRATION | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 12.1 | 0.0 | 0.0 | -12.1 | -12.1 |
| COMMITTEE/OTHER | 62.8 | 62.8 | 80.7 | 61.3 | 61.3 | 117.4 | 1.5 | 1.5 | -36.8 | -38.3 |
| TOTAL | 413.1 | 413.1 | 315.1 | 352.3 | 352.3 | 421.4 | 60.8 | 60.8 | -106.4 | -167.2 |

PRE-AUDIT
POST-CLOSING



FOR THE PERIOD ENDING December 31, 1992

Entity - S/C 30
 Business Unit - Neural Networks 0110
 Cost Center - Interest Income 00100

REPORT PROCESSED ON 22-FEB-93

| | ANNUAL BUDGET | Y.T.D. TOTALS | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|--|------------------|------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|
| 391000000 Interest Income - Short Term | | | | | | | | | | | | | | |
| A | 0.0 | 5.8 | 0.5 | 0.5 | 0.7 | 0.8 | 0.8 | 0.6 | 0.6 | 0.6 | 0.3 | 0.2 | 0.1 | 0.1 |
| 392000000 Interest Income - Mgmt Fee | | | | | | | | | | | | | | |
| A | 0.0 | (1.5) | (0.1) | (0.1) | (0.2) | (0.2) | (0.2) | (0.2) | (0.2) | (0.2) | (0.1) | 0.0 | 0.0 | 0.0 |
| ***** TOTAL REVENUE | | | | | | | | | | | | | | |
| A | 0.0 | 4.3 | 0.4 | 0.4 | 0.5 | 0.6 | 0.6 | 0.4 | 0.4 | 0.4 | 0.2 | 0.2 | 0.1 | 0.1 |
| ***** TOTAL NET | | | | | | | | | | | | | | |
| A | 0.0 | 4.3 | 0.4 | 0.4 | 0.5 | 0.6 | 0.6 | 0.4 | 0.4 | 0.4 | 0.2 | 0.2 | 0.1 | 0.1 |

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IEEE FINANCIAL STATEMENTS

FOR THE PERIOD ENDING December 31, 1992

Entity - S/C 30
 Business Unit - Neural Networks 0110
 Cost Center - Trans On Neural Networks 00400

REPORT PROCESSED ON 22-FEB-93

| | ANNUAL BUDGET | Y.T.D. TOTALS | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|--|------------------|------------------|------|------|------|------|------|------|------|------|-------|------|------|------|
| 3018000000 S/C Fees Hard Copy | | | | | | | | | | | | | | |
| A | 0.0 | 21.7 | 14.6 | 2.8 | 1.8 | 1.2 | 0.6 | 0.5 | 0.2 | 0.1 | (0.1) | 0.0 | 0.0 | 0.0 |
| 3018100000 S/C Fees Micro Fiche | | | | | | | | | | | | | | |
| A | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 3101000000 Advertising - External Ads | | | | | | | | | | | | | | |
| A | 0.0 | 3.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 3102000000 Advertising - Internal Ads | | | | | | | | | | | | | | |
| A | 0.0 | 2.0 | 0.0 | 1.7 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 3202000000 Subscriptions - Non-Member Individual | | | | | | | | | | | | | | |
| A | 0.0 | 44.7 | 30.2 | 3.4 | 4.3 | 2.1 | 0.8 | 1.0 | 0.9 | 0.8 | 1.2 | 0.0 | 0.0 | 0.0 |
| B | 19.0 | 19.0 | 9.5 | 1.7 | 2.8 | 2.6 | 0.6 | 0.5 | 0.6 | 0.4 | 0.3 | 0.0 | 0.0 | 0.0 |
| 3205000000 Subscriptions - Non-Member All Transactions | | | | | | | | | | | | | | |
| A | 0.0 | 51.6 | 0.0 | 35.0 | 12.7 | 0.0 | 0.0 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.2 |
| B | 41.3 | 41.3 | 19.7 | 0.0 | 16.8 | 0.0 | 4.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 3250000000 Airfreight Charges Billed to Subscribers | | | | | | | | | | | | | | |
| A | 0.0 | 1.4 | 0.8 | 0.1 | 0.1 | 0.2 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 3251000000 Airfreight Charges Billed to Members | | | | | | | | | | | | | | |
| A | 0.0 | 0.6 | 0.3 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 3310000000 Voluntary Page Charges | | | | | | | | | | | | | | |
| A | 0.0 | 21.5 | 0.8 | 0.0 | 0.0 | 0.0 | 3.2 | 0.0 | 5.4 | 2.5 | (1.1) | 0.8 | 5.8 | 4.1 |
| ***** TOTAL REVENUE | | | | | | | | | | | | | | |
| A | 0.0 | 146.7 | 46.8 | 43.1 | 19.0 | 3.6 | 4.7 | 3.5 | 6.5 | 6.6 | 0.0 | 0.8 | 5.8 | 6.3 |
| B | 60.3 | 60.3 | 29.2 | 1.7 | 19.6 | 2.6 | 5.3 | 0.5 | 0.6 | 0.4 | 0.3 | 0.0 | 0.0 | 0.1 |
| 4032009201 Salesmen Commissions Jan 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4032009203 Salesmen Commissions Mar 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4032009205 Salesmen Commissions May 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4201509201 2nd Class - Edit US Jan 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 1.3 | 0.0 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



FOR THE PERIOD ENDING December 31, 1992

Entity - S/C 30
 Business Unit - Neural Networks 0110
 Cost Center - Trans On Neural Networks 00400

REPORT PROCESSED ON 22-FEB-93

| | ANNUAL BUDGET | Y.T.D. TOTALS | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|--|---------------|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| 4201509207 2nd Class - Edit US Jul 1992 | A 0.0 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4201509209 2nd Class - Edit US Sep 1992 | A 0.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 |
| 4201509211 2nd Class - Edit US Nov 1992 | A 0.0 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 |
| 4202509201 2nd Class - Editorial - Non US Jan 1992 | A 0.0 | 4.0 | 0.0 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4202509207 2nd Class - Editorial - Non US Jul 1992 | A 0.0 | 2.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4202509209 2nd Class - Editorial - Non US Sep 1992 | A 0.0 | 4.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.8 | 0.0 | 0.0 |
| 4202509211 2nd Class - Editorial - Non US Nov 1992 | A 0.0 | 5.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.3 |
| 4205509201 Freight & Other Carriage Jan 1992 | A 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4205509207 Freight & Other Carriage Jul 1992 | A 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4205509209 Freight & Other Carriage Sep 1992 | A 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4205509211 Freight & Other Carriage Nov 1992 | A 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4206500000 Air Freight | A 0.0 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4206509201 Air Freight Jan 1992 | A 0.0 | 0.9 | 0.0 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4206509209 Air Freight Sep 1992 | A 0.0 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 |
| 4206509211 Air Freight Nov 1992 | A 0.0 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 |
| ***** Total Postage Expense | A | 24.9 | 0.0 | 6.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.3 | 0.0 | 5.8 | 0.0 | 8.6 |



IEEE FINANCIAL STATEMENTS

FOR THE PERIOD ENDING December 31, 1992

Entity - S/C 30
 Business Unit - Neural Networks 0110
 Cost Center - Trans On Neural Networks 00400

REPORT PROCESSED ON 22-FEB-93

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| | ANNUAL BUDGET | Y.T.D. TOTALS | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|--|---------------|---------------|------|-------|------|------|------|------|------|--------|------|------|------|------|
| 430100000 Pub Admin Charge | | | | | | | | | | | | | | |
| A | 0.0 | 5.0 | 0.0 | 0.0 | 1.5 | 0.0 | 0.9 | 0.0 | 0.6 | 0.0 | 1.0 | 0.0 | 1.0 | 0.0 |
| B | 2.8 | 2.8 | 0.0 | 0.7 | 0.6 | 0.0 | 0.0 | 0.4 | 0.4 | 0.0 | 0.0 | 0.3 | 0.4 | 0.0 |
| 451300000 Editor Fee | | | | | | | | | | | | | | |
| A | 0.0 | 3.3 | 0.0 | 0.0 | 0.0 | 3.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 451400000 Editorial Headquarters | | | | | | | | | | | | | | |
| B | 20.2 | 20.2 | 0.0 | 0.0 | 12.3 | 0.0 | 0.0 | 7.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 4514009201 Editorial Headquarters Jan 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 6.9 | 16.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | (9.7) | 0.0 | 0.0 | 0.0 | 0.0 |
| 4514009203 Editorial Headquarters Mar 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 7.5 | 0.0 | 0.0 | 18.2 | 0.0 | 0.0 | 0.0 | 0.0 | (10.7) | 0.0 | 0.0 | 0.0 | 0.0 |
| 4514009205 Editorial Headquarters May 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 7.6 | 0.0 | 0.0 | 0.0 | 0.0 | 18.4 | 0.0 | 0.0 | (10.8) | 0.0 | 0.0 | 0.0 | 0.0 |
| 4514009207 Editorial Headquarters Jul 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 4.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 11.3 | (6.6) | 0.0 | 0.0 | 0.0 | 0.0 |
| 4514009209 Editorial Headquarters Sep 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 8.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 8.4 | 0.0 | 0.0 | 0.0 |
| 4514009211 Editorial Headquarters Nov 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 8.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 8.5 | 0.0 |
| 451500000 Editorial Reimbursed Expense | | | | | | | | | | | | | | |
| A | 0.0 | 10.6 | 0.2 | 0.0 | 0.2 | 2.2 | 0.3 | 0.5 | 0.1 | 0.2 | 0.1 | 6.7 | 0.1 | 0.0 |
| B | 13.5 | 13.5 | 1.5 | 9.0 | 1.5 | 0.0 | 0.0 | 0.0 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4521509201 Composition - Edit Jan 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 9.7 | 7.0 | (7.0) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 9.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| B | 92.6 | 92.6 | 0.0 | 92.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4521509203 Composition - Edit Mar 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 10.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4521509205 Composition - Edit May 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 10.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4521509207 Composition - Edit Jul 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 6.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4521509209 Composition - Edit Sep 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 11.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 11.9 | 0.0 | 0.0 | 0.0 |



FOR THE PERIOD ENDING December 31, 1992

Entity - S/C 30
 Business Unit - Neural Networks 0110
 Cost Center - Trans On Neural Networks 00400

REPORT PROCESSED ON 22-FEB-93

| | ANNUAL BUDGET | Y.T.D. TOTALS | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|---|------------------|------------------|------|------|------|------|------|------|------|------|------|------|------|-------|
| 4521509211 Composition - Edit Nov 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 12.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 12.1 | 0.0 |
| 4530000000 Indexing | | | | | | | | | | | | | | |
| A | 0.0 | 2.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 |
| B | 1.2 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 |
| 4542000000 Microfiche | | | | | | | | | | | | | | |
| A | 0.0 | 0.8 | 0.2 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.2 |
| 4553009201 Text Paper Jan 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 5.2 | 0.0 | 5.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4553009207 Text Paper Jul 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 2.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4553009209 Text Paper Sep 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 4.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.8 | 0.0 | 0.0 |
| 4553009211 Text Paper Nov 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 4.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.9 |
| 4561009201 Camera Work-Prt Set Up Ed Jan 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 0.5 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4561009207 Camera Work-Prt Set Up Ed Jul 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4561009209 Camera Work-Prt Set Up Ed Sep 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 0.0 | 0.0 |
| 4561009211 Camera Work-Prt Set Up Ed Nov 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 |
| 4581009201 Press Work-Printing Jan 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 4.0 | 0.0 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4581009207 Press Work-Printing Jul 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 2.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4581009209 Press Work-Printing Sep 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 3.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 4.9 | 0.0 | (1.3) |
| 4581009211 Press Work-Printing Nov 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 4.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.3 |

FOR THE PERIOD ENDING December 31, 1992

Entity - S/C 30
 Business Unit - Neural Networks 0110
 Cost Center - Trans On Neural Networks 00400

REPORT PROCESSED ON 22-FEB-93

| | ANNUAL BUDGET | Y.T.D. TOTALS | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|---|------------------|------------------|------|-------|------|------|------|------|------|------|------|------|------|------|
| 4582009201 Binding-Prt Ed Jan 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 0.9 | 0.0 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4582009209 Binding-Prt Ed Sep 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.9 | 0.0 | 0.0 |
| 4582009211 Binding-Prt Ed Nov 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 |
| 4583009201 Mailing-Prt Ed Jan 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 0.6 | 0.0 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4583009207 Mailing-Prt Ed Jul 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4583009209 Mailing-Prt Ed Sep 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 |
| 4583009211 Mailing-Prt Ed Nov 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 |
| 4631009201 Label Preparation Jan 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 0.4 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4631009203 Label Preparation Mar 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 |
| 4631009205 Label Preparation May 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 0.9 | 0.5 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4631009207 Label Preparation Jul 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4631009211 Label Preparation Nov 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 |
| 4632000000 Subscription Handling Charge | | | | | | | | | | | | | | |
| A | 0.0 | 11.9 | 11.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 |
| B | 9.4 | 9.4 | 7.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 | 0.4 | 0.0 | 0.0 |
| 4641000000 Voluntary Page Chg Exp | | | | | | | | | | | | | | |
| A | 0.0 | 4.6 | 0.2 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | 1.1 | 0.5 | 0.0 | 0.2 | 1.2 | 0.8 |
| ***** TOTAL EXPENSE | | | | | | | | | | | | | | |
| A | 0.0 | 212.9 | 36.1 | 10.8 | 20.3 | 5.6 | 20.7 | 0.5 | 13.6 | 12.2 | 21.9 | 25.2 | 23.0 | 23.0 |
| B | 139.7 | 139.7 | 9.4 | 102.3 | 14.4 | 0.0 | 0.0 | 8.2 | 1.9 | 0.0 | 1.1 | 0.7 | 0.4 | 1.3 |



FOR THE PERIOD ENDING December 31, 1992

Entity - S/C 30
 Business Unit - Neural Networks 0110
 Cost Center - Newsletters 01500

REPORT PROCESSED ON 22-FEB-93

| | ANNUAL BUDGET | Y.T.D. TOTALS | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|--|------------------|------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| 310200000 Advertising - Internal Ads | | | | | | | | | | | | | | |
| A | 0.0 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ***** TOTAL REVENUE | | | | | | | | | | | | | | |
| A | 0.0 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4200509201 1st Class Postage Jan 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 2.9 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4201509201 2nd Class - Edit US Jan 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 0.7 | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4201509205 2nd Class - Edit US May 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4201509208 2nd Class - Edit US Aug 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 |
| 4201509210 2nd Class - Edit US Oct 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 |
| 4202509201 2nd Class - Editorial - Non US Jan 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 0.4 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4202509205 2nd Class - Editorial - Non US May 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 3.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 3.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4202509208 2nd Class - Editorial - Non US Aug 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 2.0 | 0.0 | 0.0 |
| 4202509210 2nd Class - Editorial - Non US Oct 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 4205009002 Express Carriers Feb 1990 | | | | | | | | | | | | | | |
| A | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4205500000 Freight & Other Carriage | | | | | | | | | | | | | | |
| A | 0.0 | 0.2 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4205509202 Freight & Other Carriage Feb 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4205509205 Freight & Other Carriage May 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



FOR THE PERIOD ENDING December 31, 1992

Entity - S/C 30
 Business Unit - Neural Networks 0110
 Cost Center - Newsletters 01500

REPORT PROCESSED ON 22-FEB-93

| | ANNUAL BUDGET | Y.T.D. TOTALS | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|--|------------------|------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| 4205509210 Freight & Other Carriage Oct 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.1 |
| 4206509203 Air Freight Mar 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4206509205 Air Freight May 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4206509208 Air Freight Aug 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4206509210 Air Freight Oct 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ***** Total Postage Expense | | | | | | | | | | | | | | |
| A | 0.0 | 12.8 | 0.0 | 1.1 | 0.3 | 0.0 | 4.0 | 0.1 | 0.0 | 3.1 | 1.1 | 2.0 | 0.2 | 0.9 |
| 4513000000 Editor Fee | | | | | | | | | | | | | | |
| A | 0.0 | 7.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.0 | 0.0 | 0.0 | 2.5 | 0.0 | 0.0 |
| 4515000000 Editorial Reimbursed Expense | | | | | | | | | | | | | | |
| A | 0.0 | 3.4 | 0.0 | 0.0 | 0.0 | 1.7 | 0.0 | 0.0 | 0.8 | 0.0 | 0.6 | 0.3 | 0.0 | 0.0 |
| 4521509201 Composition - Edit Jan 1992 | | | | | | | | | | | | | | |
| B | 21.3 | 21.3 | 1.8 | 1.8 | 1.7 | 1.8 | 1.8 | 1.7 | 1.8 | 1.8 | 1.7 | 1.8 | 1.8 | 1.8 |
| 4553009202 Text Paper Feb 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4553009205 Text Paper May 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4553009210 Text Paper Oct 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 |
| 4581009202 Press Work-Printing Feb 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 1.4 | 0.0 | 0.0 | 1.3 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4581009205 Press Work-Printing May 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4581009208 Press Work-Printing Aug 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| 4581009210 Press Work-Printing Oct 1992 | | | | | | | | | | | | | | |
| A | 0.0 | 2.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.3 | 1.2 |



1993 IEEE Neural Networks Council Document
 Robert J. Marks II Library Acquisitions

FOR THE PERIOD ENDING December 31, 1992

Entity - S/C 30
 Business Unit - Neural Networks 0110
 Cost Center - Newsletters 01500

REPORT PROCESSED ON 22-FEB-93

| | ANNUAL BUDGET | Y.T.D. TOTALS | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|------------|----------------------------|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 4583009201 | Mailing-Prt Ed Jan 1992 | | | | | | | | | | | | | |
| A | 0.0 | 0.7 | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4583009205 | Mailing-Prt Ed May 1992 | | | | | | | | | | | | | |
| A | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4583009208 | Mailing-Prt Ed Aug 1992 | | | | | | | | | | | | | |
| A | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 |
| 4583009210 | Mailing-Prt Ed Oct 1992 | | | | | | | | | | | | | |
| A | 0.0 | 1.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.4 |
| 4631009202 | Label Preparation Feb 1992 | | | | | | | | | | | | | |
| A | 0.0 | 0.4 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4631009205 | Label Preparation May 1992 | | | | | | | | | | | | | |
| A | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4631009207 | Label Preparation Jul 1992 | | | | | | | | | | | | | |
| A | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4631009211 | Label Preparation Nov 1992 | | | | | | | | | | | | | |
| A | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 |
| ***** | TOTAL EXPENSE | | | | | | | | | | | | | |
| A | 0.0 | 36.3 | 0.4 | 1.8 | 2.6 | 2.2 | 4.8 | 1.8 | 6.2 | 3.1 | 2.9 | 4.8 | 2.2 | 3.5 |
| B | 21.3 | 21.3 | 1.8 | 1.8 | 1.7 | 1.8 | 1.8 | 1.7 | 1.8 | 1.8 | 1.7 | 1.8 | 1.8 | 1.8 |
| ***** | TOTAL NET | | | | | | | | | | | | | |
| A | 0.0 | (34.7) | (0.4) | (1.8) | (2.6) | (2.2) | (4.8) | (0.2) | (6.2) | (3.1) | (2.9) | (4.8) | (2.2) | (3.5) |
| B | (21.3) | (21.3) | (1.8) | (1.8) | (1.7) | (1.8) | (1.8) | (1.7) | (1.8) | (1.8) | (1.7) | (1.8) | (1.8) | (1.8) |

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FOR THE PERIOD ENDING December 31, 1992

Entity - S/C 30
 Business Unit - Neural Networks 0110
 Cost Center - Non Periodical 01600

REPORT PROCESSED ON 22-FEB-93

| | ANNUAL BUDGET | Y.T.D. TOTALS | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|----------------------------------|------------------|------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 3408000000 Special Pubs | | | | | | | | | | | | | | |
| A | 0.0 | 1.2 | 0.2 | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.2 | 0.1 | 0.1 | 0.1 |
| ***** TOTAL REVENUE | | | | | | | | | | | | | | |
| A | 0.0 | 1.2 | 0.2 | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.2 | 0.1 | 0.1 | 0.1 |
| 4144000000 Copyright Filing Fees | | | | | | | | | | | | | | |
| A | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4153000000 Credit Card Charges | | | | | | | | | | | | | | |
| A | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 |
| 4581000000 Press Work-Printing | | | | | | | | | | | | | | |
| A | 0.0 | 11.7 | 0.4 | 2.3 | 0.6 | 0.9 | 0.9 | 1.0 | 1.0 | 0.9 | 1.4 | 0.6 | 0.8 | 0.9 |
| ***** TOTAL EXPENSE | | | | | | | | | | | | | | |
| A | 0.0 | 12.0 | 0.4 | 2.3 | 0.6 | 1.0 | 0.9 | 1.0 | 1.0 | 0.9 | 1.4 | 0.6 | 0.9 | 1.0 |
| ***** TOTAL NET | | | | | | | | | | | | | | |
| A | 0.0 | (10.8) | (0.2) | (2.2) | (0.6) | (0.9) | (0.8) | (0.9) | (0.9) | (0.9) | (1.2) | (0.5) | (0.8) | (0.9) |

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FOR THE PERIOD ENDING December 31, 1992

Entity - S/C 30
 Business Unit - Neural Networks 0110
 Cost Center - Meetings/Conferences 01700

REPORT PROCESSED ON 22-FEB-93

| | ANNUAL BUDGET | Y.T.D. TOTALS | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|---|------------------|------------------|-------|------|------|------|------|------|------|--------|-------|------|------|-------|
| 3610000000 Conferences | | | | | | | | | | | | | | |
| B | 290.0 | 290.0 | 24.2 | 24.1 | 24.2 | 24.2 | 24.1 | 24.2 | 24.2 | 24.1 | 24.2 | 24.2 | 24.1 | 24.2 |
| 36100911JS Conferences 91 IJCNN | | | | | | | | | | | | | | |
| A | 0.0 | 67.7 | 0.0 | 35.0 | 20.0 | 0.0 | 0.0 | 10.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.6 |
| 3610092FUZ Conferences 92 FUZZ | | | | | | | | | | | | | | |
| A | 0.0 | 10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 3610092IJC Conferences 92 IJCNN | | | | | | | | | | | | | | |
| A | 0.0 | 2.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.7 |
| ***** TOTAL REVENUE | | | | | | | | | | | | | | |
| A | 0.0 | 80.4 | 0.0 | 35.0 | 20.0 | 0.0 | 0.0 | 20.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.3 |
| B | 290.0 | 290.0 | 24.2 | 24.1 | 24.2 | 24.2 | 24.1 | 24.2 | 24.2 | 24.1 | 24.2 | 24.2 | 24.1 | 24.2 |
| 4302000000 Conference Admin Charge | | | | | | | | | | | | | | |
| A | 0.0 | 6.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.6 |
| 4999000000 Unidentified & Misc Other Exp | | | | | | | | | | | | | | |
| A | 0.0 | 0.7 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 |
| B | 130.0 | 130.0 | 10.8 | 10.9 | 10.8 | 10.8 | 10.9 | 10.8 | 10.8 | 10.9 | 10.8 | 10.8 | 10.9 | 10.8 |
| 49990911JC Unidentified & Misc Other Exp 91 IJCNN | | | | | | | | | | | | | | |
| A | 0.0 | 22.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4999093FUZ Unidentified & Misc Other Exp 93 FUZZ | | | | | | | | | | | | | | |
| A | 0.0 | 0.9 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ***** TOTAL EXPENSE | | | | | | | | | | | | | | |
| A | 0.0 | 30.5 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22.3 | 0.4 | 0.0 | 0.0 | 6.6 |
| B | 130.0 | 130.0 | 10.8 | 10.9 | 10.8 | 10.8 | 10.9 | 10.8 | 10.8 | 10.9 | 10.8 | 10.8 | 10.9 | 10.8 |
| ***** TOTAL NET | | | | | | | | | | | | | | |
| A | 0.0 | 49.9 | (1.2) | 35.0 | 20.0 | 0.0 | 0.0 | 20.1 | 0.0 | (22.3) | (0.4) | 0.0 | 0.0 | (1.3) |
| B | 160.0 | 160.0 | 13.4 | 13.2 | 13.4 | 13.4 | 13.2 | 13.4 | 13.4 | 13.2 | 13.4 | 13.4 | 13.2 | 13.4 |



FOR THE PERIOD ENDING December 31, 1992

Entity - S/C 30
 Business Unit - Neural Networks 0110
 Cost Center - Committee & Other 01900

REPORT PROCESSED ON 22-FEB-93

| | ANNUAL BUDGET | Y.T.D. TOTALS | JAN. | FEB. | MAR. | APR. | MAY. | JUN. | JUL. | AUG. | SEP. | OCT. | NOV. | DEC. |
|-----------------|------------------|------------------|------|------|-------|-------|-------|-------|--------|--------|-------|-------|-------|--------|
| ***** TOTAL NET | | | | | | | | | | | | | | |
| A | 0.0 | (37.5) | 43.9 | 0.1 | (1.4) | (1.3) | 0.6 | (4.7) | (22.7) | (19.5) | (6.0) | (6.0) | (0.5) | (20.0) |
| B | 1.5 | 1.5 | 39.6 | 5.0 | (2.9) | (2.0) | (0.1) | (2.5) | (3.4) | (22.6) | (5.7) | (1.7) | (1.9) | (0.3) |

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NNC PUBLICATIONS COMMITTEE

12/5/92 Meeting Notes

Scottsdale, AZ

The Committee met at the Arizona Biltmore Hotel on 12/5/92, prior to the AdCom meeting. Those in attendance were: S.V. Kartalopoulos, Chair, Don Brown, Jim Bezdek, Oscar Garcia, Enrique Ruspini, Wes Snyder, Patrick K. Simpson, Robert J. Marks II, Russ Eberhart. Later, Phyllis Hall and Pete Morley joint the meeting.

Kartalopoulos, NNC Pub-Committee Chair, opened the meeting with a status of published books sponsored by NNC. The three books (Bezdek, Law, and Law/Sinencio) hold second or first place in IEEE Press 1992 sales. However, despite this success, it was thought that the NNC royalty seemed small (total \$1500 approx.). It was also expressed that a higher royalty may be negotiated in the future. The Committee asked that it would be more enlightening to have a breakdown of expenses from IEEE Press for each book. The latter would provide a better understanding of the effort necessary for publishing a book. Kartalopoulos also gave a report of books in preparation and books proposed. A copy of a handbook (for standard data sets) proposal to IEEE Press was handed to him by Simpson.

The possibility of partnership with other publishers, internal like Computer Society and external like MacMillan, was also discussed. A book proposal under review (Haykin) is a strong candidate for partnering with MacMillan. The consensus was positive. In addition, the lack of a book reviewer list was discussed; Marks volunteered to share his book reviewer list for Trans. NN. Kartalopoulos also mentioned that IEEE Press has established a "Book review honorarium" for book proposal reviewers. The amount is negotiated between IEEE Press and the reviewer.

Robert Marks II, Trans. NN editor, raised the budget issue for Trans. NN. To date, it is not clear what the budget for the Trans. NN, and also Trans. Fuz. is, what the accountability is and also what the process for expense reimbursement.

He proposed that the editor of the Trans. NN receive a stipend of \$14K and of the Trans. Fuz. \$8K for all their expenses. The Committee passed to recommend this proposal to AdCom.

Marks brought the issue of Kosko's book review. The review has not been published by the Trans. NN and it has been tabled by IEEE Press Administration (Phyllis Hall). The explanation by Hall was that there is evidence of conflict of interest between the author and the reviewer, triggered by Simpson's paper on Fuzzy-ART. Simpson removed himself from the meeting room and the discussion continued. Phyllis Hall and Pete Morley were called in the meeting room for consultation on the subject; they happened to be there for a PAB meeting. Phyllis explained that she has a thick file as evidence on the confrontation between Kosko and Simpson. However, Oscar Garcia made the point that Phyllis in her letter (re: Kosko's book review) made

judgement that there is indeed a conflict of interest, prior to having the story heard from both sides. The decision of the Committee, with the president's consent, was that Kosko's book review issue is referred to the IEEE Publications Board by the president of NNC.

Pat Simpson, NNC Vice-Chair, presented for D. Fogel the possibility of a new Trans. on Evolutionary Systems sponsored by NNC with four issues per year. Fogel has also approached Kluwer and other publishers. The Committee recommended that Pat will form a team consisting of Fogel, D. Goldberg and Bach and ask them to make a joint proposal.

Wes Snyder, Newsletter editor, discussed issues concerning the NNC Newsletter "Connections".

- A. It looks like 1991 expenses were charged against 1992. Also, \$1200 mailing expenses were charged by mistake to newsletter.
- B. He raised the question whether the newsletter should include short articles. No decision. Question was deferred to AdCom.
- C. He requested clarification on advertisement fees in the newsletter. A motion passed to recommend to AdCom that the rates to advertisers NNC has financial involvement with would be discounted by 50%.

Kartalopoulos expressed the need by IEEE Press of student help at its Conference booths. The Conference organizers should contact directly the local IEEE chapters for student help.

A presentation was made by Don Brown, Ad-Hoc Committee Chair, concerning recommendations on Transaction(s) expansion (see page 115 of 12/92 NNC green book). The Committee endorsed recommendation 1 (a new Trans. on Applications in Computational Intelligence) and forwarded the recommendation to AdCom.

A question was raised as to the where the responsibility lies concerning CD-ROM production for IEEE Conference Records. Pete Morley informed the Committee that the IEEE PUB Board (Products Council) is the responsible organization. He mentioned that Helen Wood (V.P) will be the person to see that CD-ROM takes place.

Respectfully submitted

Stamatios V Kartalopoulos, PhD
NNC Publications Committee Chair

Date: Wed, 24 Mar 93 10:38:03 EST
From: Donald Brown <deb@tweety.ipc.virginia.edu>
To: marks@milton.u.washington.edu,
rce@rti.rti.org, svk@hotstone.att.com
Subject: Journal on Applications

Russ, Bob, and Stamatios,

Below is the draft scope and need statement for the proposed Journal on Applications in Computational Intelligence (JACI). I need to get from Russ (or someone) an example of previous proposals to complete the administrative & editorial and financial plan sections of the proposal.

I did some research into this whole area of applications journals. I am sorry I will not be able to present this to the publications committee in person, but here is a real brief summary. There appears to be a very strong demand for both publishing and reading articles about applications. There are some competitors. The closest in the IEEE is IEEE Expert. This is a magazine designed for people involved with "expert systems, artificial intelligence technologies, and knowledge-based/database systems." The list neural networks as one of their topics and some papers have appeared. However, this magazine is clearly oriented toward the "symbolic" versus cybernetic (if you will allow me to use that term) view of intelligence. Also, they do not specifically highlight applications.

I won't bore you with the list of journals outside IEEE that bear some similarity to our proposed journal. However, after looking through a large number of them, I am convinced that we can put together a journal that would be at the high end (in quality) of those available and that would fit a niche not currently covered by anyone else - the combination of applications with computational intelligence (e.g. neural nets, fuzzy sets, ga's, etc.).

Finally, I use the name IEEE Journal on Applications in Computational Intelligence (JACI). Contrary to some comments at the last meeting, the IEEE does not distinguish (at least in the published regulations) between a journal and a transactions. However, some folks seemed to feel that the name transactions implied something different from applications. Anyway, I like the acronym JACI (an old girl friend) better than TACI.

Thanks and I would appreciate any comments.

Don

Draft Proposal for
IEEE Journal on Applications in Computational Intelligence
March 20, 1993

Scope:

The IEEE Journal on Applications in Computational Intelligence (JACI) is a quarterly publication of the IEEE Neural Networks Council focusing on real applications of computer-based models of intelligence. Examples of

these models of intelligence include:

- neural networks
- genetic algorithms
- evolutionary programming
- fuzzy sets and systems
- self-organizing systems,
- uncertainty management systems
- adaptive networks

Applications reported in this journal will use the technologies of computational intelligence, such as those above, to resolve specific real-world problems. Typically, but not necessarily these applications will involve a decision of economic value. More generally, the resolution of the problem will have clear and measurable benefits to an organizational entity. Example applications include but are not limited to the following:

- design, engineering, manufacturing, and production
- real-time operations and control
- monitoring, diagnostics, and testing
- transportation, logistics, and material flow

The primary objective of JACI is to present articles in a specific application area for the benefit of an audience composed of professional engineers and engineering managers who use the methodologies of computational intelligence for real-world problem solving. Articles can describe technically important work from industry, government, academia, and private foundations. Additionally, JACI will publish case-studies, tutorials, and suveys in specific applicaion areas. JACI will also feature new patent information as a service to its readers.

Need:

The IEEE has noted a clear increase in the demand for applications articles. The IEEE Technical Activities Board (TAB) conducted a study three years ago concerning IEEE Publications, and the results showed that the IEEE membership wanted more applications articles in the IEEE journals. The panel of IEEE Editors reported at their August 24, 1992 meeting that "IEEE Members have asked for more applications-oriented papers." There has also been growth in applications oriented conferences, such as, "Artificial Neural Networks in Industry and Engineering." This conference receives roughly 600 submissions per year and competes with roughly three annual neural network conferences (including the IJCNN). Eric Herz, IEEE's executive director, cited SPIE as an organization that was successfully targeting the demand for applications. SPIE has, for instance, conducted a number of conferences on applications in neural networks and artificial intelligence. Within the genetic algorithms/evolutionary programming community there is also strong interest in applications. An informal survey of papers submitted to the next Genetic Algorithms Conference showed about 1/3 were applications papers. All this activity shows clearly the demand for publications outlets for papers describing applications of computational intelligence.

James C. Bezdek

Computer Science
Univ. of West Florida
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jbezdek@uwf.bitnet



Russ Eberhart, President
Neural Networks Council
Research Triangle Institute
P.O. Box 12194
Research Triangle Park, NC 27709

Attached : The cumulative MINUTES OF THE IEEE NEURAL NETWORK COUNCIL (NNC) MEETINGS COMMITTEE.

Respectfully submitted,

Jim Bezdek 2/18/92

Jim Bezdek, Chair
NNC Meetings Committee

cc: members of the meetings committee (Karplus, Newcombe, Nutter)

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| | In Attendance | Location : Baltimore Convention Center, June 6 , 1992 |
|----|---------------------------|---|
| 1 | Jim Bezdek, Chair (voter) | |
| 2 | Walter Karplus (voter) | |
| 3 | Bob Newcombe (voter) | |
| 4 | Roy Nutter (voter) | ABSENT |
| 5 | Russ Eberhart (voter) | President, IEEE NNC |
| 6 | Pat Simpson | Vice president, IEEE NNC |
| 7 | Bob Marks | Editor, Trans. NN, Member, NNC Adcom |
| 8 | Enrique Ruspini | FUZZ-IEEE '93, ICNN '93 |
| 9 | Tom Caudell | VRAIS '93, '94 |
| 10 | Charles Robinson | Orlando WCCI |
| 11 | Yianni Attikiouzel | ICNN '95 |

| | In Attendance | Location : Biltmore Hotel, Scottsdale, Dec. 5, 1992 |
|----|---------------------------|--|
| 1 | Jim Bezdek, Chair (voter) | |
| 2 | Walter Karpus (voter) | |
| 3 | Bob Newcombe (voter) | |
| 4 | Roy Nutter (voter) | ABSENT |
| 5 | Russ Eberhart (voter) | |
| 6 | Pat Simpson | Vice President, IEEE NNC and 1997 World Congress on Intelligent Systems, San Diego |
| 7 | Bob Marks | Editor, Trans. NN |
| 8 | Enrique Ruspini | FUZZ-IEEE '93, ICNN '93 |
| 9 | Bob Lobbia | President, IEEE Sectional, San Diego |
| 10 | Charles Robinson | 1994 World Congress on Intelligent Systems, Orlando |
| 11 | Kesh Bakru | Member, NNC Adcom |
| 12 | Dmitry Kaplan | Finance chair, RNNS(Rostov), VRAIS '92 |
| 13 | Litia Tzanakou | Member, NNC Adcom |
| 14 | Steve Marlin | Meeting Management |
| 15 | Edgar Sanchez | Member, NNC Adcom |

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| In Attendance | | Location : Hilton Hotel, San Francisco, March 27, 1993 |
|---------------|---------------------------|--|
| 1 | Jim Bezdek, Chair (voter) | |
| 2 | Walter Karplus (voter) | |
| 3 | Bob Newcombe (voter) | |
| 4 | Roy Nutter (voter) | |
| 5 | Russ Eberhart (voter) | President, IEEE NNC |
| 6 | Pat Simpson | Vice President, IEEE NNC and 1997 World Congress on Intelligent Systems, San Diego |
| 7 | Bob Marks | Editor, Trans. NN |
| 8 | Enrique Ruspini | FUZZ-IEEE '93, ICNN '93 |
| 9 | Bob Lobbia | President, IEEE Sectional, San Diego |
| 10 | Charles Robinson | 1994 World Congress on Intelligent Systems, Orlando |
| 11 | Fred Petry | 1995 FUZZ-IEEE, New Orleans |
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| ITEM of BUSINESS | CURRENT STATUS & NOTES | ACTIONS OF THE NNC MEETINGS COMMITTEE |
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| <p>----- June 6, 1992 -----</p> <p>Number of ICNN meetings to hold each calendar year. One in the US and one outside; or one per year, alternating in the US and outside ? (Bezdek).</p> | <p style="text-align: center;">Completed</p> | <p>Motion : There be a world congress on computational intelligence no more often than every three years, beginning with the WCCI in Orlando, 1994. Approved.</p> <p>Motion : In non-WC years such as 1995, 1996, etc., there be at most one each of the following NNC sponsored meetings : FUZZ-IEEE, ICNN, VRAIS, GA/EP; and that this restriction does not preclude co-sponsorship or cooperating status for forums, workshops etc. Approved.</p> |
| <p>----- June 6, 1992 -----</p> <p>NNC guidelines for contractual services offered by conference management firms (Bezdek)</p> <p>----- March 27, 1993 -----</p> | <p>Pat Simpson agreed to take a first cut at drafting guidelines for all NNC sponsored conferences, one part of which details requirements for contractual services offered to the NNC by conference management firms.</p> <p>-----</p> <p>Need ; Discussion and Status Report</p> | <p>No discussion of this item at the December meeting.</p> |
| <p>March 8-12, 1992</p> <p>----- June 6, 1992 -----</p> <p>Status Report : (Jim Bezdek)</p> <p>----- Dec. 5, 1992 -----</p> <p>Status Report : (Jim Bezdek)</p> | <p>FUZZ-IEEE '92, San Diego, CA</p> <p>-----</p> <p>Financial data are 99% complete. NNC will receive about \$85K surplus; IEEE San Diego Section with receive about \$9K surplus. Karplus opined that this might suggest lowering registration fees in future years.</p> <p>-----</p> <p>The financial audit is complete and final report has been submitted to the NNC. Final surpluses were as follows:</p> <p>IEEE NNC : \$ 79,763.89 and IEEE S.D. : \$ 9973.76</p> <p style="text-align: center;">Completed</p> | |

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| <p>June 6, 1992</p> <p>----- June 6, 1992 -----</p> <p>Status Report : (R. Eberhart)</p> <p>----- Dec. 5, 1992 -----</p> <p>Status Report : (R. Eberhart)</p> <p>----- March 27, 1993 -----</p> | <p>GA/NN Forum, Baltimore</p> <hr/> <p>Roughly 82 paid attendees, probably will be a surplus situation. No action required.</p> <hr/> <p>Eberhart reported that there will be a surplus of about \$ 1-2 K</p> <hr/> | |
| <p>June 7-10, 1992</p> <p>----- Dec. 5, 1992 -----</p> <p>Status Report : (N. Feldman)</p> <p>----- March 27, 1993 -----</p> | <p>IJCNN, Baltimore.</p> <hr/> <p>Estimated surplus is about \$ 154 K, half of which will be paid to the INNS. Of our half, 10%~ \$ 8K will go to the Baltimore local.</p> <hr/> | |
| <p>October 7-10, 1992</p> <p>----- June 6, 1992 -----</p> <p>Status Report : (W. Snyder)</p> <p>----- Dec. 5, 1992 -----</p> <p>Status Report : (W. Snyder)</p> <p>----- March 27, 1993 -----</p> | <p>Rostov-on the Don with RNNS</p> <hr/> <p>W. Snyder circulated a preliminary program for this meeting, and speculated that it will probably run a deficit of \approx \$10K.</p> <hr/> <p>Snyder reported that the meeting was an academic success, but that the NNC stood to lose as much as \$14K, depending on our success at getting the IEEE to honor the book broker agreement. He stated that \$ 3300 was needed to close the books.</p> <hr/> | <p>Motion : \$3300 to Snyder to close the accounts of the conference.</p> <p>Approved.</p> <hr/> |

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| <p>Nov. 3-9, 1992</p> <p>----- June 6, 1992 -----</p> <p>Status Report : (Eberhart)</p> <p>----- Dec. 5, 1992 -----</p> <p>Status Report : (Eberhart)</p> <p>----- March 27, 1993 -----</p> | <p>IJCNN, Beijing, PRC</p> <hr/> <p>400 papers from inside China have been accepted. INNS has not approved cooperation. Meeting to be held at the Continental Grand Hotel.</p> <hr/> <p>Academic success. Too early to estimate financial situation.</p> <hr/> | <hr/> <hr/> <hr/> <hr/> |
| <p>March 28- April 1, 1993</p> <p>----- June 6, 1992 -----</p> <p>Status Report : (Ruspini)</p> <p>----- Dec. 5, 1992 -----</p> <p>Status Report : (Ruspini)</p> <p>----- March 27, 1993 -----</p> | <p>FUZZ-IEEE '93/ICNN, San Francisco, CA</p> <hr/> <p>All contracts have been signed, everything looks pretty good. Requested : \$50 additional seed money. IEEE needs a formal conference formpak completed for ICNN portion - Eberhart to request formpak from Sensi for Ruspini.</p> <hr/> <p>Another large, detailed status report. Everything seems to be on schedule. Request for help with CD ROM problems. Request for an additional \$ 15 K seed money.</p> <hr/> | <hr/> <p>Motion : \$ 50K seed to Ruspini : <i>Approved.</i></p> <p>Motion : Approve budget, pp. 35-38, NNC ADCOM handbook for June 6,7, 1992. <i>Approved.</i></p> <hr/> <p>Motion : \$15K additional seed to Ruspini : <i>Approved.</i></p> <hr/> |

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| <p>August 17-20, 1993</p> <p>----- June 6, 1992 -----</p> <p>Status Report : (Russ Eberhart)</p> <p>----- Dec. 5, 1992 -----</p> <p>Request by Les Atlas</p> <p>----- March 27, 1993 -----</p> | <p>ICNNASP, Singapore</p> <hr/> <p>Everything seems in order.</p> <hr/> <p>Les Atlas requested that the NNC require the ICNNASP to make two changes to their announcements and calls for papers: (1), to change "sponsor" to "co-sponsor"; and (2), to drop "IEEE" from the title. These changes agree with documentation approved by ADCOM, p. 103, Baltimore Handbook, June 7, 1992.</p> | <hr/> <p>Motion : Approve budget, p. 101-103, NNC ADCOM handbook for June 6,7, 1992. Approved.</p> <hr/> <p>Motion : Bezdek was directed to write Dr. Gan and inform him of the required changes. Dr. Marcelo Ang responded to Bezdek's letter and stated that the changes would be made.</p> |
| <p>Sept. 18-22, 1993</p> <p>----- June 6, 1992 -----</p> <p>Status Report : (Tom Caudell)</p> <p>----- Dec. 5, 1992 -----</p> <p>Status Report : (Dmitry Kaplan)</p> <p>----- March 27, 1993 -----</p> | <p>VRAIS conference. Seattle, WA</p> <hr/> <p>Due to an oversight, approval of the budget and seed money which was given by ADCOM in June, '92 did not get into the minutes. Requests to reapprove the budget and authorize 50K seed money (45K prior) were made by the finance chair, Dmitry Kaplan .</p> | <hr/> <p>Caudell gave a short report on VRAIS '93, and then requested \$20K additional seed money. Motion : \$20K seed to Caudell : Approved.</p> <hr/> <p>Motion : Approve budget, pp. 52-57, NNC ADCOM handbook for June, 1992. Approved.</p> <hr/> <p>Motion : Additional 50K seed money for printing and mailing expenses. Approved.</p> |

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| <p>October , 25 - 29, 1993</p> <p>----- June 6, 1992 -----</p> <p>ICNN, Nagoya, Japan Status Report : (T. Fukuda)</p> <p>----- Dec. 5, 1992 -----</p> <p>----- March 27, 1993 -----</p> | <p>IJCNN '93, Nagoya, Japan</p> | <p>Fukuda/Amari request use of the name IJCNN.</p> <p>Motion : Fukuda advance IJCNN as an alternative. If this is not palatable to the Japanese, the meetings committee defers resolution to the NNC Excom. Approved.</p> |
| <p>June 24 - July 1, 1994</p> <p>----- June 6, 1992 -----</p> <p>Status Report : (C. Robinson)</p> <p>----- Dec. 5, 1992 -----</p> <p>Status Report : (C. Robinson)</p> <p>----- March 27, 1993 -----</p> | <p>1994 WCCI, Orlando : FUZZ-IEEE , ICNN, EC</p> <p>Dr. Piero Bonissone General Electric CR & D 1 River Road : KI-5C32A Schenectady, NY 12301</p> <p>Dr. Z. Michalewicz Computer Science Dept. Univ. of North Carolina Charlotte, NC 28223</p> <p>Major Steve Rogers AFIT, School of Engineering Wright Patterson AFB Dayton, OH 45433</p> <p>Charles Robinson School of Health Univ. of Pittsburg Pittsburg, PA 15261</p> <p>C. Robinson submitted his resignation as chair, but agreed to serve as co-chair with Marks until a new chair could be found. Committee agreed to recommend J. Zurada. An organizational planning meeting will be held in Orlando on Jan. 9-10; Robinson requested additional 10K in seed money to pay for this meeting.</p> | <p>Motion : 3 tracks at the WCCI : Approved.</p> <p>GENERAL Chair, C. Robinson at [c.robinson@ieee.org].</p> <p>FUZZ-IEEE : GC = P. Bonissone PC = E. Ruspini ICNN : GC = S. Rogers PC = Dennis Ruck GA/EP : GC = Z. Michalewicz PC = TBD</p> <p>Marks was asked if he could find a general chair for the VRAIS portion of the WCCI; he agreed.</p> <p>Motion : 10K seed money to Robinson for organizational meeting and other expenses. Approved.</p> |

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| <p>Sept-Oct, 1994</p> <p>----- Jan. 9, 1993 ----- Orlando meeting of WCCI</p> <p>----- March 27, 1993 -----</p> | <p>VRAIS - 1994, North Carolina</p> <p>The VR portion of the WCCI is removed from the 1994 congress, and a separate VR meeting is recommended. Need : Consent agenda approval for Trimble = General Chair. Need : Detailed budget and proposal</p> | <p>Dr. John L. Trimble, General Chair 1814 N. Bissell Chicago, Ill 60614 FAX 312 664 6491 (B) 312 781 9680</p> |
| <p>March, 1995</p> <p>----- June 6, 1992 ----- Proposal : (T. Fukuda)</p> <p>----- Dec. 5, 1992 ----- Status Report : (none given)</p> <p>----- March 27, 1993 -----</p> | <p>FUZZ -IEEE (with IFES), Yokohama, Japan</p> <p>Disussion of proposal by Sugeno et. al.</p> <p>Need : Detailed Budget</p> | <p>Motion : FUZZ-IEEE '95 be held in Yokohama, Japan, as a joint meeting with the LIFE meeting IFES, with M. Sugeno as General Chair, Hirota/Fukuda as co-PCs . Approved.</p> |
| <p>October, 1995</p> <p>----- June 6, 1992 ----- Proposal : (Y. Attikiouzel)</p> <p>----- Dec. 5, 1992 ----- Status Report : (none given)</p> <p>----- March 27, 1993 -----</p> | <p>ICNN, Perth, Australia</p> <p>Disussion of proposal presented by Y. Attikiouzel.</p> <p>Need : Detailed Budget</p> | <p>Motion : The 1995 ICNN be held in Perth, Australia, with Y. Attikiouzel as General Chair . Approved.</p> |

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| <p>June, 1996</p> <p>----- June 6, 1992 -----</p> <p>Status Report: (Jim Bezdek)</p> <p>----- Dec. 5, 1992 -----</p> <p>Status Report: (Steve Marlin)</p> <p>----- March 27, 1993 -----</p> | <p>ICNN, Washington, D.C</p> <p>-----</p> <p>We have a contract in place. Need : General and Program chairs.</p> <p>-----</p> | <p>-----</p> <p>Motion : The NNC will hold an ICCN at the property in 1996, with GC/PC to be determined later. Approved.</p> <p>Bezdek to contact Perry Sensi about dealing with the Sheraton for the contract. Sensi was reluctant to enter the fray, because Meeting Management made initial contract.</p> <p>No one has been identified as general chair for this conference; revisit the problem at our next committee meeting.</p> <p>-----</p> |
| <p>TBD, 1996</p> <p>----- March 27, 1993 -----</p> <p>Proposal (F. Petry)</p> <p>----- ***** 1993 -----</p> | <p>FUZZ-IEEE '96</p> <p>-----</p> <p>-----</p> | <p>-----</p> <p>-----</p> |

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| <p>Summer, 1997</p> <p>----- Dec. 5, 1992 -----</p> <p>Proposal (P. Simpson)</p> <p>----- March 27, 1993 -----</p> | <p>WCCI, San Diego, CA</p> <hr/> <p>Proposal from the San Diego section of the IEEE for hosting the next West Coast NNC sponsored meeting.</p> <hr/> | <hr/> <p>Recommended : P. Simpson will encourage the San Diego section to formulate and submit a revised proposal for the 1997 world congress, detailing their involvement.</p> <hr/> |
| <p>Consideration Item</p> | <p>Request by Kim for various junk in connection with some Korean conference Oct. 17-20, 1994. No request has come to Bezdek.</p> | |
| | | |

1b.

| Date of email | Item of Business | Date and Action |
|---------------|--|--|
| 3/18/92 | Cooperating status for 2nd Annual conference on Evolutionary Programming, Feb. 25-26, 1993, San Diego, request by David Fogel, EP Society. | Approved : 3/23/92 |
| 3/18/92 | Cooperating status for WNN '92, Houston, date not specified, request by M.L. Padgett, Auburn Univ. | Approved : 3/23/92 |
| 3/18/92 | Cooperating status for WNN '93, Monterey, date not specified, request by M.L. Padgett, Auburn Univ. | Approved : 3/23/92 |
| 4/2/92 | Cooperating status for Intelligent Vehicles '93, July 14-16, 1993, Tokyo, request by I. Masaki, GM. | Approved : 4/8/92 |
| 7/7/92 | Cooperating status for ICANN93 from September 13-16 in Amsterdam, request by H.J. Kappen. | Approved : 7/8/92 |
| 10/4/92 | Cooperating status the IEEE Workshop on Neural Networks for Signal processing. Linthicum, MD, September 7-9, 1993. Request by Gary Kuhn. | Karplus, Eberhart, Nutter, Bezdek=yes;Newcombe =no Approved : 10/6/92. |

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| 10/10/92 | <p>Cooperating status for EP'94, the 3rd Evolutionary Programming conference, Feb. 24-25, 1994, San Diego, CA. Request by David Fogel.</p> <p>Marks suggests that, in return, all IEEE members be charged the same conference fees charged to the sponsoring society? Good idea.</p> | <p>Karplus, Eberhart, Nutter, Bezdek, Simpson, Newcomb = yes; Approved : 10/15/92</p> |
| 11/10/92 | <p>Cooperating status for the International Conference on Neural Networks and Signal Processing, Nov. 2-5, 1993, in Guangzhou, China. It is sponsored by the Chinese Institute of Electronics CAS; and the IEEE CAS is already "in cooperation with". The General Chair is Prof. Bing-Zheng Xu, Institute of Radio Engg. & Automation, South China University of Technology, Guangzhou 510641, China. The Program Chair is Prof. Zhen-Ya He, Radio Engineering Dept., Southeast University, Nanjing 210018, China. Prof. His fax number is 86-25-714212.</p> | <p>Eberhart, Bezdek, Karplus = yes; Approved : 2/7/93</p> |
| 11/24/92 | <p>Cooperating status for the 1993 International Symposium on Nonlinear Theory and its Applications in Hawaii (Sheraton Waikiki Hotel) on December 6 - 9, 1993. It is sponsored by the Nonlinear Group of IEICE, organized by University of Hawaii and cosponsored by IEEE Hawaii Section. The General Co-chairs are Shun-ichi Amari, Prof. Anthony Kuh at Hawaii University and Prof. Shinsaku Mori at Keio University. Shun-ichi Amari is the Program Chair.</p> | <p>Eberhart, Bezdek, Karplus, Nutter = yes; Approved : 12/1/92</p> |
| 12/28/92 | <p>Request for technical co-sponsorship of the 2nd IEEE Int'l Workshop on Robot and Human Communication, Nov. 3-5, 1993, Science University of Tokyo, Fumio Hara, General Chair; Kobayashi, Fukuda and Harashima, coPCs. (no money obligation). Request by T. Fukuda.</p> | <p>Eberhart, Bezdek, Nutter, Karplus = yes Approved : 12/29/92</p> |
| 1/11/93 | <p>Cooperating status for the FIRST BOSTON-AREA FUZZY LOGIC WORKSHOP, February 25, 1993, GTE Laboratories Waltham, MA. Request by Allen Bonde</p> <p>Allen Bonde, Chair Fuzzy Boston '93 GTE Government Systems Corp. 77 'A' Street Needham Heights, MA 02194 E-mail: abonde@gte.com (preferred) FAX: 617-455-5365</p> | <p>Eberhart, Karplus, Bezdek, Nutter = yes. Approved : 1/11/93</p> |

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| 1/12/93 | <p>Cooperating status for the ICARCV'94 , Third International Conference on Automation, Robotics and Computer Vision '94), 13 to 16 September 1994, Singapore. Request by M.Ang.</p> <p>Marcelo H. Ang Jr. Department of Mechanical and Production Engineering National University of Singapore Singapore 0511 Tel 65-772-2555 Fax 65-779-1459 e-mail: MPEANGH@NUSVM.bitnet</p> | <p>Karplus, Newcombe Nutter, Bezdek = yes.</p> <p>Approved : 2/5/93</p> |
| 2/6/93 | <p>Cooperating status for the ETFA'93, 2nd IEEE International Workshop on Emerging Technologies for Factory Automation Design and Operation of Intelligent Factories September 27-29, 1993, Palm Cove - Cairns, Australia</p> <p>Richard Zurawski , General Chairman Laboratory for Concurrent Computing Department of Electrical & Computer Swinburne University of Technology John Street, Melbourne 3122, Australia Phone +61 3 728 71 61 Fax +61 3 728 71 83 E-mail: rzz@stan.xx.swin.oz.au</p> | <p>Eberhart, Bezdek Karplus = yes. Nutter, Newcombe, Marks(advisory) = no.</p> <p>Approved : 2/8/93</p> |
| 2/10/93 | <p>Request for technical co-sponsorship for the 1993 IEEE/Nagoya University WWW on Learning and Adaptive Systems, Oct. 22-23, 1993, Nagoya, Japan. (no money obligation). Request by T. Fukuda.</p> <p>Toshio Fukuda, General co-chair Dept of Mechano-Informatics and Systems Nagoya University Furo-cho, Chikusa-ku, Nagoya 464-01, Japan Tel : 81-52-781-5111 x 4478 Fax : 81-52-781-9243</p> | <p>Bezdek, Eberhart, Karplus, Nutter = yes.</p> <p>Approved : 2/18/93</p> |

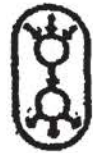
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| 2/10/93 | Request for technical co-sponsorship for the 1993 IEEE/Nagoya University WWW on Multiple and Distributed Robotic Systems, Oct. 22-23, 1993, Nagoya, Japan. (no money obligation). Request by T. Fukuda. Toshio Fukuda, General co-chair Dept of Mechano-Informatics and Systems Nagoya University Fruo-cho, Chikusa-ku, Nagoya 464-01, Japan Tel : 81-52-781-5111 x 4478 Fax : 81-52-781-9243 | Bezdek, Eberhart, Karplus, Nutter = yes. Approved : 2/18/93 |
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NEURAL NETWORKS COUNCIL



Robert J. Marks II
Past President

PLEASE REPLY TO:
Interactive Systems Design Laboratory
Department of Electrical Engineering, FT-10
University of Washington
Seattle, WA 98195 USA
Tel: (206) 548-8000 (O)
Tel: (206) 778-8995 (H)
Fax: (206) 548-9842
e-mail: marks@milton.u.washington.edu

March 10, 1993

Russell C. Eberhart, President
IEEE Neural Networks Council
Research Triangle Institute
P.O. Box 12194
Research Triangle Park, NC 27709

Dear President Eberhart,

Attached is a correspondence from the President of the RNNS requesting NNC participation in the second RNNS/IEEE Symposium. I ask that the request be considered at the upcoming March 1993 AdCom.

I propose we proceed with dialog, with the firm understanding that the conference must, at minimum, break even.

Sincerely,

Robert J. Marks II, Past President
IEEE Neural Networks Council

cc: Jim Bezdek, NNC Meetings Chair
NNC AdCom

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wldb@ippi.msk.su

February 2, 1993

Professor Robert J. Marks II,
International Chair,
1992 RNNS/IEEE Symposium on
Neuroinformatics and Neurocomputers,
University of Washington,
Department of Electrical Engineering,
c/o 1131 199th St.S.W., Suit N,
Lynnwood, WA 98036-7138

Dear Robert:

Three months have passed after our Symposium finish. The time have shown that we were right and the Symposium was really useful. There are some further steps which seem to be necessary for future life. This is an objective for this letter.

The first problem is to conclude financial problems with the Symposium passed. I've send a formal letter to Dmitry Kaplan and hope that everything will be OK. Should you see here any problem, do inform me.

The second question is the date and place for the next RNNS/IEEE Symposium on Neuroinformatics and Neurocomputers. The RNNS opinion have been expressed at the 2-nd Congress of the RNNS, which have taken place in Moscow on December 17, 1992. The Congress have proposed the Second RNNS/IEEE Symposium on Neuroinformatics and Neurocomputers to be in September-October 1994 in Rostov-on-Don. The consultations with local and Moscow authorities gives for the
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IEEE Neural Network Council and suppose you are a proper man of the IEEE NNC, to whom I ought to give these suggestions of the RNNS. I think, that the dates and place should be co-ordinated first and the other problems must be solved before this autumn. In case you think, that I should write to somebody else, I hope you'll inform me.

The third problem is a problem of a specialized Russian issue of the IEEE TNN. I feel myself rather uneasy at this point, because nobody in fact informed me, which works of the Symposium are the best to his opinion. May be this fact shows, that the idea is rather premature. I've already recommended you one paper from Russia (Dmitriev A.S. and others from Institute of Radio-Electronic, Moscow), hope, you've already got the paper. In future I can promise you, that I'll recommend to the Journal the papers, which deserve to be published in an extra mode.

Sincerely yours
with best wishes



Witali, (Dunin-Barkowski)
Chair, 1992 RNNS/IEEE Symposium
on Neuroinformatics and Neurocomputers



NEURAL NETWORKS COUNCIL



Robert J. Marks II
Past President

PLEASE REPLY TO:
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University of Washington
Seattle, WA 98198 USA
Tel: (206) 543-8000 (O)
Tel: (206) 776-8995 (H)
Fax: (206) 543-3842
e-mail: marks@mlton.u.washington.edu

March 10, 1993

James C. Bezdek, NNC Meetings Chair
The University of West Florida
Computer Science
11000 University Parkway
Pensacola, Florida 32514-5750

Dear Jim,

Attached is a request for the NNC to be a cooperating society in ICANN'94.

I am submitting it for consideration at the upcoming AdCom meeting in San Francisco.

Sincerely,

Robert J. Marks II, Past President
IEEE Neural Networks Council

cc: Dr. Pietro G. Morasso
NNC AdCom

077771

03-03 '93 10:22

P01

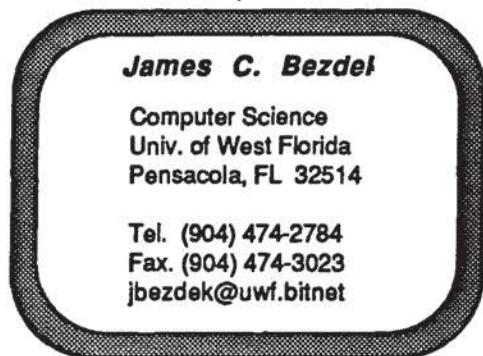


ICANN'94 Sorrento - Italy
May 26-29, 1994

From: Pietro C. Morasso, co chair of ICANN'94-Sorrento
University of Genova, DIST (Dept. of Informatica, Systems, Telecommunication)
Via Opera Pia 11A, 116145 Genova, Italy
Tel: +39 10 3532740 — Fax: +39 10 3532948 — Email: morasso@dist.unige.it
To: Prof. R.J. Marks II - IEEE-NNC Editor in Chief
fax: 001 206 543 3842
Number of pages (including this one): 1
Date: 8/3/1993

Dear Professor Marks,
as a co-chair of ICANN'94 (International Neural Network Conference organized by the European Neural Network Society), that will be take place in Sorrento (Italy) on May 26-29, 1994, I am asking your permission to name IEEE-NNC as a cooperating society.
With a separate mail, Prof. Caianiello and I will invite you to join the program committee.

Best regards
Pietro C. Morasso



1/11/93

Dr. W.S. Gan
IEEE Singapore Section
200 Jalan Sultan
#11-03 Textile Center
Singapore 0719

Dear Dr.Gan:

I write at the direction of the *IEEE* Neural Networks Council to transmit instructions to you for two changes to your announcements and calls for papers for the ICNNASP, to be held in Singapore August 17-20, 1993. The conference is not "sponsored" by the *IEEE*; rather, it is "co-sponsored" by us. And further, the approved title of the conference does not contain the letters "*IEEE*". We hereby request that you immediately make these two changes in all published materials pertaining to the conference:

1. Change "sponsor" to "co-sponsor": and
2. Delete "*IEEE*" from the title of the conference.

I assume you will act immediately to make these adjustments; I look forward to your earliest acknowledgment.

Most Cordially,

Jim Bezdek, Chair
NNC Meetings Committee

cc : Russ Eberhart, President, *IEEE* NNC

MPEANGH@NUSVM, 11:10 AM 1/20/93..., NNASP'93**1**

Date: Wed, 20 Jan 93 11:10:10 SST
From: MPEANGH@NUSVM
Subject: NNASP'93
To: JBEZDEK@UWF
Cc: RCE@RTI.RTI.ORG, MPEANGH@NUSVM

20 January 1993

Dr. James Bezdek
Chair, NNC Meetings Committee

Dear Dr. Bezdek,

Thank you for your fax of 11 January 1993 addressed to Dr. W.S. Gan which I just received today from our IEEE Singapore Section Office. Sorry for the delay in replying to your fax.

On behalf of the organizing committee for International Conference on Neural Network Applications in Signal Processing (NNASP'93), I would like to apologize for the misunderstanding in the two points you mentioned in your fax. The following adjustments will be made:

1. "sponsor" changed to "co-sponsor"
2. "IEEE" deleted from the title of the conference as you requested. All future correspondences, publicity information, advance program, etc. will bear the changes.

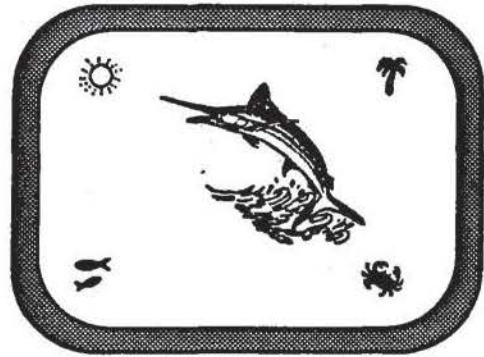
Sincerely yours,

-Marcelo
(Marcelo H. Ang Jr., Publicity Chair, NNASP'93)

cc: Dr. W.S. Gan, Chairman of Organizing Committee
Jasmine, IEEE Office
Dr. Russ Eberhart, President IEEE NNC

Printed for jbezdek@ai.uwf.edu

1



2/6/93

Dr. Alexander Galushkin, Director
Russian Academy of Sciences
Scientific Centre of Neurocomputers
125252
Moscow, Russia

Dear Dr. Galushkin:

First, please excuse the tardiness of my reply to your earlier letter; I have been traveling extensively, and I have just now been able to address this matter. I write at the direction of the *IEEE* Neural Networks Council to respond to your letters concerning your proposed IJCNN '94, to be held in Moscow in May, 1994. First, the *IEEE* has terminated its affiliation with the INNS, and no longer co-sponsors "joint" conferences - our conferences are now called ICNN's. We cannot dictate your use of the term IJCNN, but we do feel that much confusion can be avoided if, as you proceed, you choose a slightly different name. Second, the NNC has already scheduled the ICNN for 1994, 1995 and 1996. The 1994 ICNN is to be held in Orlando, FL at the *IEEE* World Congress on Intelligent Systems; the 1995 ICNN is scheduled for Japan; and the 1996 ICNN will be held in Washington, D.C. Although not yet finalized, the probable location of the 1997 ICNN is San Diego, CA. Thus, the first real window of opportunity for an ICNN in Moscow appears to be 1998.

Consequently, we are not in a position to accept your gracious offer about a major conference in 1994, nor can we offer you more than possible "cooperating status" for a conference, workshop or forum. If this is attractive to you, please contact me requesting it, and send me full details on the meeting so that our committee can properly consider your request. If you have further questions, please contact me by FAX or email at :

James C. Bezdek
Computer Science
University of West Florida
Pensacola, FL 32514
email : jbezdek@ai.uwf.edu
FAX : (904) 474-3023

Most Cordially,

Jim Bezdek
Jim Bezdek, Chair
NNC Meetings Committee

cc : Russ Eberhart, President, *IEEE* NNC



2/7/93

Dr. Akira Ishimaru
Dept. of Electrical Engineering
University of Washington
Seattle, WA 98195

Dear Dr. Ishimaru:

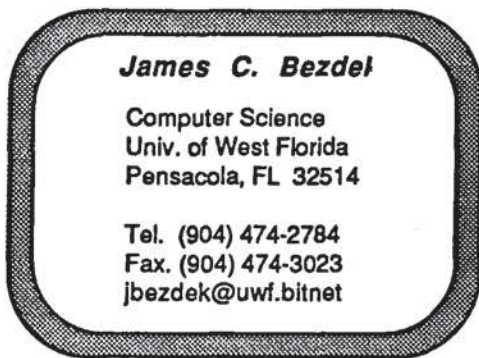
I write at the direction of the *IEEE* Neural Networks Council to advise you that the council has voted to withdraw the designation "in cooperation with" from the Forum on *Applications of Artificial Neural Network Technology to Electromagnetic Inverse Problems and Remote Sensing* that you had proposed to be held March 15-18, 1993 in Seattle, Wa. The reason for withdrawal of the indicated status is that, to our knowledge, there has been no significant activity since the proposal was submitted that would indicate your desire to conduct the forum. The *IEEE* must carefully guard its professional sponsorship of such events, and we have no indication that you intend to hold the forum.

I assume you will act immediately to remove the designation alluded to from any and all subsequent announcements, calls for papers, etc. that may be issued in connection with the proposed forum; I look forward to your earliest acknowledgment.

Most Cordially,

Jim Bezdek, Chair
NNC Meetings Committee

cc : Russ Eberhart, President, *IEEE* NNC



2/10/93

Teck Seng Low
Comm. Int'l. Assoc. PTE Ltd
44/46 Tanjong Pagar Road
Singapore 0208

Tel (65) 2262838

Dear Teck Seng Low :

I write at the direction of the *IEEE* Neural Networks Council to request that you furnish me with a written breakdown of the item called "Hotel accomodation" in the amount of \$149,477.92 that is shown in your income and expenditure statement for the Singapore IJCNN that is replicated on p. 81 of the NNC ADCOM handbook dated Dec. 6, 1992.

I assume you will act immediately ; I look forward to your earliest reply.

Most Cordially,

Jim Bezdek, Chair
NNC Meetings Committee

cc : Russ Eberhart, President, *IEEE* NNC

95k
 SIGGRAPH
 10k
 200
 \$183ex
 Outside
 IEEE
 ACM
 Hit
 Mark
 Status
 1 month

VRAIS 93 budget

Revised: March 1, 1993

INCOME

| | |
|---------------------|---------------------|
| Registration income | \$181,400 |
| Publications | \$13,650 |
| Exhibits | \$28,000 |
| Tutorials | \$44,500 |
| Advance | \$45,000 |
| TOTAL | \$312,550 OK |

Totals to-date

| |
|--------------------|
| \$0 |
| \$0 |
| \$0 |
| \$0 |
| \$20,000 |
| \$20,000 OK |

EXPENSE

| | |
|----------------|---------------------|
| Promotion | <u>\$89,000</u> |
| Pubs | \$43,000 |
| Exhibits | \$16,500 |
| Social Funct | \$13,000 |
| Administration | \$55,200 |
| All other | \$41,000 |
| Advance Repay | \$45,000 |
| TOTAL | \$302,700 OK |

Totals to-date

| |
|--------------------|
| \$17,497 |
| \$0 |
| \$0 |
| \$0 |
| \$130 |
| \$245 |
| \$0 |
| \$17,872 OK |

Surplus (LOSS) \$9,850
 Registration Fees

2127.86

| IEEE Members | CAT | quantity | fee | budget |
|---------------|-----|----------|------------|-------------|
| before 5/1/93 | 1 | 80 @ | \$275.00 = | \$22,000.00 |
| before 7/1/93 | 2 | 80 @ | \$325.00 = | \$26,000.00 |
| at conference | 3 | 80 @ | \$400.00 = | \$32,000.00 |
| | | | | |
| Non-members | | quantity | fee | budget |
| before 5/1/93 | 4 | 60 @ | \$320.00 = | \$19,200.00 |
| before 7/1/93 | 5 | 60 @ | \$375.00 = | \$22,500.00 |
| at conference | 6 | 100 @ | \$450.00 = | \$45,000.00 |
| | | | | |
| Students | | quantity | fee | budget |
| before 5/1/93 | 7 | 40 @ | \$80.00 = | \$3,200.00 |
| before 7/1/93 | 8 | 40 @ | \$95.00 = | \$3,800.00 |
| at conference | 9 | 70 @ | \$110.00 = | \$7,700.00 |

Total: 610 \$181,400

Conference Publication Sales

| | | | | |
|-------------------|----|-------|------------|-------------|
| To IEEE Members | 10 | 12 @ | \$75.00 = | \$900.00 |
| To non-members | 11 | 12 @ | \$125.00 = | \$1,500.00 |
| To IEEE Headquart | 12 | 450 @ | \$25.00 = | \$11,250.00 |

Total: 474 \$13,650

Exhibits

| | | | |
|------------------|----|-------------------|-------------|
| Booth/Publishers | 13 | 5 @ \$600.00 = | \$3,000.00 |
| Booth/All other | 14 | 25 @ \$1,000.00 = | \$25,000.00 |
| <hr/> | | | |
| Total: | 30 | | \$28,000 |

All Others

| | | | |
|----------------------|-----|-----------------|-------------|
| Tutorial one | 15 | 50 @ \$200.00 = | \$10,000.00 |
| Tutorial two | 16 | 50 @ \$300.00 = | \$15,000.00 |
| Tutorial three | 17 | 50 @ \$390.00 = | \$19,500.00 |
| <hr/> | | | |
| Total From Tutorials | 150 | | \$44,500 |

| | | | |
|-------------------|----|--|----------|
| Seed Money Advanc | 18 | | \$45,000 |
|-------------------|----|--|----------|

| | | | |
|---------------|--|--|-----------|
| TOTAL INCOME: | | | \$312,550 |
|---------------|--|--|-----------|

BUDGET:

Promotion

| | | | | |
|-------------------|---|----------|-------------|---------|
| Flyer prod | 1 | \$20,000 | Expenses td | 9271.56 |
| Program Prod & pr | 2 | \$7,000 | Expenses td | 0 |
| Mailing lists | 3 | \$7,000 | Expenses td | 0 |
| Postage | 4 | \$28,000 | Expenses td | 7741 |
| Mailing hs | 5 | \$7,000 | Expenses td | 0 |
| Advert | 6 | \$20,000 | Expenses td | 484.87 |
| Other/Souvenir | 7 | \$0 | Expenses td | 0 |

| | | | | |
|-----------------|--|--|--|----------|
| Total Promotion | | | | \$89,000 |
|-----------------|--|--|--|----------|

| | | | | |
|--------------------|--|--|--|----------|
| Total Spent so far | | | | \$17,497 |
|--------------------|--|--|--|----------|

Conference Publication

| | | | | |
|-------------------|----|----------|-------------|---|
| Proceedings print | 8 | \$40,000 | Expenses td | 0 |
| CDROM Pubs | 9 | \$0 | Expenses td | 0 |
| Comm w/ authors | 10 | \$3,000 | Expenses td | 0 |

| | | | | |
|--------|--|--|--|----------|
| Total: | | | | \$43,000 |
|--------|--|--|--|----------|

| | | | | |
|---------------------|--|--|--|---|
| Total spent so far: | | | | 0 |
|---------------------|--|--|--|---|

Exhibits

| | | | | |
|------------------|----|----------|-------------|---|
| Signage | 11 | \$1,500 | Expenses td | 0 |
| Brochure | 12 | \$1,000 | Expenses td | 0 |
| Furniture | 13 | \$3,000 | Expenses td | 0 |
| Equipment Rental | 14 | \$10,000 | Expenses td | 0 |
| Communication | 15 | \$1,000 | Expenses td | 0 |

Total \$16,500

Total spent so far: 0

Social Functions

| | | | | |
|-------------------|----|----------|-------------|---|
| Dinner, Reception | 16 | \$13,000 | Expenses td | 0 |
|-------------------|----|----------|-------------|---|

Total: \$13,000

Total spent so far: 0

Administration

| | | | | |
|-------------------|----|----------|-------------|--------|
| Insurance and bon | 17 | \$100 | Expenses td | 0 |
| Security and guar | 18 | \$3,000 | Expenses td | 0 |
| A/V Rental | 19 | \$13,000 | Expenses td | 0 |
| Management fee | 20 | \$30,000 | Expenses td | 0 |
| Office equip rent | 21 | \$2,000 | Expenses td | 0 |
| Forms/tickets/sta | 22 | \$1,300 | Expenses td | 0 |
| Posters, signs, b | 23 | \$2,000 | Expenses td | 0 |
| Telephone, fax, c | 24 | \$1,200 | Expenses td | 130.07 |
| Registration cler | 25 | \$2,000 | Expenses td | 0 |
| Registration supp | 26 | \$600 | Expenses td | 0 |

Total: \$55,200

Total spent so far: 130.07

All other

| | | | | |
|-------------------|----|----------|-------------|--------|
| Tutorial signage | 27 | \$0 | Expenses td | 0 |
| Tutorial Notebook | 28 | \$0 | Expenses td | 0 |
| Tutorial A/V | 29 | \$0 | Expenses td | 0 |
| Tutorial honorari | 30 | \$18,000 | Expenses td | 0 |
| Audit | 31 | \$4,000 | Expenses td | 0 |
| Invited Speakers | 32 | \$9,000 | Expenses td | 0 |
| Committee exp | 33 | \$5,000 | Expenses td | 244.64 |
| Chairman's Fund | 34 | \$5,000 | Expenses td | 0 |

| | | |
|---------------------|--------|-----------|
| Total: | | \$41,000 |
| Total spent so far: | 244.64 | |
| Loan repayment 35 | | \$45,000 |
| Grand Total Outlays | | \$302,700 |

NOTES

We are in the process of soliciting \$5000 seed money from the IEEE Seattle Section in exchange for a 5% share of any conference surplus.

The Virtual Worlds Consortium will be donating \$10,000 for the VRAIS '93 Plenary Symposium. It will be used to support travel for the Symposium speakers.



IEEE

TRANSACTIONS ON NEURAL NETWORKS
NEURAL NETWORKS COUNCIL

- 1: Awards
0: Electrotechnical
- Hornik
1: Video Review Editor
2: Paper of Year
3: Philip's Hall letter
- backlogged
4: Ad (Schneiderman)
- move

A.E.

MOVE

Robert J. Marks II, Ph.D.
Editor-in-Chief
Transactions on Neural Networks

March 10, 1993

TNN Editor's Report to AdCom

PLEASE REPLY TO:
University of Washington
Department of Electrical Engineering
c/o 1131 199th Street S.W., Suite N
Lynnwood, WA 98036-7138 USA
Tel: (206) 543-6990
Fax: (206) 543-3842
E-mail: marks@milton.u.washington.edu

ITEM 1: PAGE INCREASE

Background: Based on the assumption that the NNC would launch a separate journal in computational intelligence, a page increase of 10% was approved for 1994 with approval of an additional 10% over run.¶

Motion: Ad Com ok^{to} 20% increase
in pages & cost

ITEM 2: BACKLOG

Background: On March 9, 1993, Michelle Paulin reported that, excluding special issues, the Transactions is currently backlogged 74 manuscripts. The acceptance rate for the Transactions is between a fourth and a third.

ITEM 3: BUDGET

I was chartered President Eberhart chartered me with assessing the finances of the IEEE TNN. The following figures are from the 1992 Pre-Closing Audit for the Period ending 12-31-1992, IEEE Financial Statement, pp. 232-238

INCOME

| | |
|------------------------|--------------|
| Micro Fiche | 0.1 |
| Advertising | |
| external | 3.1 |
| internal | 2.0 |
| Subscriptions | |
| Non Member# | 44.7 |
| All Transacti | 49.5 |
| Hard Copy | 21.7 |
| Airfreight Charged | |
| Subscriber | 1.4 |
| Members | 0.6 |
| Voluntary Page Charges | 21.5 |
| TOTAL DIRECT REVENUE | 144.6 |
| + SOCIETY TRANSFER+ | 80.7 |
| TOTAL REVENUE | 225.3 |

1990

1800 Paper
More Tuff

¶ The Treasurer will receive a budget draft from IEEE in early April. Transactions changes are to be made in the revision of those submitted to IEEE. Increases in subscription rates greater than 20% must be justified and approved by TAB Finance. The contact person is Tanya Skrinnikov at IEEE. A resource at IEEE in putting together pub budgets is Lou Moore (908 562 3959, l.moore@ieee.org). Good justification reasons include an increase in pages and the competition. A rule of thumb suggested by IEEE is that our product be 70% of that of the competition.

Tanya Skrinnikov says that this is quite a large number!

OUTGO

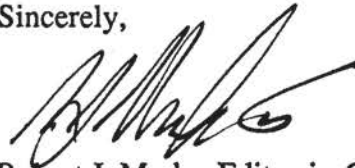
| | |
|-----------------------|-------|
| Salesmen Commission | 0.3 |
| Postage & Air Freight | 24.9 |
| Pub Admin Charge | 2.8 |
| Editor | 3.3 |
| Editorial HQ | 43.6* |
| Editorial Reimbursed | 24.1 |
| Composition | 61.8† |
| Indexing | 2.9 |
| Microfiche | 0.8 |
| Text Paper | 17.8 |
| Camera Work | 2.4 |
| Press Work | 14.9 |
| Binding | 2.5 |
| Mailing Prt | 2.3 |
| Label Preparation | 3.2 |
| Subscription Handling | 11.9 |
| Vol Pg Charge Exp | 4.6 |

TOTAL EXPENSE 212.9

CREDITS 225.3
DEBITS (212.9)

1992 TNN surplus 12.4

Sincerely,



Robert J. Marks, Editor-in-Chief
IEEE Transactions on Neural Networks

+ Income from member Transactions sales are credited to the member Societies and are then transferred to the NNC.

* The page charges in 1992 were \$42 per page. Michelle Paulin, the Managing Editor at IEEE Headquarters in NY, is also responsible for the **IEEE Transactions on Professional Communications** and the **IEEE Transactions on Vehicular Technology**.

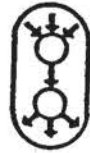
† The fee from the composition houses runs about \$65 to \$70 per page. Due to an increase in electronic submissions, IEEE will be changing this practice. Electronic submission to the IEEE TNN now exceeds 90%. Electronic versions are submitted on floppies. (E-mail submissions are being investigated). Michelle Paulin estimates that well over 70% of these are used significantly in the composition process. The IEEE TNN is not rewarded directly for electronic submission. It is, rather, spread across the a number of Transactions. The IEEE Computer Society is charged less, but Lou Moore at IEEE indicates the spread will be identical in 1995.

June 28-30
San Juan



IEEE

TRANSACTIONS ON NEURAL NETWORKS
NEURAL NETWORKS COUNCIL



Robert J. Marks II, Ph.D.
Editor-in-Chief

PLEASE REPLY TO:
University of Washington
Department of Electrical Engineering
c/o 1131 199th Street S.W., Suite N
Lynnwood, WA 98036-7138 USA
Tel: (206) 543-6990
Fax: (206) 543-3842
E-mail: marks@milton.u.washington.edu

March 1, 1993

Russell C. Eberhart, President
IEEE Neural Networks Council
Research Triangle Institute
P.O. Box 12194
Research Triangle Park, NC 27709

Dear President Eberhart,

I request NNC AdCom consent for appointment of the IEEE TNN Letters Editor

Dr. Kurt Hornik, Letters Editor
IEEE Transactions on Neural Networks
Institut für Statistik und Wahrscheinlichkeitstheorie
Technische Universität Wien
Wiedner Hauptstr. 8-10/1071
A-1040 Wien, Austria
[+43] (1) 588 01 4542 (Office)
[+43] (1) 504 1498 (FAX)
hornik@neuro.tuwien.ac.at,

Video Review Editor,

Edgar Sanchez-Sinencio (1991-92)
Dept. of Electrical Engineering
Texas A&M University
College Station, Texas 77843
(409) 845 7498
FAX (409) 845 7161
sanchez@ee.tamu.edu

and Associate Editors,

Professor Panos J. Antsaklis, Associate Editor
IEEE Transactions on Neural Networks
Department of Electrical Engineering
University of Notre Dame
Notre Dame, Indiana 46556

(continued =>)

Dr. C. Lee Giles, Associate Editor
IEEE Transactions on Neural Networks
NEC Research Institute
4 Independence Way
Princeton, NJ 08540
Internet: giles@research.nj.nec.com
PHONE: (609) 951-2642
FAX: (609) 951-2482

Professor Bing J. Sheu, Associate Editor
IEEE Transactions on Neural Networks
University of Southern California
Department of Electrical Engineering, EP
Powell Hall, 604
Los Angeles, CA 90089-0271

Dr. Y.X. Zhong, Associate Editor
IEEE Transactions on Neural Networks
National Communications H-Tech Office
President Office
Univ of Posts & Telecom
Beijing 100088, China

Sincerely,

A handwritten signature in black ink, appearing to read 'R. Marks II', with a stylized flourish at the end.

Robert J. Marks, Editor-in-Chief
IEEE Transactions on Neural Networks

IEEE TRANSACTIONS ON FUZZY SYSTEMS

Neural Networks Council

Jim Bezdek, Editor
 Division of Computer Science
 The University of West Florida
 Pensacola, Florida, 32514 USA

2/6/93

Tel : (904) 474-2784
 Fax : (904) 474-3023
 jbezdek@al.uwf.edu
 jbezdek@uwf.bitnet

Dr. Russell Eberhart, President
 IEEE Neural Networks Council
 Research Triangle Institute
 PO Box 12194
 Research Triangle Park, NC 27709

Dear Russ:

Attached is a list of the advisory and editorial boards of the IEEE Transactions on Fuzzy Systems, which I hereby submit to NNC's ADCOM for approval.

Most sincerely, *Jim Bezdek*
 Jim Bezdek, Editor, TFS

| Associate Editors, Technical | Phone, Fax and Email | Topical Areas |
|---|--|--|
| Joe Barone Loki Software Liberty Corner, NJ 07938 | phone: (201) 580-4839 fax: : email : | Entropy - Measures of Fuzziness Regression, NN, ES, AI Approximate Reasoning Clustering |
| Hamid R. Berenji Mail Stop: 269-2 NASA Ames Research Center Moffett Field, CA 94035 | phone: (415) 604-6070 fax: : (415) 604-3594 email : berenji@ptolemy.arc.nasa.gov | Control, NN, ES/AI |
| James Buckley Mathematics Department University of Alabama Birmingham, AL 35294-2060 | phone: (205) 934-2154 fax: : (205) 934-9025 email : buckley@math.uab.edu | approximate reasoning fuzzy control, nn, programming decision theory economics, finance, OR |
| Krzysztof J. Cios Electrical Engineering The University of Toledo Toledo, Ohio 43606 | phone: (419) 537-2450 fax : (419) 537-2805 email : fac1765@uoft01.bitnet | PR, NN, ML, ES medical / industrial applications pattern recognition |
| Didier Dubois Langages et Sys. Informatiques Universite Paul Sabatier 118 Route de Narbonne 31062 Toulouse Cedex, FRANCE | phone: (33) 61556331 fax : (33) 61556239 email : dubois@irit.fr | ES/AI, Reasoning, Possibility |

THE INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS, INC.

| | | |
|--|---|---|
| <p>Richard Hathaway Math and Computer Science Dept. Georgia Southern University Statesboro, GA 30460</p> | <p>phone: (912) 681-5619 fax : email : somathr@gsu.cs.gasou.edu</p> | <p>PR, Numerical methods, Optimizaion</p> |
| <p>James Keller Electrical and Computer Engr. University of Missouri Columbia, MO 65211</p> | <p>phone: (314) 882-7339 fax : (314) 882-0397 email : ecejkm@mizzou1.missouri.edu</p> | <p>CV/IP, PR</p> |
| <p>Robert Marks Electrical Engineering Dept University of Washington Seattle, WA 98195</p> | <p>phone: fax : email : marks@blake.u.washington.edu</p> | <p>NN</p> |
| <p>Rudolph Kruse Tech Univ. Braunschweig Bultenweg 74/75 W-3300 Braunschweig, Germany</p> | <p>phone: 49.531.391.3289 fax : 49.531.391.5936 email : kruse@ibr.cs.tu.bs.de</p> | <p>Statistics, Reasoning, Control</p> |
| <p>Hung T. Nguyen Mathematics Department New Mexico State University Las Cruces, NM 88003</p> | <p>phone: fax : email :</p> | <p>Mathematics, Measure and Integration, Probability and Statistics, Control, Approximation Theory</p> |
| <p>Nikhil R. Pal Elec. and Comm. Sciences Indian Statistical Institute 203 BT Road, Calcutta 700035, India</p> | <p>phone: fax : 00.91.33.282070/IF.272 email : sankarlisical@ncst.ernet.in</p> | <p>CV/IP, Uncertainty measures, NN</p> |
| <p>Witold Pedrycz EE Department U. of Manitoba Winnipeg, Manitoba Canada R3T 2N2</p> | <p>phone: fax : email : pedrycz@ee.umanitoba.ca</p> | <p>PR, Control, Models, NN Relational equations</p> |
| <p>Fred Petry Computer Science Dept. Tulane University New Orleans, LA 70118</p> | <p>phone : (504) 865-5840 fax : (504) 862-2 du</p> | <p>IR, DB, GA, KA</p> |
| <p>Henri Prade Langages et Sys. Informatiques Universite Paul Sabatier 118 Route de Narbonne 31062 Toulouse Cedex, FRANCE</p> | <p>phone: (33)61-55-65-7 fax : (33) 61556239 email : prade@irit.fr</p> | <p>AI, ES, Reasoning, Possibility</p> |

| | | |
|--|--|---|
| Enrique Ruspini AI Center SRI International 333 Ravenswood Avenue Menlo Park, CA 94025 | phone: (415) 859-2314 fax : email : ruspini@ai.sri.com | ES/AI, PR, FS, FL, Robotics, Constraint Propagation, Control, Reasoning |
| Richard Tong Advanced Decision Systems 1500 Plymouth Road Mountain View, CA 94043 | phone: (415) 960-7429 fax : (415) 960-7500 email : rtong@ads.com | IR, DB, Multimedia, Control |
| Yuki Watanabe Computer Science Dept., M/S 3175 Univ. of North Carolina Chapel Hill, NC 27514 | phone: (919) 962-1817 fax : (919) 962-1799 email : yuki@cs.unc.edu | Hardware, VLSI, Models |
| Tom Whalen Decision Sciences Department Georgia State University Atlanta, GA 30303 | phone: (404) 651-4070 fax : email : qmdtwh@gsuvm1.bitnet | Decision theory , ES/AI, Fuzzy Logic |
| John Yen Computer Science Dept. Texas A&M University College Station, TX 77843 | phone: (409) 845-5466 fax : (409) 847-8578 email : yen@cs.tamu.edu | Control, Reasoning, Systems |

IEEE TRANSACTIONS ON FUZZY SYSTEMS

Neural Networks Council

Jim Bezdek, Editor
 Division of Computer Science
 The University of West Florida
 Pensacola, Florida, 32514 USA

2/8/93

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March 27 1993

IEEE Neural Networks

MAY 1992 Newsletter Actual Expenses

| Account Name | Amount | Description |
|---------------------------|--------------------|------------------------------------|
| Press Work-Printing | \$100.00 | In house composition |
| Press Work-Printing | 1,045.17 | Chernay Printing Inc. Inv. #83665 |
| Label Preparation | 396.88 | Internal workorder for labels |
| Air Freight | 15.00 | Federal Express Inv. #463810829 |
| 2nd Class-Edit US | 664.09 | Internal mailroom workorder |
| 2nd Class-Edit Non US | 449.12 | Internal mailroom workorder |
| 2nd Class-Edit Non US | 3,116.03 | European Book Service Inv. #920459 |
| Mailing | 620.29 | Internal mailroom workorder |
| Text Paper | 721.55 | Chernay Printing Inv. #83665 |
| Freight & other Carriage | 142.90 | Chernay Printing Inv. #83665 |
| Subtotal | \$7,271.03 | |
| Manag. Ed services | 2,480 | |
| Prepress service | 279. | |
| Misc Tel and post | 113 | |
| Pub Admin fee??? | 100 | |
| TOTAL | \$10,143.03 | |

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MAR 15 '93 12:17 BOWMAN GRAY MRI RESEARCH GROUP

P.2

San Francisco AdCom
March 27 1993

IEEE Neural Networks

NEWSLETTER EXPENSE ANALYSIS

Actual May '92 Extrapolated From IEEE Report (k)*
(From Receipts)

| | | | |
|----------------------|---------------|---------------|----------------------|
| Press work printing | 1145 | 4580 | 5.1 |
| Label Prep | 396 | 1587 | 1.6 |
| Air Freight | 15 | 60 | First Class US 2.9** |
| US postage | 664 | 2656 | 2nd Class US 2.8 |
| Non us postage | 449 | 1796 | 2nd Class NonUS 6.4 |
| Non us postage | 3116 | 12464 | 5.1 |
| Mailing | 620 | 2481 | 3.5 |
| Text paper | 721 | 2886 | 2.4 |
| Freight | 142 | 571 | .7 |
| IEEE Pub Admin Fee | 100 | 400 | not listed |
| Managing Ed | 2480 | 9920 | 7.5 |
| PrePress Service | 279 | 1116 | 2.6 |
| Misc Tel and postage | 113 | 452 | .4 |
| Travel | | | .4 |
| Total | 10,240 | 40,960 | Total 36.3 |

*IEEE financial statements do not reflect expenses incurred but not yet paid. Some 1992 charges will appear on 1993 statements.

**This should have been charged to RNNS.

611



Ron Holesman ~~←~~ Stamatios.



TRANSACTIONS ON NEURAL NETWORKS
NEURAL NETWORKS COUNCIL



Robert J. Marks II
Editor-in-Chief

PLEASE REPLY TO:
University of Washington
Department of Electrical Engineering
c/o 1131 199th Street S.W., Suite N
Lynnwood, WA 98036-7138 USA

March 17, 1993

NNC AdCom
c/o Russell Eberhart, President
IEEE Neural Networks Council
Research Triangle Institute
P.O. Box 12194
Research Triangle Park, NC 27709
fax: 919-541-8746

Background: Annually, the IEEE Neural Networks Council can award the *outstanding paper award* for the IEEE Transactions on Neural Networks. (See attached description).

Motion 1: The Council recommends that

R.M. Sanner and J-J E Slotine, "Gaussian Networks for Direct Adaptive Control", IEEE Trans. on Neural Networks, 3(6):837-863, November 1992.

receive the *outstanding paper award* for the IEEE Transactions on Neural Networks for 1992.†

Motion 2: The Council recommends that

- 1) E.B. Baum, "Neural Net Algorithms That Learn in Polynomial Time from Examples and Queries", IEEE Trans. on Neural Networks, 2(1):5-19, January 1991.
- 2) E.D. Sontag, "Feedback Stabilization Using Two-Hidden-Layer Nets", IEEE Trans. on Neural Networks, 3(6):981-990, November 1992.

receive honorable mention for *outstanding paper award* for the IEEE Transactions on Neural Networks for 1992. A certificate will be awarded.

† The Treasurer is chartered with assuring the authors receive their award check:
Drs. Jean-Jaques E. Slotine and R.M. Sanner
Nonlinear Systems Laboratory
MIT
Cambridge, Mass 02139
FAX 617 258 5802

Discussion: From the Outstanding Paper Nomination Committee:

(Hard copy version of this correspondence mailed to Dr. Brad Dickinson, Awards Chair)
 From lemmon@maddog.ece.nd.edu Fri Feb 26 06:49:54 1993
 Received: from bashful.u.washington.edu by carson.u.washington.edu
 (5.65/UW-NDC Revision: 2.22) id AA26975; Fri, 26 Feb 93 06:49:44 -0800
 Received: from nd.edu by bashful.u.washington.edu
 (5.65/UW-NDC Revision: 2.22) id AA14638; Fri, 26 Feb 93 06:49:42 -0800
 Received: from maddog.ece.nd.edu by nd.edu id aa02.26-094912:11989;
 26 Feb 93 9:49 EST
 Received: by maddog.ece.nd.edu (4.1/1.34)
 id AA22699; Fri, 26 Feb 93 09:48:58 EST
 Date: Fri, 26 Feb 93 09:48:58 EST
 From: Michael Lemmon <Michael.D.Lemmon.1@nd.edu>
 Message-Id: <9302261448.AA22699@maddog.ece.nd.edu>
 To: antsakli@saturn.ece.nd.edu, barnard@ford.ce.up.ac.za,
 bradley@ivy.princeton.edu, marks@u.washington.edu
 Subject: Neural Network Transactions Best Paper Award (1991-1992)
 Status: RO

Professor Dickinson,

Enclosed you'll find the recommendations for this year's (1991 and 1992) "outstanding paper award" (IEEE Transactions on Neural Networks).

The selection was made by a committee consisting of myself, Etienne Barnard (U. Pretoria, OGI), and Panos Antsaklis (Notre Dame). Below you will find the ranked list of the committee's recommendations. There was unanimous agreement on the first selection. While Prof. Antsaklis and myself supported the following ranked list, it should be noted that Prof. Barnard suggested reversing the ranking of Baum's and Sontag's paper.

I'll be sending a copy of this recommendation via regular mail to you, Prof Marks, President Eberhart, and the committee members.

-
- 1) R.M. Sanner and J-J E Slotine, "Gaussian Networks for Direct Adaptive Control", IEEE Trans. on Neural Networks, 3(6):837-863, November 1992.

One of the burgeoning application areas for neural networks is in adaptive control of nonlinear systems. To date, there are relatively few results which go beyond empirical studies.

This paper is important for it provides one of the few analytical results on the convergence properties of adaptive neurocontrollers. The paper presents a method for using Gaussian Radial Basis Function Networks for direct adaptive control. The paper provides an excellent mixture of analysis validated by empirical results. The work clearly points out one way in which neural networks can be integrated with variable structure systems to provide adaptive control of nonlinear systems.

-
- 2) E.B. Baum, "Neural Net Algorithms That Learn in Polynomial Time from Examples and Queries", *IEEE Trans. on Neural Networks*, 2(1):5-19, January 1991.

This paper is significant in its extension of query-based Perceptron training procedures to multilayer networks. The extension is done in a way which yields polynomial-time learning and is constructive in the sense of suggesting specific methods for constructing the hidden layer. The importance of this work is that it provides an alternative to the more popular backpropagation training algorithm; an alternative whose learning time scales well with problem complexity and may therefore provide a valuable learning technique for highly complex classification and systems identification problems.

-
- 3) E.D. Sontag, "Feedback Stabilization Using Two-Hidden-Layer Nets", *IEEE Trans. on Neural Networks*, 3(6):981-990, November 1992.

This work is significant in that it provides insight into the important and growing area of neurocontrol. While most applications of neural nets rely on the approximation capabilities of networks with a single hidden layer, this paper proves in a clear and rigorous manner that feedback stabilization generally requires networks with two hidden layers.

Sincerely

Michael Lemmon
Dept. of Electrical Engineering
University of Notre Dame
Notre Dame, IN 46556

(219)-631-8309
lemmon@maddog.ece.nd.edu

Sincerely,



Robert J. Marks, Editor-in-Chief
IEEE Transactions on Neural Networks

IEEE Neural Networks Council Award Description

- Name of Award:** IEEE Transactions on Neural Networks Outstanding Paper Award
- Description:** An annual award for the outstanding paper published in the IEEE Transactions on Neural Networks in the previous two-year period.
- Administration:** By the Awards Committee of the IEEE Neural Networks Council. Nominations will be solicited from the Editor of the Transactions, Associate Editors, Executive Advisory Board, and Transactions Editorial Board, and from readers of the Transactions. The Awards Committee will judge the nominated papers and submit a recommendation to the Executive Committee of the Neural Networks Council Administrative Committee for final approval.
- Eligibility:** All papers published in the IEEE Transactions on Neural Networks are eligible. For 1991, papers published in 1990 (Volume 1) will be eligible. For 1992 and thereafter, papers published in the previous two years will be eligible. A paper selected for the award is not eligible for a second award in the following year.
- Award:** The author of the selected paper will receive a cash award of \$500 and a certificate. For a paper with multiple authors, the cash award will be shared by the coauthors and each coauthor will receive a certificate.
- Funds:** Funding will be from the non-dues revenue of the IEEE Neural Networks Council.
- Presentation/Publicity:** The award will normally be presented at the International Joint Conference on Neural Networks (IJCNN). The award winner will be announced in the IEEE Transactions on Neural Networks.
- Term:** The award will be administered as described here for a period of 5 years. Renewal of the award under the same or modified procedures is possible, depending on the five year experience with the award.

**IEEE**THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.
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March 10, 1993

DIRECT NUMBER (212) 705-

Prof. Robert J. Marks, II
Department of Electrical Engineering
University of Washington
Seattle, WA 98195

Dear Prof. Marks:

It is once again time for me to issue a general "state-of-the-Transactions" report in an effort to keep you fully informed. Heretofore, I've had the pleasurable task of bragging about my staff's unique and remarkable accomplishments as we dove in the uncharted waters of electronic publishing. This time, however, while the staff still deserves accolades, I must share with you a less joyful reality.

As some of you are painfully aware, we have hit our first tidal wave, and consequently some schedules have slipped badly. The main cause is directly related to the loss of two of our most productive people, one an Associate Editor and the other an electronic production wiz; at a time we are trying to increase staff by at least two. In other words, we are four people short.

The good news is that we have identified and are using a number of fall-back remedies, among them outside disk converters and freelance editors. The tough part is that the real improvement cannot be realized overnight, because even with all the outside help we can enlist, all electronic pages ultimately have to flow through the in-house staff.

We are using every means possible to expedite the hiring process. Everyone is putting in extra time and effort, and we continue to improve our internal processes. The staff recently formed a small quality team that came up with more than two dozen shortcuts to simplify onscreen editing.

This letter is not intended to depress or panic, but to ask for your support and understanding. We fully expect to be totally back on track before the June 4 Panel of Editors meeting in New York, when we look forward to seeing all of you.

Cordially,

Phyllis Hall
Staff Executive, Publications

PH/jv

cc: H.M. Wood



TRANSACTIONS ON NEURAL NETWORKS
NEURAL NETWORKS COUNCIL



Robert J. Marks II
Editor-in-Chief

PLEASE REPLY TO:
University of Washington
Department of Electrical Engineering
c/o 1131 199th Street S.W., Suite N
Lynnwood, WA 98036-7138 USA

March 17, 1993

NNC AdCom
c/o Russell Eberhart, President
IEEE Neural Networks Council
Research Triangle Institute
P.O. Box 12194
Research Triangle Park, NC 27709
fax: 919-541-8746

Motion: NNC AdCom hereby approves the attached contract at the **LIMITED PROGRAM** level.

Action if approved: Contract will be signed and mailed to Susan Schneiderman at IEEE in Piscataway by President Eberhart.

Sincerely,

Robert J. Marks, Editor-in-Chief
IEEE Transactions on Neural Networks

IEEE MAGAZINES AND NEWSLETTERS



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03/17/93

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TO:

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MAR 16, 1993 10:50AM #587 P.04

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MAR 16, 1993 10:58PM

#587 P.05

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- _____ III. We want to set up a LIMITED PROGRAM. We will set up our own sales, rate cards, etc., but we would like the IEEE advertising sales department to handle all the administrative work at 10% commission fee on net sales.

NAME _____

PUBLICATION _____

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DATE _____

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IEEE NEURAL NETWORKS COUNCIL

STANDARDS COMMITTEE

**AN INVITATION TO PARTICIPATE
IN FORMULATING STANDARDS RELATING TO**

ARTIFICIAL NEURAL NETWORKS

FUZZY SYSTEMS

VIRTUAL REALITY

IEEE-ICNN 93 1993 International Conference on Neural Networks

IEEE-ICNN 93 1993 International Conference on Fuzzy Systems

San Francisco

March 28 - April 1, 1993

THE NNC STANDARDS COMMITTEE

Now in its third year of operation, the Standards Committee of the Neural Networks Council (NNC) invites your participation in its working groups and other activities. IEEE is one of the primary standards organizations in the United States and is currently maintaining over 1500 active standards in the electrical and electronic areas. The IEEE Standards Board has established formal procedures for the initiation of standards projects via Project Authorization Requests (PAR), balloting to approve standards, and the eventual publication of standards. The NNC is represented on the IEEE Standards Board and has made standardization one of its principal activities.

At the present three active Working Groups are developing standards in the following areas:

Definition of Terms for Artificial Neural Networks
Guidelines for the Evaluation of Artificial Neural Networks
Hardware and Software Interfaces for Artificial Neural Networks

Additional Working Groups interested in Fuzzy Systems and in Virtual Reality are in the process of formation. These groups interact by e-mail and strive to meet once or twice per year at major conferences. The Standards Committee is composed of the heads of these working groups and some additional members appointed by the president of the NNC.

In the view of the Standards Committee, it is never too early in the life cycle of an emerging technology to commence standardizing activities. The purpose of these efforts is not to attempt to "freeze" developments but rather to enable diverse groups and individuals to begin to collaborate effectively toward a common goal. Experience in many areas has shown that serious development efforts and the investment of substantial funds often take place only after there has been a measure of agreement on the terms, the symbols and the paradigms to be employed. The standards now being generated are intended to assist in defining such common ground and to stimulate further innovations.

The NNC Standards Committee Working Group on ANN Glossary and Symbols

The IEEE-NNC Standards Committee Working Group on Glossary and Symbols has filed a PAR and is in the process of refining the original set of terms. The objective is to create an authoritative compendium of all terms and symbols in current use relating to artificial neural networks. The definitions have been obtained from a number of sources. Controversial definitions have been noted and opinions solicited by email and personal conversation. At the IEEE-ICNN 93/IEEE-FUZZ 93 Conference sessions, additional viewpoints will be collected and assessed. Following this meeting, a revised set of terms will be distributed for further consideration.

The Paradigms Ad Hoc Working Group has been incorporated as a subset of the glossary committee. An appendix giving detailed definitions of paradigms will be constructed as a supplement to the current glossary. In cooperation with the performance committee, the paradigms group will continue to sponsor a paper and programming contest. Paradigm comparisons are of interest. The example sets supplied by the performance committee will also be used for the contest. The examples will be constructed by Robert Shelton. E. Tzanakou will help review contest entries and Mary Lou Padgett, Glossary Chair, will administer the competition. For details about the glossary PAR and/or competitions, contact Mary Lou Padgett.

The NCC Standards Committee Working Group on ANN Performance Evaluation Methodology

In support of the objective to provide a means of evaluation for feed-forward neural networks in forward propagation as well as learning mode, a collection of sample problems will be available by anonymous file transfer protocol (ftp). A problem will consist of

1. Data -- a file of input/output (I/O) pairs. Each I/O pair consisting of a list of floating point numbers of the form: (x[0] x[1]... x[NUMBER INPUTS-1] y[0] y[1] ... y[NUMBER OUTPUTS-1]) where the floating point numbers x[1] are input values and y[1] are output values.
2. A network description providing the number of layers, number of nodes in each layer, and network topology.
3. A file containing weights which, when instantiated in the neural network described by 2, closely approximate the training data.

In addition to the problems, a "read.me" file will be provided which describes the details of file format for items 1-3 above. These format decisions are the subject of and will be determined by another IEEE neural network standards working group, but will initially be consistent with the

formats for NETS, a NASA feed-forward neural network simulator.

The intent of making this set of benchmarks publicly available is to provide sample problems for assessing the speed and fidelity of various implementations of feed-forward neural networks with fixed or adaptive coefficients. The weights included in each benchmark will be results of running a "standard" back-propagation learning algorithm on the training data for a specified number of cycles, and are provided for the purpose of comparison. There is no claim that these problems provided for the stated purposes or of assessment of speed and accuracy of a specific neural network paradigm, are in any way especially well suited for determined the effectiveness of other algorithms, neural network or otherwise.

Contact the chair. Robert Shelton for further information.

The NNC Standards Committee Working Group on ANN Interfaces

The Neural Networks Council Standards Committee has been encouraging the formation of a working group for standards in the area of hardware and software interfaces since IJCNN Baltimore. At that meeting we had a series of discussions and a working group was formed. In this short note the rationale for the existence of our group will be explained as well as solicitation of new ideas and opinions. Please contact the chairman at the address below with your feedback.

In order to develop a standard there must be (A) clearly defined need or problem that a standard would help solve or there must be (B) perception of some kind of future confusion/need that would be headed off if the standard were adopted. In both cases the motivation is fundamentally economic. i.e.. when people perceive that lack of a standard is or will be costly. Type A standards usually evolve when the industry has gotten ahead of itself. Good examples are ISA bus and the VME standard both of which were written down long after millions of dollars worth of incompatible hardware had already been built. Type B standards are not fundamentally different from type A. They just involve a little more forward thinking and more new design rather than clarification of current practice. They tend to be somewhat preemptive. Good examples are the EISA, Futurebus+ and the SCI standards. These standards were evolved in anticipation of future industry needs with broad industry support. Type A standards often evolve by generalizing and 'cleaning up' proprietary designs (AT bus, Versabus). Type B standards often evolve in Committee with engineers hard pressed to keep their prototypes up to date with the evolving spec (Futurebus+, SCI). Once it becomes clear that there will be a forthcoming standard of either type economic pressure comes to bear on the industry participants to align with it.

In reality the distinction between type A and B standards is semantic. There are other taxonomies, and there is a spectrum of variation rather than any hard dichotomy. All standards with any real content tend to evolve with changing A and B emphases. Standards help reduce confusion by 1) promoting uniform use of terminology. 2) clarifying existing practices and their

realms of applicability, and/or 3) prescribing methods and techniques for new product development. Our working group is looking at how all three of these techniques can be employed to solve problems and head off future confusion.

Due to the evolution of the field and the prevailing computing paradigm, it was rather easy to quickly identify problems in the software area that could directly benefit from standards. In particular, people have already gained broad experience trying to train neural networks on a variety of host simulation systems. They have already been faced with the frustrations of trying to port training data from one host platform to another. They have experience dealing with the problems that derive from not having a standard, and opinions abound about what needs to be done. This was the first well defined project that our working group identified. Through the leadership of Dr. Hal Brown, the subgroup chair on software interface standards, progress continues. Some C code has been written and tests are underway that will lead in the near future, if not to a PAR (Projectt Authorization Request), then to a working document to start discussion at FUZZ-IEEE in San Francisco on March 28.

The hardware interface area does not have the benefit of broad industry experience in developing large neural network hardware systems. Most hardware accelerators to date have been comprised of one or a few accelerator boards based upon existing industry platforms such as VME or ISA. The chips used in those accelerators range widely across analog neural network chips, all digital RISC or DSP simulators, and hybrid IC's with digital I/O and analog processing. Almost no one has tried to build a large system out of neural networkk ICs from many different vendors such as to expose incompatibilities of signal levels, protocol, and communication architecture at either the chip or the board level. The scalability of some chips to larger systems is more obvious than with some others. However, the overall system communication architecture for neural 'messages' remains an abyss in need of funded research.

Those of us interested in this area have been grappling with how to tackle this as a standards activity. There is no industry practice to standardize upon and clean up. There is not a wealth of experience to push the frustration-momentum level to the trigger point that precipitates wide acknowledgement of a need for a standard. There are very few well developed ideas in the research literature suggesting how to handle the neural communications and interface issue although there are no doubt some worthy of evaluation. We have entertained the possibility of writing up a set of guidelines on how to embed neural computing systems in existing industry platforms such as VME, Futurebus+ and SCI. However, work on that has yet to get underway. In summary, we welcome comments on whether, and if so, what the hardware interface standards task should be. To have tangible results, the standards process must be driven by a ground swell of broad interest. Without that ground swell this kind of work is more appropriate to a research forum where individual contributors can achieve their goals unhampered by committee processes, or more appropriate to industry product development - both of which will eventually lead to the proper level of friction that triggers demand for a standard.

Please send all comments to Steve Deiss, Chair Interface Standards Working Group.

The NNC Standards Committee Working Group on Virtual Reality

This committee is being formed in the Neural Networks Council to encourage the development of commercial products in the field of VR and to facilitate the development of a robust market for such products. Research people and potential developers of VR products are encouraged to get involved for the benefit of themselves and the industry as a whole. The beginning stages will involve establishing a glossary of terminology. All aspects of hardware and software standards will be considered.

Next October we anticipate a one-day appendum to the VRAIS conference in Seattle, and the summer of 1994 the University of Colorado at Colorado Springs will host a conference dedicated entirely to the formulation of VR standards. This will be a working committee, consisting of anyone who is interested in participating. Every attempt will be made to coordinate efforts with other groups which might be involved in VR standards as well. The committee of the IEEE which will have voting power to formalize the standards will be appointed by the IEEE Neural Networks Council to consider recommendations from this committee and others it deems appropriate.

For further information, please contact Prof. Richard Blade.

The NNC Standards Committee Working Group on Fuzzy Systems

The IEEE-NNC Standards Committee is in the process of forming a working group on fuzzy systems. The initial task of this group will be generating a glossary of terms and examples. For further information, please contact the chair, Hamid Berenji.

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ANN Glossary and Symbols Chair
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berenji@ptolemy.arc.nasa.gov

*** CONTESTS AND STANDARDS ***

**SCSC93/BOSTON * SESC93/HUNTSVILLE
SIMTEC93*WNN93*FNN93/SAN FRANCISCO**

**Simulation Papers in All Categories: ACADEMIC, INDUSTRIAL, GOVERNMENT
Best Paper Awards: ALL TOPICS - ALL 3 CONFERENCES**

- 1993 ADI HARVEY ECKENRODE STUDENT PAPER AWARD \$500 SCSC/BOSTON
- 1993 SESC BEST PAPER AWARD \$500
- 1993 NASA/IEEE/SCS STANDARDS COMPETITIONS

- * PERFORMANCE MEASURES FOR NEURAL NETWORKS
FEEDFORWARD BACKPROPAGATION USING IEEE-NNC STANDARDS PROBLEMS
- * COMPARATIVE ALGORITHM PERFORMANCE IN APPLICATIONS
NEURAL NETWORKS * FUZZY SYSTEMS * GENETIC ALGORITHMS * COMBINATIONS *
VISUALIZATION * FORMAL PAPER AND SOFTWARE DEMONSTRATION REVIEWS

FORMAL PAPERS: WNN WINNERS WILL BE SUBMITTED TO SIMULATION AND/OR TRANSACTIONS FOR FURTHER REVIEW, REVISION AND POSSIBLE PUBLICATION. ALL WINNERS WILL BE PUBLISHED IN THE WNN PROCEEDINGS. REVIEW BY NASA, IEEE, INNS, SPIE AND SCS REFEREES.

SOFTWARE DEMONSTRATIONS: LIVE NASA REVIEW ON SITE IN SAN FRANCISCO.
STUDENT PROJECTS * SBIR DEMOS * EVERYONE WELCOME

*** AWARDS ***

ALL WNN STANDARDS WINNERS WILL RECEIVE A COPY OF THE NASA/NETS SOFTWARE AND AN ESCORTED TOUR OF APPROPRIATE FACILITIES AND LABORATORIES AT NASA/JSC AND NASA/AMES (TRANSPORTATION NOT INCLUDED).

**FOR CONTEST RULES AND DETAILS
CONTACT: MARY LOU PADGETT, VPNA, AUBURN UNIVERSITY
1165 OWENS RD., AUBURN, AL 36830. (205) 821-2472/3488
FAX: (205) 844-1809
EMAIL: MPADGETT@ENG.AUBURN.EDU**

*** CHAOS AND FRACTALS TECHNICAL ACTIVITY COMMITTEE ***

Holger M. Jaenisch, Chair
Nichols Research Corp.
4040 S. Memorail Pkwy.
Huntsville, AL 35802
(205) 883-1140

Ned E. Clapp, Jr., Vice-Chair
ORNL
P.O.Box 2008, MS 6010
Oak Ridge, TN 37831-6010
(615) 574-0417

The Chaos and Fractals TAC is an outgrowth of SESC92/Pensacola, chaired by Keith Klukis and Van Sullivan of Martin Marietta. The key TAC organizers submitted outstanding papers and presented tutorials. The 1992 SESC ADI Eckenrode Student Paper Competition winner was "Chaos and Fractal Algorithms Applied to Signal Processing" by J. W. Handley, H. M. Jaenisch, C. A. Bjork, L. T. Richardson and R. T. Carruth, which appeared in the January, 1993 issue of Simulation. Contact the chairs to participate. Columnists, authors, and interested beginners are needed. Organizational meetings will take place at all three conferences.

*** REGIONAL ACTIVITIES ***

Winning Regional Activities are abundant. SESC had a small but high caliber conference in Pensacola, and plans another in Huntsville in October of 1993. Joe Gauthier will be there to give advice about ACSL programs, and serve as Program Chair. The Southwestern Region is basking in the glory of SimTec92 and pitching in to help SCS on many other fronts. The next really big event will be sponsored by the Western Simulation Council, which has recently had two outstanding meetings at Asilomar and Pt. Mugu. Regional Chair Barokh Khoshnevis, USC; SimTec General Chair Ted Lambert; and, Program Chair Martin Dost are working hard and need your support. Colleagues from USC, UCLA (Walter Karplus), UC Berkeley (Lofti Zadeh) and Cal State Chico (Ralph Huntsinger and friends) are all helping in this tremendous joint effort. The Eastern Council is about to host SCSC93 in Boston, which should be its usual smashing success. Many volunteers are still needed to help with all aspects of this meeting. Check the Calendar of Events for Conference Contacts. It is time for the Midwestern Region to host a nice meeting, perhaps at Wright Patterson AFB. Suggestions? Volunteers? Let us know your needs and interests!

James C. Bezdek

Computer Science
Univ. of West Florida
Pensacola, FL 32514

Tel. (904) 474-2784
Fax. (904) 474-3023
jbezdek@uwf.bitnet



2/8/93

To: Russ Eberhart, President, IEEE NNC
Presidents or representatives of the 15 IEEE NNC Member societies
Peri Sensi, Director, IEEE conference Services
Irv Engleson, IEEE headquarters

Re: FUZZ-IEEE, 1992 : Final Report

Attached please find the final audit, officers, program, closure of bank account statement and other general information for FUZZ-IEEE 1992. The conference was pretty successful - thanks for giving me the opportunity to chair it.

Most cordially,


Jim Bezdek

FUZZ-IEEE, 1992 : Final Report

This is a brief report on the *First IEEE International Conference on Fuzzy Systems (FUZZ-IEEE '92)*, which was held in San Diego on March 8-12, 1992. The conference was sponsored by the IEEE Neural Networks Council (NNC), the first organ of the IEEE which has shown a concentrated interest in fuzzy systems since their inception in 1965. Thus, it seems appropriate thank the NNC (in particular, Russ Eberhart, Bob Marks, Pat Simpson, Toshio Fukuda and Mike Roth) for their interest, enthusiasm and support for the conference. The conference was commissioned in January, 1991, and hence, was put together in a very short timeframe. Although there were a few glitches due to this, everything ran smoothly, due in no small part to the able and diligent work of the program co-chairs, Profs. Didier Dubois and Henri Prade of the Universite Paul Sabatier. Local arrangements were handled by the local section of the IEEE, managed by Jim Bussert; his gang contributed greatly to the pleasant atmosphere at the conference.

There were 512 registrants at FUZZ-IEEE '92, which is about 150 more than the largest conferences (the International Fuzzy Systems Association (IFSA) meetings) devoted to fuzzy systems have ever had in attendance prior to this meeting. A majority of attendees were affiliated with American industry, as opposed to the more usual representation of academics that are found at fuzzy sets meetings. This speaks well for the timing of the IEEE, which represents, in

Registration statistics for participants are given in Table 2. The distribution in time is bimodal, with strong peaks centered about 90 days and 15 days prior to the conference.

Table 2. DISTRIBUTION OF REGISTRANTS : FUZZ-IEEE, 1992

| | Fee | Up to 11/1/91 | Up to 12/1/91 | 11/2/91 1/31/92 | 12/2/91 1/31/92 | After 1/31/92 | Total |
|----------------------------|-------|------------------|------------------|--------------------|--------------------|------------------|------------|
| Student | \$ 50 | 7 | 4 | | | | 11 |
| | 75 | | | 25 | | | 25 |
| | 95 | | | | | 17 | 17 |
| Member | \$195 | 57 | 2 | | | | 59 |
| Member | \$295 | | 8 | 134 | | | 142 |
| Non Member | \$295 | 2 | | | 10 | | 12 |
| Non Member | \$345 | | | | 44 | | 44 |
| Member | \$390 | | | | | 73 | 73 |
| Non Member | \$395 | | | 32 | | 46 | 78 |
| Non Member | \$490 | | | | | 24 | 24 |
| One Day Reg. Member | \$125 | 2 | | | | 7 | 9 |
| One Day Reg. Non Member | \$175 | | | | | 15 | 15 |
| No Charge | | | | | | 3 | 3 |
| | | 68 | 14 | 191 | 54 | 185 | 512 |

Five 4 hour tutorials were given at the conference, as itemized in Table 3.

Table 3. TUTORIAL STATISTICS : FUZZ-IEEE, 1992

| Title | Speaker | # of Attendees |
|---------------------------------|-----------|----------------|
| Basic Concepts of Fuzzy Control | Berenji | 90 |
| Fuzzy Sets & Logic | Ruspini | 54 |
| Engineering Applications | Sugeno | 92 |
| Hardware & Software Tools | Togai | 27 |
| Fuzzy Information Systems | Bonissone | 39 |
| | | <u>302</u> |

There were a number of other activities associated with this meeting that were a direct result of NNC sponsorship. For example, a special issue of the *IEEE Transactions on Neural Networks* appeared in September, 1992 entitled *Fuzzy Logic and Neural Networks in Pattern Recognition and Control* that contained 19 full and brief papers that were

[The body of the document contains extremely faint, illegible text, likely bleed-through from the reverse side of the page. The text is too light to transcribe accurately.]

presented at the conference. Talks on all of these papers were given at the conference in San Diego, but by explicit design and arrangement, none of them were published in the proceedings, even in abbreviated form (the program of the conference gave the forthcoming special issue as a reference for these talks). Every paper in this issue thus had the benefit of full and complete refereeing. In view of recent developments in the commercial arena, the *IEEE* in general and the NNC in particular should be congratulated on their vision for recognizing the timeliness of a special issue that contained papers on fuzzy sets methods, CNN methods, and the integration of the two.

A second activity arising from and tied to these events concerns the new flagship journal sponsored by the NNC, namely, the *IEEE Transactions on Fuzzy Systems*, which is scheduled to begin in February, 1993. The NNC felt that a special issue of TNN devoted to synthesis of fuzzy logic and CNNs would be a useful way to introduce readers of TNN to some of the many currents of cross fertilization between the two fields that are presently afoot. Indeed, this issue of TNN will reach readers just a few months before the inauguration of the *IEEE Transactions on Fuzzy Systems*. The first issue of the *IEEE Transactions on Fuzzy Systems* will be mailed free of charge to all subscribers of the *IEEE Transactions on Neural Networks*.

A third activity coordinated with FUZZ-IEEE was NNC sponsorship of an *IEEE Press* milestone papers book entitled *Fuzzy Models for Pattern Recognition*, edited by J.C. Bezdek and S. K. Pal that was published in March, 1992 and released for sale at FUZZ-IEEE '92. This book collects 51 key papers that trace the evolution of fuzzy pattern recognition from Zadeh's original paper to the present. The last chapter concerns itself with the integration of fuzzy logic with computational neural networks, a topic much in evidence at FUZZ-IEEE '92.

All in all, the conference and activities associated with it have been hectic, exciting and rewarding. I think I can speak for the entire fuzzy community in saying that we welcome further opportunities to interact with the NNC and its constituents.

Jim Bezdek, General Chair
FUZZ-IEEE '92

LSU

Department of Computer Science

LOUISIANA STATE UNIVERSITY AND AGRICULTURAL AND MECHANICAL COLLEGE

BATON ROUGE · LOUISIANA · 70803-4020

(504) 388-1495 Fax: 388-1465
kraft@bit.csc.lsu.edu (Internet)

December 11, 1992

Dr. Roy Nutter
West Virginia University
821 Electrical Engineering
P.O. Box 6101
Morgantown, WV 26505

Dear Roy:

As the Treasurer of the FUZZ-IEEE '92 conference, which was held in San Diego last March, I am writing to send you a check for \$79,763.89. This, along with the \$10,000 sent previously, represents ninety percent of the profits. A check for \$9,973.76, representing the remaining ten percent of the profits were sent to James Bussert for the local (San Diego) IEEE Section.

If you have any questions about this, please feel free to contact me. Thank you and to the entire IEEE Neural Network Council for all of their cooperation and support for this conference.

Sincerely yours;

Donald H. Kraft
Professor

DHK/unix
Encl.
cc: Jim Bezdek
Nomi Feldman

LSU

Department of Computer Science

LOUISIANA STATE UNIVERSITY AND AGRICULTURAL AND MECHANICAL COLLEGE

BATON ROUGE · LOUISIANA · 70803-4020

(504) 388-1495 Fax: 388-1465
kraft@bit.csc.lsu.edu (Internet)

December 11, 1992

Mr. James Bussert
17205 Vendor Place
Poway, CA 92064

Dear Mr. Busert:

As the Treasurer of the FUZZ-IEEE '92 conference, which was held in San Diego last March, I am writing to send you a check for \$9,973.76. This represents ten percent of the profits from that conference which are to go to the local IEEE Section.

If you have any questions about this, please feel free to contact me. Please convey my thanks to the local section, and to Pat Simpson in particular, for all of their help with this conference.

Sincerely yours,

Donald H. Kraft
Professor

DHK/unix

Encl.

cc: Roy Nutter
Jim Bezdek
Nomi Feldman

THE INSTITUTE OF ELECTRICAL AND
ELECTRONICS ENGINEERS, INC.

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Moody, Nation and Smith
CERTIFIED PUBLIC ACCOUNTANTS
BUSINESS AND FINANCIAL CONSULTANTS
TAX ADVISORS

REPORT OF INDEPENDENT CERTIFIED PUBLIC ACCOUNTANTS

To the Committee of
The Institute of Electrical and Electronics Engineers, Inc.
IEEE International Conference on Fuzzy Systems (FUZZ - IEEE '92)

We have audited the accompanying statement of revenue and expenses and the allocation of net proceeds, on a cash basis, for the IEEE International Conference on Fuzzy Systems (FUZZ - IEEE '92) held on March 8 through 12, 1992. These financial statements are the responsibility of the Conference's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

As described in Note A, the accompanying statement of revenue and expenses and the allocation of net proceeds have been prepared on a cash basis; thus, revenue is recognized when received, rather than when earned, and expenses are recognized when paid, rather than when the obligations are incurred. Accordingly, the statement of revenue and expenses and the allocation of net proceeds are not intended to present the results of operations in conformity with generally accepted accounting principles.

In our opinion, the financial statements referred to above present fairly, in all material respects, the revenue and expenses and the allocation of net proceeds for The Institute of Electrical and Electronics Engineers, Inc., covering the period of March 8 through 12, 1992, on the basis of accounting described in Note A.

Moody, Nation & Smith
Certified Public Accountants

San Diego, California
August 4, 1992

The Institute of Electrical and Electronics Engineers, Inc.
STATEMENT OF REVENUE AND EXPENSES - CASH BASIS
For The IEEE International Conference
On Fuzzy Systems (FUZZ - IEEE '92)
Held March 8 through 12, 1992

| | |
|----------------|-------------------|
| Total Revenue | \$ 245,448 |
| Total Expenses | <u>142,708</u> |
| Net Proceeds | <u>\$ 102,740</u> |

The accompanying notes are an integral part of this financial statement.

The Institute of Electrical and Electronics Engineers, Inc.
ALLOCATION OF NET PROCEEDS - CASH BASIS
For The IEEE International Conference
On Fuzzy Systems (FUZZ - IEEE '92)
Held March 8 through 12, 1992

| | <u>Total</u> | <u>Less Previously Distributed</u> | <u>Balance to Distribute</u> |
|---|-------------------|--|----------------------------------|
| Net proceeds available for allocation (see Note C) | <u>\$ 102,740</u> | <u>\$ 10,000</u> | <u>\$ 92,740</u> |
| Allocation | | | |
| IEEE San Diego Sections | \$ 10,274 | \$ -0- | \$ 10,274 |
| IEEE Neural Network Council | <u>92,466</u> | <u>10,000</u> | <u>82,466</u> |
| | <u>\$ 102,740</u> | <u>\$ 10,000</u> | <u>\$ 92,740</u> |

The accompanying notes are an integral part of this financial statement.

The Institute of Electrical and Electronics Engineers, Inc.
NOTES TO STATEMENT OF REVENUE AND EXPENSES
AND ALLOCATION OF NET PROCEEDS
For The IEEE International Conference
On Fuzzy Systems (FUZZ - IEEE '92)
Held March 8 through 12, 1992

NOTE A - ORGANIZATION AND BASIS OF PRESENTATION

The Institute of Electrical and Electronics Engineers, Inc. (the IEEE) held the International Conference on Fuzzy Systems (FUZZ - IEEE '92) from March 8 through 12, 1992. The statement of revenue and expenses and the allocation of net proceeds for that conference have been prepared on the cash basis of accounting and not on an accrual basis, as would be required by generally accepted accounting principles. In order for the statements to be in accordance with generally accepted accounting principles, revenues would be recognized when earned, rather than when received, and expenses would be recognized when incurred, rather than when paid (see Note C).

NOTE B - INCOME TAX

No income tax has been provided on the net proceeds since this was an activity of the IEEE and the outcome will be incorporated into their operating results at year end.

NOTE C - CONTINGENCIES (UNAUDITED)

Below is a summary of the unaudited receivables and payable outstanding at August 4, 1992. Had these assets and liabilities been reflected as revenue and expenses in the accompanying statement of revenue and expenses, the net proceeds from the conference and tutorials section and allocation of net proceeds would have been as follows:

| | |
|------------------------------|------------------|
| Net proceeds - cash basis | \$ 102,740 |
| Receivables | |
| Conference registration fees | 590 |
| Tutorials | <u>300</u> |
| Total receivables | <u>890</u> |
| Payables | |
| Audit fees | <u>4,000</u> |
| Total payables | <u>4,000</u> |
| Net proceeds | <u>\$ 99,630</u> |

The Institute of Electrical and Electronics Engineers, Inc.
NOTES TO STATEMENT OF REVENUE AND EXPENSES
AND ALLOCATION OF NET PROCEEDS - Continued
For The IEEE International Conference
On Fuzzy Systems (FUZZ - IEEE '92)
Held March 8 through 12, 1992

NOTE C - CONTINGENCIES (UNAUDITED) - Continued

| | <u>Total</u> | <u>Less Previously Distributed</u> | <u>Balance to Distribute</u> |
|-----------------------------|------------------|--|----------------------------------|
| Allocation of net proceeds | | | |
| IEEE San Diego Section | \$ 9,963 | \$ -0- | \$ 9,963 |
| IEEE Neural Network Council | <u>89,667</u> | <u>10,000</u> | <u>79,667</u> |
| | <u>\$ 99,630</u> | <u>\$ 10,000</u> | <u>\$ 89,630</u> |



Moody, Nation and Smith

CERTIFIED PUBLIC ACCOUNTANTS
BUSINESS AND FINANCIAL CONSULTANTS
TAX ADVISORS

REPORT OF INDEPENDENT CERTIFIED PUBLIC ACCOUNTANTS
ON SUPPLEMENTAL INFORMATION

To the Committee of
The Institute of Electrical and Electronics Engineers, Inc.
IEEE International Conference on Fuzzy Systems (FUZZ - IEEE '92)

Our report on our audit of the statement of revenue and expenses and the allocation of net proceeds on a cash basis, for the IEEE International Conference on Fuzzy Systems (FUZZ - IEEE '92) held on March 8 through 12, 1992 appears on page three. That audit was made for the purpose of forming an opinion on the financial statements taken as a whole. The schedules of revenues and expenses - cash basis are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information has not been subjected to the auditing procedures applied in the audit of the basic financial statements, and, accordingly, we express no opinion on it.

Moody, Nation & Smith
Certified Public Accountants

San Diego, California
August 4, 1992

The Institute of Electrical and Electronics Engineers, Inc.
SCHEDULES OF REVENUE AND EXPENSES - CASH BASIS
For The IEEE International Conference
On Fuzzy Systems (FUZZ - IEEE '92)
Held March 8 through 12, 1992
(Unaudited)

REVENUE

| | |
|-------------------------------|--------------|
| Registration | \$ 150,731 |
| Tutorials | 55,695 |
| Proceedings and miscellaneous | 24,930 |
| Exhibits | 12,090 |
| Interest | <u>1,907</u> |

Total Revenue \$ 245,353

EXPENSES

| | |
|----------------|--------------|
| Administration | \$ 37,187 |
| Promotion | 33,999 |
| Hospitality | 25,549 |
| Printing | 20,649 |
| Tutorials | 13,992 |
| Honoraria | 7,000 |
| Exhibits | 3,133 |
| Miscellaneous | <u>1,199</u> |

Total expenses \$ 142,708

FEB 8 X 1003

Member Number
 90543

Social Security/Tax I.D.
 131-65-6633



POINT LOMA
 FEDERAL
 CREDIT UNION

9420 Farnham Street
 San Diego, CA 92123-1321
 (619) 495-3400

Statement Period

From 01JAN93 To 31JAN93

Page 1 of 1

DIVIDENDS OF \$10.00 OR MORE ARE REPORTED TO THE I.R.S. AT THE END OF EACH CALENDAR YEAR (EXCEPT I.R.A. ACCOUNTS)

CONSOLIDATE YOUR BILLS, MAKE ONE PAYMENT AND REDUCE THE AMOUNT OF INTEREST YOU PAY. ASK ABOUT OUR 2% REBATE. CALL 495-3400 FOR MORE INFORMATION.

THE ANNUAL MEETING IS SCHEDULED FOR MARCH 12, AT THE SAN DIEGO MARRIOTT FROM 6 P.M. TO 8 P.M. PLEASE CALL 495-3400 FOR RESERVATIONS.

INTERNATIONAL FUZZY SYSTEMS
 CONFERENCE FUZZ-IEEE 1992
 5665 OBERLIN DR STE#110
 SAN DIEGO CA 92121-1737



| TRANSACTION DATE | DESCRIPTION | PERIODIC FINANCE CHARGE | LATE PAYMENT CHARGE | DEBITS | CREDITS | BALANCE |
|------------------|-------------|-------------------------|---------------------|--------|---------|---------|
|------------------|-------------|-------------------------|---------------------|--------|---------|---------|

S9 SHARE A/C - FUZZ-IEEE 1992

(Joint with PATRICK K SIMPSON, JAMES BEZDEK, DON KRAFT)

| | | | | | | |
|-------|----------------------------------|--|--|----------|-------|----------|
| JAN1 | Previous Balance | | | | | 79911.40 |
| JAN14 | CHECK NO. 1098 | | | 79763.89 | | 147.51 |
| JAN28 | DIVIDEND-A/C CLOSED | | | | 61.41 | 208.92 |
| JAN28 | CHECK TO - NEURAL NETWORK CONSUL | | | 208.92 | | 0.00 |
| JAN31 | Closing Date...New Balance | | | | | 0.00 |

Dividend rate as of 31 JAN 93 was 2.000%

S9.1 SHARE A/C - IJCNN'92

(Joint with PATRICK K SIMPSON, PATRICK A SHOEMAKER)

| | | | | | | |
|--------|----------------------------|--|--|---------|--------|-----------|
| JAN1 | Previous Balance | | | | | 156645.19 |
| JAN8 | CHECK NO. 1205 | | | 817.50 | | 155827.69 |
| JAN14 | CHECK NO. 1206 | | | 1000.00 | | 154827.69 |
| JAN31# | DIVIDEND CREDIT | | | | 264.12 | 155091.81 |
| JAN31 | Closing Date...New Balance | | | | | 155091.81 |

Dividend rate as of 31 JAN 93 was 2.000%

LAST YEAR TO DATE DIVIDENDS

| | | | |
|-----------------|---------|------|------|
| S9 | 1199.18 | 0.00 | 0.00 |
| S9.1 | 2023.52 | 0.00 | 0.00 |
| Reported to IRS | 3222.70 | 0.00 | 0.00 |

B 056

1 SORRENTO VALLEY OFFICE
 11015 SORRENTO VALLEY RD.
 SAN DIEGO CA 92121

For Office Inquiries: (619) 230-4080
 For Teleservices: (619) 230-3800

IJCNN'92
 5665 OBERLIN DRIVESTE 110
 SAN DIEGO CA 92121

Account Number: 0560003935
 Type: BASIC BUSINESS CHECKING
 Statement From: DECEMBER 01, 1992
 Statement To: DECEMBER 31, 1992
 Page Number: 1

DURING THIS HOLIDAY SEASON, WE WOULD LIKE TO THANK YOU FOR ALLOWING US TO SERVE YOU IN 1992. WE WISH YOU A JOYOUS NEW YEAR AND LOOK FORWARD TO WORKING WITH YOU TO HELP MAKE IT A PROSPEROUS ONE.

CHECKS IN CHECK NUMBER SEQUENCE

| CHECK NUMBER | DATE POSTED | CHECK AMOUNT | CHECK NUMBER | DATE POSTED | CHECK AMOUNT | CHECK NUMBER | DATE POSTED | CHECK AMOUNT |
|--------------|-------------|--------------|--------------|-------------|--------------|--------------|-------------|--------------|
| 0 | 12/30 | 27,545.73 | | | | | | |

DEPOSIT ACTIVITY AND BALANCE

| DATE POSTED | CHECK/DEBIT TOTAL | DEPOSIT/CREDIT AMOUNT | DEPOSIT/CREDIT AMOUNT | DEPOSIT/CREDIT AMOUNT | BALANCE |
|-------------|-------------------|-----------------------|-----------------------|-----------------------|--------------|
| | | | | | \$ 27,545.73 |
| 12/31 | 27,545.73 | | | | 27,545.73 |
| 12/31 | | | | | 0.00 |

BUSINESS CHECKING SUMMARY

| | VOLUME | AMOUNT |
|-----------------------------------|--------|--------------|
| PREVIOUS STATEMENT ENDING BALANCE | | \$ 27,545.73 |
| DEPOSITS | 0 | \$ 0.00 |
| OTHER CREDITS | 0 | \$ 0.00 |
| CHECKS | 1 | \$ 27,545.73 |
| OTHER DEBITS | 0 | \$ 0.00 |
| SERVICE FEES AND CHARGES | | \$ 0.00 |
| CURRENT STATEMENT ENDING BALANCE | | \$ 0.00 |

* DENOTES A BREAK IN CHECK NUMBER SEQUENCE.
 V--VALUE DATED ITEM AMOUNT M--MISCELLANEOUS ITEM AMOUNT A COMPLETE DESCRIPTION OF THESE ITEMS APPEARS IN THE MISCELLANEOUS ACCOUNT ACTIVITY SECTION.
 PLEASE REVIEW THIS STATEMENT PROMPTLY AND REPORT ANY DISCREPANCIES. SEE THE BACK FOR INFORMATION REGARDING ERROR RESOLUTION.

MEMBER FDIC

**IEEE
INTERNATIONAL
CONFERENCE
ON FUZZY SYSTEMS**

March 8-12, 1992

**Town & Country Hotel
San Diego, California**



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A MESSAGE FROM THE GENERAL CHAIR

This proceedings and the presentations it represents are in some sense the culmination of 26 years of research and development about fuzzy sets and models. Indeed, years after Zadeh introduced the idea of fuzziness in 1965, many scientists and engineers felt that this was yet another new and bizarre technology with little to offer other than vacuous theories, uninteresting papers, and lots of graduate students! While (non-vacuous) fuzzy theories have indeed grown in almost all conceivable directions since 1965, the proof of any new technology ultimately lies in its utility for solving real problems. Models based on Zadeh's idea have emerged, in the last five years, as an enabling technology for many commercially successful products using fuzzy control and pattern recognition. Sophisticated applications to complex problems in many military and industrial domains are well on the way to becoming parts of fielded systems. This conference and its proceedings are the first evidence that the IEEE, the largest professional engineering society in the world, has recognized the significance of these developments. Readers of this proceedings will be able to confirm for themselves that fuzzy models have earned a place in the evolution of science and technology; this fact makes the rest of my introduction easy.

All that is left to do here is thank everyone who has helped make the conference and its proceedings a reality. The conference was put together very rapidly, and there have been, inevitably, some glitches in the processing of papers, assembly of the program, logistics of the meeting, and so on. On the whole, however, things proceeded smoothly, and this is directly attributable to the cooperation I received from a large number of helpful people. There are, of course, far too many people who had an active hand in this production for me to recognize each one individually. All that has been done would have been quite impossible without the able and professional help of the people on (and behind) the committees that appear following these pages. However, a few persons should be specifically mentioned. First, Bob Marks, Pat Simpson, Russ Eberhart and Toshio Fukuda, who had the vision to lead the IEEE Neural Networks Council towards their decision to sponsor this event at all. And I would be remiss if I did not single out for special thanks Didier Dubois and Henri Prade, who served as program co-chairs for the conference, and really did almost all of the hard work. Without them, none of this would have been possible. Finally, Nomi Feldman and her staff should be credited for accounting for many of the tedious details that go unnoticed when things work.

I hope you all enjoy this conference, and that you find this proceedings as valuable as I think it will be.

Jim Bezdek, General Chair
March, 1992

A MESSAGE FROM THE PROGRAM CHAIRS

It is a great honour for us to be in charge of the scientific program of the First IEEE International Conference on Fuzzy Systems. There is no doubt that this Conference has been possible because of the increasing amount of work applying fuzzy sets and possibility theory in a great variety of engineering fields, including automatic control and specialized hardware, artificial intelligence and knowledge-based systems, information and data base systems, decision analysis and operations research, neural networks, vision and image processing; and obviously, because of the great success recently encountered in industrial applications, especially in the control area in Japan.

We have tried to set up a program offering both good quality papers and an introduction to a variety of topics as far as possible. Certainly these ideal objectives are not completely reached. First, the present activity of researchers in the field, as testified to by the submitted papers, is naturally influenced by the practical success of fuzzy control methods and the present interest in neural networks. This explains the great number of sessions of this Conference devoted to these areas, as compared to other fields, where engineering applications exist but are less numerous and less publicized. Second, although the refereeing process was as rigorous as possible, some readers, depending on their background or interests, will find some papers less worth publishing than others. This is probably unavoidable. Anyway, a few words on the refereeing procedure are in order. 270 papers were regularly submitted and contributions were invited. The 185 papers which have been selected for the final program of the Conference fall into four categories: 5 invited plenary talks, 124 accepted papers, 38 invited papers and 18 papers accepted for publication in the forthcoming Special Issue on Fuzzy Logic of the IEEE Transactions on Neural Networks. These latter papers are presented at the Conference but are not reproduced in these Proceedings. The refereeing process for papers submitted to the conference was handled by the 16 members of the Executive Program Committee. They were responsible for finding reviewers and having each paper evaluated by two referees. This Committee was also in charge of the Invited Sessions. All the reviewers and especially the members of the Executive Program Committee (whose lists are appended) deserve acknowledgement and recognition for having done a difficult job within a very tight schedule. Lastly, due to severe time constraints (there were hardly 5 months between the submission deadline September 13, 1991, and the time of the conference) the papers are reproduced in the form in which they were submitted, without any possibility of making minor revisions which may have been recommended by the referees. Only the oral presentations can benefit of these comments.

We are particularly grateful to Mrs. Agathe Lorente for her excellent secretarial work.

D. Dubois - H. Prade

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(in charge of the reviewing process)

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The Institute of Electrical and Electronics Engineers, Inc.
ALLOCATION OF NET PROCEEDS - CASH BASIS
For The IEEE International Conference
On Fuzzy Systems (FUZZ - IEEE '92)
Held March 8 through 12, 1992

| | <u>Total</u> | <u>Less Previously Distributed</u> | <u>Balance to Distribute</u> |
|---|-------------------|--|----------------------------------|
| Net proceeds available for allocation (see Note C) | <u>\$ 102,740</u> | <u>\$ 10,000</u> | <u>\$ 92,740</u> |
| Allocation | | | |
| IEEE San Diego Sections | \$ 10,274 | \$ -0- | \$ 10,274 |
| IEEE Neural Network Council | <u>92,466</u> | <u>10,000</u> | <u>82,466</u> |
| | <u>\$ 102,740</u> | <u>\$ 10,000</u> | <u>\$ 92,740</u> |

The accompanying notes are an integral part of this financial statement.

The Institute of Electrical and Electronics Engineers, Inc.
NOTES TO STATEMENT OF REVENUE AND EXPENSES
AND ALLOCATION OF NET PROCEEDS
For The IEEE International Conference
On Fuzzy Systems (FUZZ - IEEE '92)
Held March 8 through 12, 1992

NOTE A - ORGANIZATION AND BASIS OF PRESENTATION

The Institute of Electrical and Electronics Engineers, Inc. (the IEEE) held the International Conference on Fuzzy Systems (FUZZ - IEEE '92) from March 8 through 12, 1992. The statement of revenue and expenses and the allocation of net proceeds for that conference have been prepared on the cash basis of accounting and not on an accrual basis, as would be required by generally accepted accounting principles. In order for the statements to be in accordance with generally accepted accounting principles, revenues would be recognized when earned, rather than when received, and expenses would be recognized when incurred, rather than when paid (see Note C).

NOTE B - INCOME TAX

No income tax has been provided on the net proceeds since this was an activity of the IEEE and the outcome will be incorporated into their operating results at year end.

NOTE C - CONTINGENCIES (UNAUDITED)

Below is a summary of the unaudited receivables and payable outstanding at August 4, 1992. Had these assets and liabilities been reflected as revenue and expenses in the accompanying statement of revenue and expenses, the net proceeds from the conference and tutorials section and allocation of net proceeds would have been as follows:

| | |
|------------------------------|------------------|
| Net proceeds - cash basis | \$ 102,740 |
| Receivables | |
| Conference registration fees | 590 |
| Tutorials | <u>300</u> |
| Total receivables | <u>890</u> |
| Payables | |
| Audit fees | <u>4,000</u> |
| Total payables | <u>4,000</u> |
| Net proceeds | <u>\$ 99,630</u> |

The Institute of Electrical and Electronics Engineers, Inc.
NOTES TO STATEMENT OF REVENUE AND EXPENSES
AND ALLOCATION OF NET PROCEEDS - Continued
For The IEEE International Conference
On Fuzzy Systems (FUZZ - IEEE '92)
Held March 8 through 12, 1992

NOTE C - CONTINGENCIES (UNAUDITED) - Continued

| | <u>Total</u> | <u>Less Previously Distributed</u> | <u>Balance to Distribute</u> |
|-----------------------------|------------------|--|----------------------------------|
| Allocation of net proceeds | | | |
| IEEE San Diego Section | \$ 9,963 | \$ -0- | \$ 9,963 |
| IEEE Neural Network Council | <u>89,667</u> | <u>10,000</u> | <u>79,667</u> |
| | <u>\$ 99,630</u> | <u>\$ 10,000</u> | <u>\$ 89,630</u> |



Moody, Nation and Smith

CERTIFIED PUBLIC ACCOUNTANTS
BUSINESS AND FINANCIAL CONSULTANTS
TAX ADVISORS

REPORT OF INDEPENDENT CERTIFIED PUBLIC ACCOUNTANTS
ON SUPPLEMENTAL INFORMATION

To the Committee of
The Institute of Electrical and Electronics Engineers, Inc.
IEEE International Conference on Fuzzy Systems (FUZZ - IEEE '92)

Our report on our audit of the statement of revenue and expenses and the allocation of net proceeds on a cash basis, for the IEEE International Conference on Fuzzy Systems (FUZZ - IEEE '92) held on March 8 through 12, 1992 appears on page three. That audit was made for the purpose of forming an opinion on the financial statements taken as a whole. The schedules of revenues and expenses - cash basis are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information has not been subjected to the auditing procedures applied in the audit of the basic financial statements, and, accordingly, we express no opinion on it.

Moody, Nation & Smith
Certified Public Accountants

San Diego, California
August 4, 1992

The Institute of Electrical and Electronics Engineers, Inc.
SCHEDULES OF REVENUE AND EXPENSES - CASH BASIS
For The IEEE International Conference
On Fuzzy Systems (FUZZ - IEEE '92)
Held March 8 through 12, 1992
(Unaudited)

REVENUE

| | |
|-------------------------------|-------------------|
| Registration | \$ 150,731 |
| Tutorials | 55,695 |
| Proceedings and miscellaneous | 24,930 |
| Exhibits | 12,090 |
| Interest | <u>1,907</u> |
| Total Revenue | <u>\$ 245,353</u> |

EXPENSES

| | |
|----------------|-------------------|
| Administration | \$ 37,187 |
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| Printing | 20,649 |
| Tutorials | 13,992 |
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A MESSAGE FROM THE GENERAL CHAIR

This proceedings and the presentations it represents are in some sense the culmination of 26 years of research and development about fuzzy sets and models. Indeed, years after Zadeh introduced the idea of fuzziness in 1965, many scientists and engineers felt that this was yet another new and bizarre technology with little to offer other than vacuous theories, uninteresting papers, and lots of graduate students! While (non-vacuous) fuzzy theories have indeed grown in almost all conceivable directions since 1965, the proof of any new technology ultimately lies in its utility for solving real problems. Models based on Zadeh's idea have emerged, in the last five years, as an enabling technology for many commercially successful products using fuzzy control and pattern recognition. Sophisticated applications to complex problems in many military and industrial domains are well on the way to becoming parts of fielded systems. This conference and its proceedings are the first evidence that the IEEE, the largest professional engineering society in the world, has recognized the significance of these developments. Readers of this proceedings will be able to confirm for themselves that fuzzy models have earned a place in the evolution of science and technology; this fact makes the rest of my introduction easy.

All that is left to do here is thank everyone who has helped make the conference and its proceedings a reality. The conference was put together very rapidly, and there have been, inevitably, some glitches in the processing of papers, assembly of the program, logistics of the meeting, and so on. On the whole, however, things proceeded smoothly, and this is directly attributable to the cooperation I received from a large number of helpful people. There are, of course, far too many people who had an active hand in this production for me to recognize each one individually. All that has been done would have been quite impossible without the able and professional help of the people on (and behind) the committees that appear following these pages. However, a few persons should be specifically mentioned. First, Bob Marks, Pat Simpson, Russ Eberhart and Toshio Fukuda, who had the vision to lead the IEEE Neural Networks Council towards their decision to sponsor this event at all. And I would be remiss if I did not single out for special thanks Didier Dubois and Henri Prade, who served as program co-chairs for the conference, and really did almost all of the hard work. Without them, none of this would have been possible. Finally, Nomi Feldman and her staff should be credited for accounting for many of the tedious details that go unnoticed when things work.

I hope you all enjoy this conference, and that you find this proceedings as valuable as I think it will be.

Jim Bezdek, General Chair
March, 1992

A MESSAGE FROM THE PROGRAM CHAIRS

It is a great honour for us to be in charge of the scientific program of the First IEEE International Conference on Fuzzy Systems. There is no doubt that this Conference has been possible because of the increasing amount of work applying fuzzy sets and possibility theory in a great variety of engineering fields, including automatic control and specialized hardware, artificial intelligence and knowledge-based systems, information and data base systems, decision analysis and operations research, neural networks, vision and image processing; and obviously, because of the great success recently encountered in industrial applications, especially in the control area in Japan.

We have tried to set up a program offering both good quality papers and an introduction to a variety of topics as far as possible. Certainly these ideal objectives are not completely reached. First, the present activity of researchers in the field, as testified to by the submitted papers, is naturally influenced by the practical success of fuzzy control methods and the present interest in neural networks. This explains the great number of sessions of this Conference devoted to these areas, as compared to other fields, where engineering applications exist but are less numerous and less publicized. Second, although the refereeing process was as rigorous as possible, some readers, depending on their background or interests, will find some papers less worth publishing than others. This is probably unavoidable. Anyway, a few words on the refereeing procedure are in order. 270 papers were regularly submitted and contributions were invited. The 185 papers which have been selected for the final program of the Conference fall into four categories: 5 invited plenary talks, 124 accepted papers, 38 invited papers and 18 papers accepted for publication in the forthcoming Special Issue on Fuzzy Logic of the IEEE Transactions on Neural Networks. These latter papers are presented at the Conference but are not reproduced in these Proceedings. The refereeing process for papers submitted to the conference was handled by the 16 members of the Executive Program Committee. They were responsible for finding reviewers and having each paper evaluated by two referees. This Committee was also in charge of the Invited Sessions. All the reviewers and especially the members of the Executive Program Committee (whose lists are appended) deserve acknowledgement and recognition for having done a difficult job within a very tight schedule. Lastly, due to severe time constraints (there were hardly 5 months between the submission deadline September 13, 1991, and the time of the conference) the papers are reproduced in the form in which they were submitted, without any possibility of making minor revisions which may have been recommended by the referees. Only the oral presentations can benefit of these comments.

We are particularly grateful to Mrs. Agathe Lorente for her excellent secretarial work.

D. Dubois - H. Prade

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IEEE NEURAL NETWORKS COUNCIL

AdCom Meeting
September 18, 1993

Sheraton Seattle Hotel
Seattle, Washington



1993 IEEE Neural Networks Council Document
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Seattle, Washington
September 18, 1993

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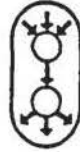
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TRANSACTIONS ON NEURAL NETWORKS
NEURAL NETWORKS COUNCIL



Robert J. Marks II
Editor-in-Chief

PLEASE REPLY TO:
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Lynnwood, WA 98036-7138 USA

August 1, 1993

TO: NNC AdCom
FROM: R.J. Marks II, Editor
Subject: *IEEE Transactions on Neural Networks*
Associate Editors

Motion: The NNC AdCom gives consent for the following Associate Editors of the IEEE Transactions on Neural Networks.

Dr. Gail A. Carpenter
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111 Cummington Street
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Department: (505) 277-2436
FAX: (505) 277-1439
email: tpc@chama.eece.unm.edu

Dr. David B. Fogel
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Professor Stephen Grossberg
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Sincerely,

Robert J. Marks, Editor-in-Chief
IEEE Transactions on Neural Networks



CHELSEA C. WHITE, III
SENIOR ASSOCIATE DEAN

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MEMORANDUM

TO: All IEEE Society and Council Presidents, Fernando Aldana, Linda Sue Boehmer, Don Bolle, John Morris, Kan Chen, Bill Harris (fax 409 845 9356), and the attached distribution.

FROM: Chelsea C. White, III, President *Chip*
IEEE Systems, Man, and Cybernetics Society
Department of Industrial and Operations Engineering
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Ann Arbor, Michigan 48109-2117
(313) 763 5464
c.white@ieee.org

DATE: 11 August 1993

SUBJECT: Formation of a TAB AdHoc Committee on IVHS

Just prior to the 30 June 1993 IEEE TAB meeting in San Juan, a brief organizational meeting, lead by Linda Sue Boehmer, was held to discuss what directions should be taken by the IEEE regarding IVHS (Intelligent Vehicle Highway Systems), an exciting new initiative that is focused on application of information science and technology to the surface transportation system. With the guidance of Fernando Aldana, it was decided to initially form an adhoc committee to discuss how next to proceed intellectually and organizationally. At the recommendation of those who attended the meeting, Don Bolle appointed me as chair of the adhoc committee.

The intent of this memorandum is to inform you of the initial directions of the Committee and to ask you, if there is sufficient interest within your society or council regarding IVHS, to appoint a representative to the Committee. Your representative, and any other IEEE member who wishes to participate, is invited to actively give guidance to this interdisciplinary initiative, which we feel intrinsically involves the interests and capabilities of many of our societies and councils. The initial actions that we have decided to take are as follows:

1. Begin the process of determining the most preferred form of IEEE involvement with IVHS by asking each society or council IVHS representative to determine and describe how his or her society can best contribute to an IEEE IVHS initiative. I request that this (0.5 to 1.5 page) description be sent to me by 15 September 1993.

Formation of a TAB AdHoc Committee
on IVHS

2

August 11, 1993

2. Initiate contact and coordination with IVHS America, the Transportation Research Board (TRB), and the editor of the new IVHS journal (Kan Chen, who coined the term IVHS and is a Fellow of the IEEE). It is felt that formal IEEE involvement in IVHS would be highly complementary to the involvement of other professional societies that currently have high profiles in the IVHS community. In this regard, I was invited by the committee chair, Bill Harris, to attend the North American World Congress Area Steering Committee meeting, held in Cambridge, MA on 23 July 1993. It is my understanding that the World Congress operates under the auspices of IVHS America. At that meeting, I was appointed to the Board of Directors of the IVHS World Congress for one year.
3. Have a workshop, attended by the society and council representatives, in order to begin to accomplish the following, and perhaps other, objectives:
 - Begin the development and description of the most appropriate role (vision, mission, goals, objectives, context, competencies, and constraints) for the IEEE in IVHS. This activity would be based on information returned from the society and council representatives and the discussions at the workshop.
 - Determine the appropriate organizational construct within the IEEE organizational structure for the envisioned IVHS concept.
 - Determine a strategy for enhanced interaction and intellectual cross-fertilization between the IEEE membership and those who are active in the IVHS community but who are not IEEE members.
 - Determine the costs and benefits of the envisioned IVHS concept and identify revenue sources.

This workshop is now planned for Wednesday, 29 September at the Detroit Metro Airport Marriott from 9:00am till 1:00pm; lunch will be included. All who plan on attending this meeting should inform my office by 15 September. Each society or council is requested to provide travel support to the workshop for its representative.

It is my intent to propose to the TAB the determined role and organizational structure which results from the workshop for its approval this November in Raleigh.

Comments on the plans described above would be deeply appreciated. I look forward to hearing from you and your IVHS representative and to working together to develop a truly exciting initiative with high potential.

Thank you.

Standing Committee Reports:

Awards Committee: Marks

(Awards advisory committee) Outstanding papers award charter for awards committee on page 6 based on recommendation of committee chair. Two motions for paper awards were submitted in writing as Attachment #1. Motions were seconded by Bezdek and approved by the council. Authors to share \$250 for each paper. Eberhart solicited interest and/or suggestions for new Awards Chair appointment.

Education Committee:

Eberhart appointed Karen Haines as Education Committee Chair. The Committee is responsible for student and faculty activities. Marks moved for AdCom confirmation for the appointments of both Haines and Sanchez-Sinencio to their respective committee chair positions. Motion passed.

Fellows Committee: Sanchez-Sinencio

Dr. Edgar Sanchez-Sinencio, newly appointed Chair of the Fellows Committee, requested assistance and suggestions from others that are involved in neural network and fuzzy logic technology/community, noting under-representation of engineers in these fields as Fellows.

Publications Committee: Kartalopolous

Referring to page 76 (of lilac book), reviewed expenses related to production of the newsletter. Rosilyn Snyder responded to additional questions in regards to the budget for the newsletter. Refer also to page 67, 68, and 69.

Kartopolous made motion as per page 120 of lilac book regarding advertisements for conferences and products sponsored totally by the NNC. It was noted that this motion was previously approved by the council.

A second motion was submitted as per page 8 of the supplement to the lilac book. There was discussion to clarify that \$200 setup fee was applied one time only. The motion was amended to apply approval of the motion to Option #1 found on page twelve of this supplement.

A third motion was submitted as Attachment #2 with regards to Transactions on NN surplus for a 20% page increase, and up to a 20% increase in subscription rates (from \$12 to \$14 for TNN, for example). Despite suggestions that the subscription be increased to \$20, the up-to-20%-increase motion passed unanimously. This item is to be included in the NNC budget for next year.

A fourth motion was submitted to task the President to write a letter to Pete Morley by April 20, in regards to book review issue. A motion for amendment was made to request action (the commencement of TAB appeals) within 4 weeks which was approved. Marks offered an additional amendment that after 60 days from the date of the letter the review would automatically be published unless TAB appeals had determined otherwise, which was also approved.

RIG Committee: Alan

RIG Chair, Rick Alan, submitted Attachment #3 as statement of the Regional Interest Group (RIG) Committee. Currently working to produce

broadcast quality video tape representing IEEE for distribution to public television directed at high school audience, not college, which is a general public introduction to NNC and IEEE. Aim is to get high school kids interested in engineering.

Meetings Committee: Bezdek

Submitted final report for FUZZ-IEEE '92. Made motions (#1) to accept revised VRAIS '93 budget as found on page 105 which was approved, (#2) the appointment of Ray Petrie as Chair of FUZZ IEEE '95 which was approved, and (#3) for the approval of the VRAIS '94 conference budget as submitted in Attachment #4. It was suggested that approval of VRAIS '94 budget be deferred until results of VRAIS '93 are known. Motion by Marks to table VRAIS '94 budget was approved.

Garcia made motion to advance \$20,000 to VRAIS '94 for publicity and committee expenses, seconded by Benjamin Wah. Nutter moved to amend the motion changing amount to \$10,000 which passed. Amended motion passed.

An additional motion (#4) was made from Meetings Committee to appoint Pat Simpson as Chairman of WCCI '97 which was passed (Simpson abstained).

A motion (#5) was made for approval of budget for 1997 World Congress on Computational Intelligence (Attachment #5), the council voting to table the motion until the Seattle meeting for further review. The same tabling action was approved for the budget for ICNN 1995 Perth.

WCCI '94 Orlando Budget

Was deferred to later discussion, since Robinson was still preparing budget.

FUZZ '95: Fukuda and Terano

Dr. Toshiro Terano encouraged participation in the FUZZ-IEEE/IFES '95 conference to be held in Yokohama, Japan, from March 20 to 24 as presented in Attachment #6. He submitted the budget as Attachment #7. He requested publicity assistance from the council.

Suggestion made by Bezdek that all budgets need to be submitted at least three weeks prior to meeting for inclusion into meeting workbook, so that budgets can be reviewed prior to meeting for intelligent voting. Additional suggestions were made that agenda and meeting minutes be sent out one month prior to next meeting by President.

ICNN '93 and FUZZ IEEE '93: Ruspini

A report was made on the good progress of the meeting. About 1,000 had pre-registered. (Final attendance was about 1,250.)

WWW Meetings, July & October 1993: Fukuda

A report was made on the good progress of the organizing committees.

Perth '95: Attikiouzel

Budget was submitted as Attachment #8 to be included in next meeting book. Approval of this budget has been tabled previously. Conference introduced by Yianni Attikiouzel from Australia, conference to take place in October, 1995, at Sheraton-Langley Hotel in Perth.

The following individuals either attended the IVHS organizational meeting that was held just prior to the 30 June 1993 TAB meeting, expressed interest in IVHS during or after this meeting, or already have been appointed as IVHS representative for their society or council:

Michael Bolton
E. Ryerson Case
Jim Crescenzi
Shaya Fainman
Robert L. French
Denos Gazis
Edward E. Hammer
Bahram Javidi
Ichiro Masaki
John E. May
Max E. Rumbaugh, Jr.
Helmut E. Schrank
William Spreitzer
Hal Waters - Appointed from NNC

*By letter to Chip White, I appointed
Hal Waters to the IVHS Committee.
R C Eberhart
8/15/93*

Minutes of the
NNC ADCOM Meeting
San Francisco, California
March 27, 1993

8/22/93

The meeting was called to order at 1:05 p.m. at the San Francisco Hilton by President Russ Eberhart.

Introduction of attendees:

R. J. Marks II (NNC PP), E. Sanchez-Sinencio (CAS), Enrique Ruspini (FUZZ-IEEE/ICNN '93), Walter Karplus (Standards), P.K. Simpson (VP), R. Alan (SIT), D. Wunsch (SIT), Benjamin Wah (CS), Oscar N. Garcia (CS), S. Kartalopoulos (Comm), J. Bezdek (Meetings Chair), Wes Snyder (R&A), T. Fukada (NNC Secretary), Steve Marlin (Meeting Management), C. Lau (CAS), S. Usui (EMBS), R. Nutter (NNC Treas), C. Robinson (EMBS), Caudell (VR Tech Committee), K. Haines (OES).

Agenda changes: Power Forum '93 removed from agenda. Items added for Nominations Committee and VR Technical Committee. Agenda approved.

Approval of Phoenix minutes was deferred until Seattle meeting.

Officer Reports:

President: Eberhart

Announced first meeting of Virtual Reality Technology Committee to take place the following morning at 8:00 am. A summary of recent TAB actions was presented echoing points outlined on page 45 (unless otherwise specified, the page references throughout these minutes all refer to the AdCom book with lilac-colored cover printed for this AdCom meeting). The loss of Irv Engelson as TAB Secretary was noted, as was the difficulty IEEE will have in replacing him. Announced appointment of Sanchez-Sinencio as Fellows Chair.

Vice President: Simpson

Discussed need to draw the evolutionary computation (EC) community together for conference cooperation. The genetic algorithm group is the largest in the EC community. Simpson encouraged IEEE cooperation with the genetic algorithm group, and its journal. Discussion pointed out that the journal's contents do not pose significant competition with the theoretical approach of two other journals representing the same field.

Treasurer: Nutter

Referred to pages 57 - 58 (of lilac-covered AdCom book) as current status of financial condition, and summary of net cash worth including only funds passed through NNC treasury. Subtracting negatives from page 58 leaves balance of approximately \$68,000. Also subtracting travel expenses related to this meeting of about \$20,000, leaving \$40,000 available resources. Nutter noted that he feels more comfortable with balance closer to \$100,000. Marks sought clarification on bookkeeping procedures, and mentions his report to be discussed below. Suggested that Finance Committee put together budget for approval by ADCOM.

Secretary: Fukuda

Noted certain items to be discussed in Old Business.

Virtual Reality Technology Committee and VRAIS '93: Caudell
Excitement about conference expressed. First meeting of the committee scheduled for Sunday morning at 8:00. The election of officers and compiling of an agenda to be discussed. Encouraged attendance by all interested.

Nagoya '93 IJCNN: Fukuda

Introduced meeting as described in brochure he distributed. Meeting will offer 16 tutorials; expected attendance is 1000 persons. Support provided by the City of Nagoya, and other industrial donors. List of tutorial speakers submitted by Shiro Usui. Also included in conference are tours of local industrial plants.

VRAIS '94 Raleigh-Durham: Robinson

John Trimble not present for report.

Robot and Human Communications Conference: Fukuda

Scheduled for Nov. 25, in Tokyo as shown in Attachment #9. It was noted that motion to provide technical co-sponsorship previously passed by NNC for the conference.

A motion was made by Karen Haines as education chair requesting \$5,000 as scholarship fund for students presenting papers at the Nagoya conference. Motion was amended and approved by the council to provide \$5K in budget for student scholarships for conferences in 1994.

RIG Committee: Alan

Motion made to approve status of committee as Standing Committee (see Attachment #10) was passed by council. In regards to financial support, previously submitted budget for RIGS, a motion was made by Simpson to provide \$5K for distinguished lecture series for 94, seconded by Caudell, but which was defeated. Marks moved to refer item to RIG Committee, seconded, passed.

Standards Committee: Karplus

Report presented providing information on standards formulation for artificial neural networks, fuzzy systems, and virtual reality as per Attachment #11. Metrics Committee requested support from IEEE. Commendation from Eberhart for hard work.

Nominations Committee: Marks

Next TAB meeting scheduled for June 28 - 30, in San Juan, Puerto Rico in connection with Section Congress. If new charter is not approved, NNC will revert to present organization. Nominations for officers from AdCom members should be forwarded to Marks. President will inform AdCom after TAB meeting in June of action that TAB takes on By-laws and Constitution.

Editor Reports: Marks and Bezdek

Information on Transactions on Neural Networks presented by Marks as per pages 109 - 110. Sanchez-Sinencio agreed to be reviewer of videos. Motion to approve new associate editors as per pages 111-112 submitted by Marks was approved. Transactions on Fuzzy Systems first issue just out, second issue is in typesetting, lots of papers submitted.

NNC Newsletter: Snyder

Overheads shown to provide information by IEEE for costs of newsletter. Noted that largest item is overseas postage. Refer to page 67.

Old Business:

Council Structure:

Revision of Constitution and Bylaws as shown on page 121 of lilac book was discussed. Eberhart suggested that minor corrections needed be implemented, then the changes be approved. Marks noted that, on page 134, in section on standing committees, RIGS (regional interest groups) should be added and moved to approve. Passed.

6:00 - Recess called for dinner.

7:30 - Meeting called to order, and gavel transferred from Eberhart to Robinson. Continued discussion occurred of motion on the table (requiring 2/3 vote) that council approve Constitution and By-law revisions in principle, and then have 25-day period to review document and raise objections; polling to be done by the Secretary within one month. Motion to amend made by Eberhart to vote here, then be polled by Secretary for possible objections, seconded by Snyder and approved. Main motion restated: NNC approves changes in Constitution and By-laws subject to the restrictions of the amendment. Motion passed. Two voting lists were passed around, one to be signed by those in favor of the amendment who don't want to be polled, one for those against who don't want to be polled. All others will be polled. Thirteen signed the list in favor and not wanting to be polled. Nobody signed the list as against and not wanting to be polled. So everyone except the 13 who are recorded as "in favor" will be polled.

Gavel returned to Eberhart.

World Congress 1994 Budget: Robinson

WCCI '94 was presented by Robinson with Orlando Organization as Attachment #12, and Budget as Attachment #13 (for Congress, and three Conferences). Garcia requested updates with regards to budget, and that a financial plan be made with milestones. ~~Marks is willing to create milestone plan.~~

Payment structure in budget as presented by Robinson includes early and late registration rates, and surplus of approximately \$250,000. Approving budget will also approve payment schedule as outlined. One Conference Proceedings will be provided, second copy may be obtained in a different medium (CDROM or paper) for additional cost of \$20; single copy of all Proceedings can be purchased for \$105. 1,400 attendees predicted; attendance will be higher because conference located in Orlando during the same week as the World Cup. INNS conference in early June; may compete for attendees.

Robinson moved to approve budget, Rick Alan seconded.

Garcia moved to provide amendment, seconded by Lau, to increase publicity budget by \$50,000, passed 8-6. In response to question, Robinson estimated that this will result in a 10 percent increase in seed money.

Garcia moved to provide amendment to cut amount expected from corporate and government grants in half, approved unanimously.

Garcia moved to provide amendment, seconded by Snyder, to double budgeted amount for audio-visual equipment expenses, approved.

Simpson moved to provide amendment that seed money be shown explicitly in budget, seconded by Marks. Motion passes.

Robinson moved to provide amendment, seconded by Nutter, that amount of seed money for three conferences be \$50,000 each; and \$150,000 seed for publicity, for a total of \$300,000 seed money.

Robinson moved to provide an amendment to the amendment, seconded by Garcia, stating that oversight of the allocation of funds for Congress will rest with ExCom (minus Eberhart and Marks, who have significant role in WCCI '94) plus Meetings Committee Chair: Fukuda, Nutter, Simpson, and Bezdek. Motion passed.

Seed money amendment question was called, but going to a vote was defeated, so further discussion continued.

Lau moved to provide an amendment to the amendment, seconded by Marks, that seed money will be phased in. Vote on amendment to amendment to phase in seed money, based on availability of funds. Tie vote. Chair casts with the negative, defeating the motion. Marks questioned voting rights of Bezdek; it was confirmed that Bezdek does not have AdCom vote. Recast vote: 8 for, 8 opposed (with Chair voting), tie defeats the motion.

Marks calls for written ballot on seed money amendment.

Snyder called the question on motion for amendment by written ballot for seed money to WCCI as proposed by Robinson. Vote was 11 for and 4 against, seed money amendment passed.

Robinson moves that ballots be destroyed. Motion passed, and ballots are destroyed.

Robinson moved to provide amendment that Orlando Section take 5% stake in operations, and also be approached for 5% of seed money. The motion passed.

Question called for approval of main motion and budget. Main motion for approval of WCCI '94 budget as amended passed.

Straw vote to determine whether Robinson should solicit other Societies for financial co-sponsorship is unanimously negative.

Meeting was adjourned at 11:00 pm. The next AdCom Meeting will be in Seattle at VRAIS '93, on the day before the tutorials.



TRANSACTIONS ON NEURAL NETWORKS
NEURAL NETWORKS COUNCIL



Robert J. Marks II
Editor-in-Chief

PLEASE REPLY TO:
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March 17, 1993

NNC AdCom
c/o Russell Eberhart, President
IEEE Neural Networks Council
Research Triangle Institute
P.O. Box 12194
Research Triangle Park, NC 27709
fax: 919-541-8746

Background: Annually, the IEEE Neural Networks Council can award the *outstanding paper award* for the IEEE Transactions on Neural Networks. (See attached description).

Motion 1: The Council recommends that

R.M. Sanner and J-J E Slotine, "Gaussian Networks for Direct Adaptive Control", IEEE Trans. on Neural Networks, 3(6):837-863, November 1992.

receive the *outstanding paper award* for the IEEE Transactions on Neural Networks for 1992.†

Motion 2: The Council recommends that

1) E.B. Baum, "Neural Net Algorithms That Learn in Polynomial Time from Examples and Queries", IEEE Trans. on Neural Networks, 2(1):5-19, January 1991.

2) E.D. Sontag, "Feedback Stabilization Using Two-Hidden-Layer Nets", IEEE Trans. on Neural Networks, 3(6):981-990, November 1992.

receive honorable mention for *outstanding paper award* for the IEEE Transactions on Neural Networks for 1992. A certificate will be awarded.

† The Treasurer is chartered with assuring the authors receive their award check:
Drs. Jean-Jaques E. Slotine and R.M. Sanner
Nonlinear Systems Laboratory
MIT
Cambridge, Mass 02139
FAX 617 258 5802

03/17/93

13:43

UW ELEC. ENG. DEPT.

004

Discussion: From the Outstanding Paper Nomination Committee:

(Hard copy version of this correspondence mailed to Dr. Brad Dickinson, Awards Chair)

From lemmon@maddog.ece.nd.edu Fri Feb 26 06:49:54 1993

Received: from bashful.u.washington.edu by carson.u.washington.edu

(5.65/UW-NDC Revision: 2.22) id AA26975; Fri, 26 Feb 93 06:49:44 -0800

Received: from nd.edu by bashful.u.washington.edu

(5.65/UW-NDC Revision: 2.22) id AA14638; Fri, 26 Feb 93 06:49:42 -0800

Received: from maddog.ece.nd.edu by nd.edu id aa02.26-094912:11989;

26 Feb 93 9:49 EST

Received: by maddog.ece.nd.edu (4.1/1.34)

id AA22699; Fri, 26 Feb 93 09:48:58 EST

Date: Fri, 26 Feb 93 09:48:58 EST

From: Michael Lemmon <Michael.D.Lemmon.1@nd.edu>

Message-Id: <9302261448.AA22699@maddog.ece.nd.edu>

To: antsakli@saturn.ece.nd.edu, barnard@ford.ce.up.ac.za,

bradley@ivy.princeton.edu, marks@u.washington.edu

Subject: Neural Network Transactions Best Paper Award (1991-1992)

Status: RO

Professor Dickinson,

Enclosed you'll find the recommendations for this year's (1991 and 1992)
"outstanding paper award" (IEEE Transactions on Neural Networks).

The selection was made by a committee consisting of myself, Etienne Barnard (U. Pretoria, OGI), and Panos Antsaklis (Notre Dame). Below you will find the ranked list of the committee's recommendations. There was unanimous agreement on the first selection. While Prof. Antsaklis and myself supported the following ranked list, it should be noted that Prof. Barnard suggested reversing the ranking of Baum's and Sontag's paper.

I'll be sending a copy of this recommendation via regular mail to you, Prof Marks, President Eberhart, and the committee members.

-
- 1) R.M. Sanner and J-J E Slotine, "Gaussian Networks for Direct Adaptive Control", IEEE Trans. on Neural Networks, 3(6):837-863, November 1992.

One of the burgeoning application areas for neural networks is in adaptive control of nonlinear systems. To date, there are relatively few results which go beyond empirical studies. This paper is important for it provides one of the few analytical results on the convergence properties of adaptive neurocontrollers. The paper presents a method for using Gaussian Radial Basis Function Networks for direct adaptive control. The paper provides an excellent mixture of analysis validated by empirical results. The work clearly points out one way in which neural networks can be integrated with variable structure systems to provide adaptive control of nonlinear systems.

-
- 2) E.B. Baum, "Neural Net Algorithms That Learn in Polynomial Time from Examples and Queries", *IEEE Trans. on Neural Networks*, 2(1):5-19, January 1991.

This paper is significant in its extension of query-based Perceptron training procedures to multilayer networks. The extension is done in a way which yields polynomial-time learning and is constructive in the sense of suggesting specific methods for constructing the hidden layer. The importance of this work is that it provides an alternative to the more popular backpropagation training algorithm; an alternative whose learning time scales well with problem complexity and may therefore provide a valuable learning technique for highly complex classification and systems identification problems.

-
- 3) E.D. Sontag, "Feedback Stabilization Using Two-Hidden-Layer Nets", *IEEE Trans. on Neural Networks*, 3(6):981-990, November 1992.

This work is significant in that it provides insight into the important and growing area of neurocontrol. While most applications of neural nets rely on the approximation capabilities of networks with a single hidden layer, this paper proves in a clear and rigorous manner that feedback stabilization generally requires networks with two hidden layers.

Sincerely

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Sincerely,



Robert J. Marks, Editor-in-Chief
IEEE Transactions on Neural Networks

IEEE Neural Networks Council Award Description

- Name of Award:** IEEE Transactions on Neural Networks Outstanding Paper Award
- Description:** An annual award for the outstanding paper published in the IEEE Transactions on Neural Networks in the previous two-year period.
- Administration:** By the Awards Committee of the IEEE Neural Networks Council. Nominations will be solicited from the Editor of the Transactions, Associate Editors, Executive Advisory Board, and Transactions Editorial Board, and from readers of the Transactions. The Awards Committee will judge the nominated papers and submit a recommendation to the Executive Committee of the Neural Networks Council Administrative Committee for final approval.
- Eligibility:** All papers published in the IEEE Transactions on Neural Networks are eligible. For 1991, papers published in 1990 (Volume 1) will be eligible. For 1992 and thereafter, papers published in the previous two years will be eligible. A paper selected for the award is not eligible for a second award in the following year.
- Award:** The author of the selected paper will receive a cash award of \$500 and a certificate. For a paper with multiple authors, the cash award will be shared by the coauthors and each coauthor will receive a certificate.
- Funds:** Funding will be from the non-dues revenue of the IEEE Neural Networks Council.
- Presentation/Publicity:** The award will normally be presented at the International Joint Conference on Neural Networks (IJCNN). The award winner will be announced in the IEEE Transactions on Neural Networks.
- Term:** The award will be administered as described here for a period of 5 years. Renewal of the award under the same or modified procedures is possible, depending on the five year experience with the award.

PUBLICATIONS COMMITTEE

MOTION 1 (per page 120)

MOTION 2 (per Supplement page 8)
Amended to go with option I

MOTION 3: Use Transactions on N.N. surplus
for 20% page increase and increase
subscription by 20% for members,
student-members and non-members
(e.g. for members new rate \$14).

MOTION 4: The president writes a letter
to Pete Morley by April 20, 1993
re: Kosko's 1st book review.
Amended: request action by IEEE
within 4 weeks.

IEEE NNC Regional Interest Groups (RIGs) Committee

The function of the RIGs Committee shall be to establish and assist local organizations of persons (RIGs) interested in disseminating information related to the Council's field of interest. They will be integrated into local IEEE Sections in a manner similar to IEEE Society Chapters. Like Chapters, they will be dually responsible to both their Section and to the IEEE Neural Networks Council. The RIGs may host speakers, sponsor seminars and engage in other activities appropriate to the Council's scientific, literary and educational mission.

The Chairman of the RIGs Committee shall be appointed by the President of the Council. The Chairman may appoint subcommittees as necessary.

The Committee will establish and maintain copies of the RIGs bylaws and submit an annual report to the Council President concerning the RIGs' compositions and activities.

Attachment #24

Hilton

Recommendations from the NNC Meetings
Committee.

Passed
ADCOM 1. Moved/Approved: Accept revised budget of
VRAIS, 1993 p. 105, ADCOM Book.

Tabled
to Seattle Moved/Approved: Preliminary Budget (Attached)
for VRAIS, 1994

Passed
ADCOM 3. Moved/Approved: Appoint ~~W~~ Fred Petry as
G.C. of FUZZ-IEEE, 1996, New Orleans.

Tabled
to Seattle Moved/Approved: WCCI 1997 to Be
held in San Diego, ~~Perth, GE~~. Budget
copies attached

Passed
ADCOM 5. Moved/Approved: Appoint Bob Simpson
General Chair of WCCI 1997, San Diego.

At this meeting:
1994 WCCI Budget, Orlando
(Get it from C. Robinson)

Tabled
as to
Seattle 1995 ICNN Budget, Perth

24

Reservations 1-800-HILTONS

1997 World Congress on Computational Intelligence Budget

Income²

| Description | Amount |
|---------------------------|---------------|
| Registration ¹ | 1,141.0 |
| Publications | 150.0 |
| Exhibits | 130.0 |
| Tutorials | 360.0 |
| Total³ | 1781.0 |

Expenses²

| Description | Amount |
|--------------------------|---------------|
| Promotion | 335.0 |
| Printing/Publication | 360.0 |
| Exhibits | 55.0 |
| Social Events | 280.0 |
| Management | 110.0 |
| Tutorials | 135.0 |
| Committee Expenses | 70.0 |
| Accounting/Audit | 20.0 |
| Facilities | 60.0 |
| Total³ | 1425.0 |

Registration Fee Structure²

| | Early-Early (10%) | Early (30%) | Late (60%) |
|--------------------------|----------------------|----------------|---------------|
| Members (60%) | 285 | 350 | 450 |
| Non-Members (30%) | 350 | 450 | 575 |
| Students (10%) | 95 | 95 | 125 |

¹ Registration income of \$1,141,325.00 is based on attendance estimates as follows:

| | |
|--------------|-------------|
| ICNN 97 | 1200 |
| FUZZ-IEEE 97 | 600 |
| VRAIS 97 | 900 |
| ICES 97 | 200 |
| Total | 2900 |

² All Numbers in Thousands of Dollars. All fees are in 1997 dollars calculated as 5% increase per year from the average of the approved budget values for ICNN 92, FUZZ-IEEE 92, and VRAIS 93.

³ Estimated surplus of \$356,000.00. Proposed 75%/25% split for seed money and surplus between IEEE Neural Networks Council and the IEEE San Diego Section, respectively.

November 18, 1992

1997 World Congress on Computational Intelligence Detailed Expense Items

| Description | Amount |
|---|---------------|
| Promotion | |
| Poster Preparation and Printing (Advance) | 10.0 |
| Brochure Preparation and Printing | 95.0 |
| Mailing of Brochures (twice) | 115.0 |
| Advertisements | 65.0 |
| Public Relations | 50.0 |
| | 335.0 |
| Printing/Publication | |
| Review and Processing Papers (inc. mailing) | 15.0 |
| Proceedings (2500 + attendance each) | 265.0 |
| Abstract Processing (Poster Sessions) | 35.0 |
| Preliminary & Final Program (inc. mailing) | 45.0 |
| | 360.0 |
| Exhibits | |
| Promotion Preparation/Printing/Mailing | 45.0 |
| Committee Expenses | 10.0 |
| | 55.0 |
| Social Events | |
| Opening Reception | 42.0 |
| Plenary Event | 168.0 |
| Coffee Breaks | 70.0 |
| | 280.0 |
| Management | |
| Meeting Management | 75.0 |
| Insurance & Bonding | 10.0 |
| Security Guards | 15.0 |
| Supplies | 10.0 |
| | 110.0 |
| Tutorials | |
| Speaker Travel & Fees | 80.0 |
| Supplies | 1.0 |
| Preparation/Printing Notes | 45.0 |
| Audio/Visual Equipment | 4.0 |
| Coffee Breaks | 5.0 |
| | 135.0 |
| Committee Expenses | |
| Plenary Speaker Travel & Fees | 30.0 |
| Contingency/Gen. Chair Discretion | 15.0 |
| Committee Travel | 25.0 |
| | 70.0 |
| Accounting/Audit | |
| | 20.0 |
| Facilities | |
| Poster Session Equipment Rental | 30.0 |
| Audio/Visual Equipment | 30.0 |
| | 60.0 |
| Total | 1425.0 |

November 18, 1992

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FUZZ-IEEE/IFES '95



attachment 6

March 20-24, 1995
YOKOHAMA, Japan

The International Joint Conference of
the Fourth IEEE International Conference
on Fuzzy Systems
and
the Second International Fuzzy
Engineering Symposium

Call for Papers

Sponsored by IEEE, LIFE, SOFT, JIPDEC

● Topics of Interest ●

Basic concepts and methodology, fuzzy computing (hard-
ware/software), genetic algorithms and evolutionary systems,
human interface, image understanding, intelligent systems,
neural network, virtual reality, and applications to:
agriculture, behavioral science, business
management, civil engineering, control, design
and architecture, ecology, education, industry,
knowledge engineering, law, medicine, natural
language, operations research, pattern
recognition, psychology, robotics, security,
socio economics

● Deadlines ●

Ten pages paper (4 copies) to the secretariat : Aug,31 1994
Notification of acceptance : Oct,31 1994
Camera ready form submission to the secretariat : Dec,15 1994

Organizing Committee Chair : Toshiro TERANO
General Chair : Michio SUGENO
Program Committee Co-Chairs : Kaoru HIROTA
Toshio FUKUDA

Congress Secretariat :

LIFE(Laboratory for International Fuzzy Engineering Research)
Siber Hegner Building 4FL, 89-1 Yamashita-cho,
Naka-ku, Yokohama, 231 Japan
attention: Mieko HEMMI (Ms)
Phone: +81-45-212-8268
Fax: +81-45-212-8255

Program Committee

F.Arai(Japan)
K.Asai(Japan)
J.Baldwin(England)
Z.Blen(Korea)
P.Bonissone(U.S.A)
B.Bouchon-Meunier (France)
J.Buckley(U.S.A)
C.Carisson(Austria)
E.Czogala(Poland)
M.Delgado(Spain)
D.Dubois(France)
T.Fukuda(Japan)
M.Gupta(Canada)
K.Hirota(Japan)
J.Kacprzyk(Poland)
A.Kandel(U.S.A)
J.Keller(U.S.A)
G.J.Kir(U.S.A)
L.T.Koczy(Hungary)
H.Kolvo(Finland)
YingMing Liu(China)
E.Mamdani(England)
R.Marks(U.S.A)
R.Lopez de Mantaras(Spain)
M.Mizumoto(Japan)
M.Mukaidono(Japan)
C.Negotta(U.S.A)
H.T.Nguyen(U.S.A)
W.Pedrycz(Canada)
H.Prade(France)
A.Ralescu(Japan/U.S.A)
D.Ralescu(U.S.A)
M.Roubens(Belgium)
E.Ruspini(U.S.A)
E.Sanchez(France)
H.Shizuka(Japan)
P.Smets(Belgium)
M.Sugeno(Japan)
T.Takagi(Japan)
H.Tanaka(Japan)
T.Terano(Japan)
M.Togai(U.S.A)
E.Trillas(Spain)
Y.Tsukamoto(Japan)
I.B.Turksen(Canada)
M.Umano(Japan)
G.Vachkov(Bulgaria)
P.P.Wang(U.S.A)
P.Z.Wang(Singapore)
R.R.Yager(U.S.A)
T.Yamakawa(Japan)
S.Yasunobu(Japan)
L.A.Zadeh(U.S.A)
M.Zamankova(U.S.A)
H.-J.Zimmermann(German)

FOR YOUR RECORDS

USE BALL POINT PEN
OR TYPEWRITE

Attachment 7



IEEE TECHNICAL ACTIVITIES

IEEE CONFERENCE INFORMATION SCHEDULE

See reverse side for instructions on how to complete this form

CONFERENCE

1. Full title of Conference The International Joint Conference of the Fourth IEEE International Conference on Fuzzy Systems and the Second International Fuzzy Engineering Symposium
2. Dates of Conference March 20-24, 1995
3. Location of Conference (full name and address)
YOKOHAMA
4. Estimated Attendance 650
5. Exhibits Yes No
6. Will there be a Conference publication? Yes No If yes, check one box below.
 Conference Record Other (explain) _____

IEEE ENTITY INVOLVEMENT

7. If IEEE entity involvement is either Sponsorship or Cosponsorship as defined on reverse side, enter below the name of all involved IEEE and non-IEEE entities and their percent of financial share.

| | |
|--------------|---------|
| Entity _____ | % _____ |
| Entity _____ | % _____ |
| Entity _____ | % _____ |
| Entity _____ | % _____ |

8. If IEEE entity involvement is either Participating or Cooperating as defined on reverse side, enter below the names of all involved IEEE and non-IEEE entities and indicate the involvement of each.

| Entity _____ | Type of Involvement | |
|--------------|--------------------------|--------------------------|
| | Participating | Cooperating |
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> |
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> |
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> |
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> |

9. Has the Section within whose geographical boundaries the Conference is being held been notified? Yes No
If yes, who was contacted? _____

| | |
|------|---------|
| Name | Section |
|------|---------|

10. Has IEEE Conference Insurance form been submitted? Yes No

ADMINISTRATION

For the following Conference officers, enter first name, middle initial and last name, plus complete address and telephone number.

CONFERENCE CHAIRMAN Prof. Michio SUGENO Tel. No. (+81) 45-922-1111 ext.2641
Address Dept. of Systems Science, Tokyo Institute of Technology, 4259 Nagatsuta, Midoriku, Yokohama, 227 JAPAN

INFORMATION CONTACT Ms. Mieko HEMMI Tel. No. (+81) 45-212-8268
Address LIFE (Laboratory for International Fuzzy Engineering Research)
Siber Hegner Bldg. 3F, 89-1 Yamashita-cho, Nakaku, Yokohama, 231 JAPAN

COMMITTEE MEMBERS

If available, please attach to this form a complete list of Conference Committee members, their titles, addresses and telephone numbers.

SUBMITTED BY:

Name Prof. Toshiro TERANO Tel. No. (+81) 45-212-8222
Address LIFE Siber Hegner Bldg. 3F, 89-1 Yamashita-cho, Nakaku, Yokohama, 231 JAPAN
Conference Position Chairman of Organizing Committee

SIGNATURE _____ Date _____

28

RETURN TO: IEEE CONFERENCE SERVICES 445 HOES LANE, P.O. BOX 1331, PISCATAWAY, N.J. 08855-1331, U.S.A.

budget (IEEE提出分)3/22

FUZZ-IEEE/IFES '95 Financial Report

March 20-24, 1995
Yokohama, Japan

Part I: INCOME

| | Qty. | Fee | Budget | Int Rept | Final Rept |
|--------------------------|-----------|----------|---------------------|----------|------------|
| <u>RESISTRATION FEES</u> | | | | | |
| Early | 450 | \$320.00 | \$144,000.00 | | |
| Late | 100 | \$360.00 | \$36,000.00 | | |
| at Conference | 50 | \$400.00 | \$20,000.00 | | |
| Student | 50 | \$24.00 | \$1,200.00 | | |
| | 650 Total | | \$201,200.00 | | |
| <u>CONFERENCE SALES</u> | | | | | |
| <u>EXHIBITS</u> | | | | | |
| <u>SOCIAL FUNCTIONS</u> | | | | | |
| Banquet | 300 | \$64.00 | \$19,200.00 | | |
| | Total | | \$19,200.00 | | |
| <u>ALL OTHER</u> | | | | | |
| Tutorial | 100 | \$160.00 | \$16,000.00 | | |
| | Total | | \$16,000.00 | | |
| | | | <u>TOTAL INCOME</u> | | |
| | | | \$236,400.00 | | |

budget (IEEE提出分)3/22

PART II: EXPENSES

| | Budget | Int Rept | Final Rept |
|-----------------------------------|--------------|----------|------------|
| <u>PROMOTION:</u> | | | |
| Printing/Call for papers | \$8,000.00 | | |
| Printing/Advance Program | \$4,000.00 | | |
| Printing/Final Program | \$16,000.00 | | |
| Mailing Lists/Labels | \$4,000.00 | | |
| Postage | \$16,000.00 | | |
| Total | \$48,000.00 | | |
| <u>CONFERENCE PUBLICATION</u> | | | |
| Proceedings Printing | \$80,000.00 | | |
| Shipping | \$2,400.00 | | |
| Total | \$82,400.00 | | |
| <u>EXHIBITS</u> | | | |
| Construction works | \$16,000.00 | | |
| Total | \$16,000.00 | | |
| <u>SOCIAL FUNCTIONS</u> | | | |
| Banquet | \$65,600.00 | | |
| Total | \$65,600.00 | | |
| <u>ADMINISTRATION</u> | | | |
| Regist. help / Bookkeeping | \$28,800.00 | | |
| Projection Equip. Rent & Operator | \$5,200.00 | | |
| Management, Secretarial Services | \$64,000.00 | | |
| Hall Equipment Rental | \$112,000.00 | | |
| Pr.forms tickets, stat., etc. | \$10,000.00 | | |
| Sings, badges, etc. | \$16,000.00 | | |
| Telephone, FAX | \$4,000.00 | | |
| Total | \$240,000.00 | | |
| <u>ALL OTHER</u> | | | |
| Committee Expenses | \$52,000.00 | | |
| Other | \$16,000.00 | | |
| Total | \$68,000.00 | | |
| <u>TOTAL EXPENSES</u> | \$520,000.00 | | |

budget (IEEE提出分)3/22

PART III: SUMMARY

| | Budget | Int Rept | Final Rept |
|---------------------------|----------------|----------|------------|
| <u>INCOME</u> | | | |
| Registration Fees | \$201,200.00 | | |
| Conference Sales | | | |
| Exhibits | | | |
| Social Functions | \$19,200.00 | | |
| All other | \$16,000.00 | | |
| Total Conference income | \$236,400.00 | | |
| | | | |
| Total Receipts | \$236,400.00 | | |
| | | | |
| <u>EXPENSE</u> | | | |
| Promotion | \$48,000.00 | | |
| Conference Publications | \$82,400.00 | | |
| Exhibits | \$16,000.00 | | |
| Social Functions | \$65,600.00 | | |
| Administration | \$240,000.00 | | |
| All other conf. expenses | \$68,000.00 | | |
| Total Conference Expenses | \$520,000.00 | | |
| | | | |
| Total outlays | | | |
| | | | |
| Total receipts | \$236,400.00 | | |
| Total outlays | \$520,000.00 | | |
| | | | |
| <u>SURPLUS(LOSS)</u> | (\$283,600.00) | | |



IEEE REGION 10, WESTERN AUSTRALIAN SECTION

Attachment (B)

IEEE THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

Professor Yianni Attikiouzel, PhD - Chairman

PLEASE REPLY TO:

Director

Centre for Intelligent Information Processing Systems

Department of Electrical & Electronic Engineering

The University of Western Australia

NEDLANDS WA 6009

Phone: (09) 380 3134/3897 Fax: (09) 380 1101

email: yianni@swancc.ee.uwa.edu.au

**1995 IEEE International Conference on Neural Networks
Perth, Western Australia - Oct 1995**

General Chairman:

Professor Yianni Attikiouzel, The University of Western Australia

Program Chair:

Professor Shun-Ichi Amari, Tokyo University

Professor Rolf Eckmiller, University of Dusseldorf, Germany

Dr M Palaniswami, University of Melbourne

Local Arrangements

Dr Dorota Kieronska, Curtin University, Australia

Treasurer

Mr Keith Godfrey, The University of Western Australia



IEEE TECHNICAL ACTIVITIES

IEEE CONFERENCE DETAILED FINANCIAL REPORT - PART 1: INCOME

This form should be completed only for IEEE sponsored or cosponsored Conferences. The care taken in filling out this report will lead to a more accurate projection of your Conference's net surplus or loss.

NOTE: All income items may be expressed in U.S. Dollars or in local currency.

Full title of Conference INTERNATIONAL CONFERENCE ON NEURAL NETWORKS
 Dates of Conference OCT 1995

INCOME

REGISTRATION FEES

| | Quantity | Fee | = | Budget | Interim Report | Final Report |
|------------------------------|-------------------|--------------|---|--------------------------|----------------|--------------|
| In Advance-Members | <u>200</u> | <u>x 325</u> | = | <u>\$ 65,000</u> | \$ _____ | \$ _____ |
| In Advance-Nonmembers | <u>135</u> | <u>x 425</u> | = | <u>57,375</u> | _____ | _____ |
| In Advance-Reduced Rate | <u>35</u> | <u>x 150</u> | = | <u>5,250</u> | _____ | _____ |
| At Conference - Members | <u>30</u> | <u>x 425</u> | = | <u>12,750</u> | _____ | _____ |
| At Conference - Nonmembers | <u>40</u> | <u>x 500</u> | = | <u>20,000</u> | _____ | _____ |
| At Conference - Reduced Rate | <u>25</u> | <u>x 200</u> | = | <u>5,000</u> | _____ | _____ |
| Total Registrants | <u>465</u> | Total | | <u>\$ 165,375</u> | _____ | _____ |

CONFERENCE PUBLICATION SALES

| | | | | | | |
|---------------------|-------------------|--------------|---|------------------------|--------------|--------------|
| To Members | <u>100</u> | <u>x 60</u> | = | <u>\$ 6000</u> | _____ | _____ |
| To Nonmembers | <u>100</u> | <u>x 80</u> | = | <u>8000</u> | _____ | _____ |
| To IEEE Hq. | <u>700</u> | <u>x 50</u> | = | <u>35000</u> | _____ | _____ |
| Total Copies | <u>900</u> | Total | | <u>\$ 49000</u> | _____ | _____ |

EXHIBITS

| | | | | | | |
|--------------|-----------|---------------|---|------------------------|--------------|--------------|
| Tables | | <u>x</u> | = | <u>\$ _____</u> | _____ | _____ |
| Booths | <u>10</u> | <u>x 1000</u> | = | <u>10000</u> | _____ | _____ |
| Booths | <u>5</u> | <u>x 500</u> | = | <u>2500</u> | _____ | _____ |
| | | <u>x</u> | = | _____ | _____ | _____ |
| Total | | | | <u>\$ 12500</u> | _____ | _____ |

SOCIAL FUNCTIONS

(Itemize by event on separate sheets.)

Banquet: 250 x \$45

| | | | | | | |
|--------------|--|--|--|-------------------------|--------------|--------------|
| Total | | | | <u>\$ 11,250</u> | _____ | _____ |
|--------------|--|--|--|-------------------------|--------------|--------------|

ALL OTHER (List here or attach details).

| | | | | | | |
|------------------|------------|--------------|---|-------------------------|--------------|--------------|
| <u>Tutorials</u> | <u>130</u> | <u>x 300</u> | = | <u>39,000</u> | _____ | _____ |
| | | <u>x</u> | = | _____ | _____ | _____ |
| Total | | | | <u>\$ 39,000</u> | _____ | _____ |

NOTE: BE SURE TO COMPLETE AND RETURN ALL FINANCIAL FORMS TOGETHER ("SUMMARY REPORT", "PART 1: INCOME", "PART II: EXPENSE" AND "SOCIAL FUNCTIONS").

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520-00-0011



IEEE TECHNICAL ACTIVITIES

SUMMARY FINANCIAL REPORT FOR IEEE SPONSORED OR COSPONSORED CONFERENCE

See reverse side for instructions on how to complete this form

CONFERENCE

1. Full title of Conference INTERNATIONAL CONFERENCE ON NEURAL NETWORKS
2. Dates of Conference OCT 1995
3. Location of Conference (full name and address) Sheraton Hotel/Langley Hotel : Perth - Western Australia

TYPE OF REPORT/CURRENCY USED

4. Indicate type of report by checking one box:
 Budget Interim Report Final Report

5. All income and expense figures below must be in U.S. Dollars. For Conferences outside the U.S.A., indicate here local currency (e.g., Swiss Francs) and the conversion rate used (local currency units per 1 U.S. Dollar) and date.

Local Currency: U.S. Dollars Conversion rate: _____ Date of Conversion rate: _____

| INCOME | Budget | Interim Report | Final Report |
|-----------------------------------|-------------------|----------------|--------------|
| 6. Registration Fees | \$ <u>165 375</u> | \$ _____ | \$ _____ |
| 7. Conference Publication Sales | <u>49000</u> | _____ | _____ |
| 8. Exhibits | <u>12500</u> | _____ | _____ |
| 9. Social Functions | <u>11 250</u> | _____ | _____ |
| 10. All Other Conference Receipts | <u>39 000</u> | _____ | _____ |
| 11. Total Conference Income | <u>277 125</u> | _____ | _____ |
| 12. Conference Loans | <u>50000</u> | _____ | _____ |
| 13. Total Receipts | \$ <u>327 125</u> | \$ _____ | \$ _____ |

| EXPENSES | Budget | Interim Report | Final Report |
|-----------------------------------|-------------------|----------------|--------------|
| 14. Promotion | \$ <u>55 000</u> | \$ _____ | \$ _____ |
| 15. Conference Publications | <u>50 000</u> | _____ | _____ |
| 16. Exhibits | <u>3 000</u> | _____ | _____ |
| 17. Social Functions | <u>52 455</u> | _____ | _____ |
| 18. Administration | <u>59 500</u> | _____ | _____ |
| 19. All Other Conference Expenses | <u>31 000</u> | _____ | _____ |
| 20. Total Conference Expense | <u>250 955</u> | _____ | _____ |
| 21. Loan Repayments | <u>50000</u> | _____ | _____ |
| 22. Total Outlays | \$ <u>300 955</u> | \$ _____ | \$ _____ |

23. Total Receipts (13) \$ 327 125 24. Total Outlays (22) \$ 300 955
25. Surplus (Loss)-(Item 23 less Item 24) \$ 26 170

| POST CONFERENCE DISTRIBUTION | Surplus (Loss in Item 25 to be distributed as follows: | |
|------------------------------|--|----------------|
| Cosponsor Entity | % Share | \$ Distributed |
| a. _____ | _____ | _____ |
| b. _____ | _____ | _____ |
| c. _____ | _____ | _____ |
| d. _____ | _____ | _____ |
| Surplus (Loss) | \$ _____ | _____ |

CONFERENCE FINANCIAL INSTITUTION
Name of Bank Westpac
Address University Branch, Nedlands, Perth, WA 6009
Conference Account Title IEEE Neural Network

Have you requested IEEE Conference Insurance? Yes No

SUBMITTED BY:
Name Y Antikouzel Tel.No. (09)380 3134
Address IEEE-WA Section, c/o CHPS, E & E Engineering, The University of Western Australia, Nedlands 6009
Conference Position General Chair

CONFERENCE SIGNATURE _____ SOCIETY SIGNATURE _____ Date 27 MAR

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IEEE TECHNICAL ACTIVITIES
IEEE CONFERENCE DETAILED FINANCIAL REPORT - PART 1I: EXPENSE

This form should be completed only for IEEE sponsored or cosponsored Conferences. The care taken in filling out this report will lead to a more accurate projection of your Conference's net surplus or loss.

NOTE: All income items may be expressed in U.S. Dollars or in local currency.

Full title of Conference INTERNATIONAL CONFERENCE ON NEURAL NETWORKS

Dates of Conference OCT 1995

| PROMOTION | Budget | Interim Report | Final Report |
|---|------------------------|----------------|--------------|
| Printing/Call for Papers | \$ 12,000 | \$ | \$ |
| Printing/Advance Program | 9,000 | | |
| Printing/Final Program | 4,000 | | |
| Mailing Lists/Labels | 3,000 | | |
| Postage | 25,000 | | |
| Other Posters | 2,000 | | |
| Total | \$ 55,000 | \$ | \$ |
| CONFERENCE PUBLICATION | | | |
| Conference Record/Digest Printing | \$ 47,000 | \$ | \$ |
| Authors Kits Printing | 1,000 | | |
| Shipping to Site and IEEE Hq | 2,000 | | |
| Total | \$ 50,000 | \$ | \$ |
| EXHIBITS (Attach detailed statement of all expenses necessary to mount and display exhibits) | Total \$ 3,000 | \$ | \$ |
| SOCIAL FUNCTIONS (Itemize event on separate sheets.) | Total \$ 52,455 | \$ | \$ |
| ADMINISTRATION | | | |
| Insurance & Bonding | \$ 1,500 | \$ | \$ |
| Security & Guard Service | 1,500 | | |
| Projection Equip. Rent & Operator | 3,000 | | |
| Management, Secretarial Services | 38,000 | | |
| Office Equip. Rental | 2,000 | | |
| Printing forms, Tickets, Stationery, Etc. | 2,000 | | |
| Posters, Signs, Badges, Etc. | 2,500 | | |
| Telephone | 3,000 | | |
| Transportation | 1,000 | | |
| Gratuities, Etc. (Attach Details) | 0 | | |
| Total | \$ 59,500 | \$ | \$ |
| ALL OTHER | | | |
| Committee Expenses | \$ 16,000 | \$ | \$ |
| Other (Attach Details) Tutorials | 15,000 | | |
| Total | \$ 31,000 | \$ | \$ |
| TOTAL EXPENSES | \$ 250,955 | \$ | \$ |

CURRENCY

State here the currency utilized in above computations, e.g., U.S. Dollars, Swiss Francs, etc.

Currency utilized: U.S.

In the event a currency other than the U.S. Dollar is utilized, it will be necessary to convert to U.S. Dollars - at the current conversion rate when submitting your final Summary Financial Report to IEEE.

SUBMITTED BY:

Name Y Attikiouzel Tel.No.(09)380 3134
 Address IEEE-WA Section, c/o CIIPS, E & E Engineering, The University of Western Australia, Nedlands 6009
 Conference Position General Chair

SIGNATURE [Signature] Date 27 March 1993

NOTE: BE SURE TO COMPLETE AND RETURN ALL FINANCIAL FORMS TOGETHER ("SUMMARY REPORT", "PART 1: INCOME", "PART II: EXPENSE" AND "SOCIAL FUNCTIONS").

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520-00-0012

SOCIAL FUNCTIONS

- (1) **Coffee, pastries, etc., between sessions**
 No. Breaks 6 x No. people 465 x \$/Person \$US2.50 \$ 6,975 \$ _____
- (2) **Luncheons**
 No. Luncheons 3 x No. people 465 x \$/Person \$US20 \$ 27,900 \$ _____
- (3) **Receptions**
 No. Receptions 1 x No. people 465 x \$/Person \$US12 \$ 5,580 \$ _____
- (4) **Banquets**
 No. Banquets 1 x No. people 250 x \$/Person \$US40 \$ 10,000 \$ _____
- (5) **Speakers Hospitality**
 No. people x \$/Person _____ \$ 2,000 \$ _____
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- (7) **Other social functions expenses (specific)**..... \$ _____ \$ _____

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ROBOT AND HUMAN COMMUNICATION

5 November 1993, Science University of Tokyo, JAPAN

Cosponsored by

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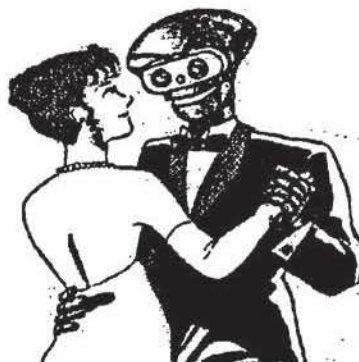
Program Chairs

Hisato Kobayashi, Professor (Hosei University)
 Toshio Fukuda, Professor (Nagoya University)
 Hiroshi Harashima, Professor (The Univ. of Tokyo)

Topics

The 2nd international workshop will focus on the following topics but any subjects related to communication between robot/computer and human will be also welcome.

- Human Machine Interaction
- Intelligent Robots
- Facial and Vocal Expressions
- Medical Robots
- Robot Human Collaboration
- Nonverbal Communication
- Kansei Information Processing
- Intelligent Teleoperation & Teaching
- Emotional Communication
- Computational Psychology
- Artificial Emotion
- Mental Models
- Multimedia Interface
- Virtual Environments



RO-MAN'93 Tokyo

November 3-5, 1993

Science University of Tokyo, Tokyo, Japan

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Call-for-Papers : Authors are invited to submit four copies of an extended summary of 300 - 600 words together with one or two figures most informative until 15th May, 1993 to Professor Fumio Hara :

**Department of Mechanical Engineering
 Science University of Tokyo
 1-3 Kagurazaka, Shinjuku-ku, Tokyo 162, JAPAN
 Phone : +81-3-3260-4271 ext. 3359
 Fax : +81-3-3266-0394 or +81-3-3260-4291
 E-mail : MM8793@JPNSUT20.BITNET**

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Events

- Three special lectures and one special presentation
- Key note speeches in technical sessions
- Reception, exhibitions and farewell party
- Banquet with "Virtual Reality Entertainments"

- I plan to submit ()abstract(s).
- I plan to attend the workshop.
 - with paper
 - without paper
- I wish to receive the final program.

Please return this form to :
 Professor Fumio Hara
 Dept. of Mechanical Engineering
 Science Univ. of Tokyo
 1-3 Kagurazaka, Shinjuku-ku,
 Tokyo 162, JAPAN

| |
|-------------|
| Name |
| Affiliation |
| Address |
| |

Attachment (10)

IEEE Neural Networks Council Regional Interest Groups Committee

RIGs Guide

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IEEE NNC RIGs Guide

Neural Networks Council Overview

The IEEE Neural Networks Council consists of 2 delegates from each of 15 sponsoring IEEE Societies, i.e.,

- Circuits and Systems Society
- Communications Society
- Computer Society
- Control Systems Society
- Engineering in Medicine & Biology Society
- Industrial Electronics Society
- Industry Applications Society
- Information Theory Society
- Lasers and Electro-Optics Society
- Oceanic Engineering Society
- Power Systems Engineering Society
- Robotics and Automation Society
- Signal Processing Society
- Social Implications of Technology Society
- Systems, Man & Cybernetics Society

These delegates are chartered with promoting the fields of neural networks, fuzzy logic, genetic algorithms, virtual reality, biomolecular computing and related technologies. To this end they have elected a Council President and other officers. They have also established the Regional Interest Groups (RIGs) Committee to facilitate interaction of those in the field at a local level.

Although the RIGs ^{are} ~~will be~~ organized similarly to Chapters of IEEE Societies, they ^{are} ~~will~~ not actually be Chapters. This is because the Neural Networks Council is itself not a particular Society but rather an inter-Societal organization. The ramifications of these distinctions emerge in considerations of formal names and funding mechanisms.

Your RIG will have direct administrative contact with both the NNC itself and your local IEEE Section. The NNC may provide financial assistance, access to leading speakers and promotion of your activities via the RIGs newsletter. The Section may also provide financial assistance, and promotion of your activities via the Section newsletter.

IEEE NNC RIGs Guide

Funding

Your Section is eligible for funding via rebates from the IEEE, Inc. based on Section membership. These funds may contribute to your annual budget provided by the Section. This is similar to the usual funding mechanism for IEEE Chapters except that for the Section to receive the rebate, the RIG meeting must be held either under the Section's auspices as a whole or under the sponsorship of one of the NNC participating Societies.

The size of the budget provided to each RIG is open to negotiation between the RIG and its Section.

Use the IEEE L-31 forms (Appendix A) to report your meeting summary to your Section so they can pass it along to IEEE, Inc. A RIG sign-in sheet is also necessary to validate the IEEE attendance at each meeting (Appendix B or equivalent).

IEEE Bylaw 406.6 notes that each Section shall have control of all of the assets of each of its respective Chapters. This also applies to Neural Network Council Regional Interest Groups. An annual accounting of income and disbursements will be required both by your Section and the Neural Networks Council.

IEEE NNC RIGs Guide

RIG Requirements

1. A minimum of 12 members (excluding students) of IEEE Neural Networks Council constituent Societies are required to form a RIG. The 12 must notify the NNC of their desire to organize. Upon NNC approval, an election for the office of Chairman must be held and notice of such given to the NNC at which time the RIG may be formally recognized and made eligible for NNC funding and assistance.
2. Ongoing Requirements: A RIG must hold a minimum of 4 technical meetings per year and sustain a membership of at least 12 to be considered active. Additionally, each RIG must hold an annual election for the office of Chairman and communicate the results of such election to the RIGs Committee Chairman along with an updated list of at least 12 members.
3. Official IEEE nomenclature requires that your RIG identify itself as an "IEEE Regional Interest Group" or "IEEE RIG" in any formal context.
4. A RIG may be organized either as a committee of a local Chapter of an IEEE NNC constituent Society or at the Section level similarly to an IEEE Chapter.
5. Except where explicitly amended by this Guide to cover the particular circumstances of operating a Regional Interest Group as opposed to a Chapter, all IEEE Chapter requirements as set forth in the IEEE Bylaws are to be adhered to.

Suggestions for RIG Operations

1. A typical meeting may follow this sequence: Pre-meeting speaker's dinner; presentation; business meeting. Invite the "inner core" of the RIG membership to the dinner and seat the speaker in the middle of the table so as many people can be exposed to him/her/them/te as possible.

The Chairman should introduce the speaker by noting a few facts from his background, interests, etc. The Chairman should also appropriately truncate the Question session after the presentation, then thank and applaud the speaker. A follow-up note to the speaker is always a good idea.

2. Obtain an outline of your speaker's proposed presentation in advance so that you can help them stick to the agreed-upon topics. Use the RIGs *How You Can Help Us Help You* and *How You Can Help You* flyers (Appendix C).

3. Use artwork in your promotional literature; it can work wonders.

4. Vary your speakers; our field of interest covers many topics from Neuroscience, Cognitive Psychology, Biology, Electrical Engineering and Finance. Don't be limited to traditional EE fields.

4. Open your own bank account distinct from the Section's. The IEEE tax-exempt number can be made available to you. Disbursements should be on the basis of "any 2 of the above 3 signatures" basis.

5. Although the RIG is responsible in some ways both to the local Section and to the NNC, such requirements are minimal. Stamp your personality on your RIG; it's your show.

6. Share your suggestions, experiences and accomplishments with the other RIGs worldwide via the newsletter so we can all benefit.

7. Be good to your Section and they will be good to you; let them know what you're doing. Send either the RIG Chairman or an officer to the Section meetings.

IEEE NNC RIGs Guide

8. Read the IEEE handbook *IEEE Society-Section-Chapter Interactions* for more information and suggestions including a sample set of Chapter Bylaws (available from IEEE Field Services at 1-908-981-0060).

8. Talk to us; specifically, do you have any suggestions for improving this Guide?

Rick Alan
IEEE NNC RIGs Committee
c/o TRW Safety Systems
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Mesa, AZ 85205
USA
(602) 396-1268
e-mail: 70324.1625@compuserve.com

We wish you the greatest success in your RIGs endeavor; have fun.



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Code No.

Type of Meeting

- | | |
|----|--------------|
| 1. | Technical |
| 2. | Professional |
| 3. | Social |

MEETING REPORT

THIS REPORT FORM IS FOR PERMANENT RECORDS OF THE SECTION SECRETARY
A COPY MAY BE FORWARDED TO IEEE FIELD SERVICES

The Section Secretary will summarize all meeting activity of the Section, its Subsection(s) and Chapter(s) in one Annual Meeting Report for each calendar year.

The Section Secretary shall complete and file this form following each meeting of the Section.

The Subsection Secretary shall complete and forward this report to the Section Secretary within ten days following each Subsection meeting.

The Chapter Officer shall complete and forward this report to the Section Secretary within ten days following each Chapter meeting.

MEETING DATE: _____ *WAS THERE A MEETING (ATTENDANCE) CHARGE? YES NO
MEETING CATEGORY CODE NO. 1 2 3

SPONSOR OF MEETING (IDENTIFY)

- Section: _____
- Subsection: _____
- Chapter: _____

Attendance - IEEE members: _____; Guest _____; Total: _____

Presiding Officer _____ Title _____

| | |
|--|-----------------------------|
| Title of Paper: _____ | |
| Speaker: _____ | Company: _____ Phone: _____ |
| Address: _____ | |
| Speaker Rating: Would you recommend this speaker to other IEEE audiences? (circle rating) NOT RECOMMENDED <u>1</u> <u>2</u> <u>3</u> <u>4</u> <u>5</u> STRONGLY RECOMMENDED | |
| Title of Paper: _____ | |
| Speaker: _____ | Company: _____ Phone: _____ |
| Address: _____ | |
| Speaker Rating: Would you recommend this speaker to other IEEE audiences? (circle rating) NOT RECOMMENDED <u>1</u> <u>2</u> <u>3</u> <u>4</u> <u>5</u> STRONGLY RECOMMENDED | |

Date Report Submitted _____

Signature of Officer _____

(USE REVERSE SIDE TO FURNISH ANY ADDITIONAL INFORMATION)

*Check "YES" box only when there was a charge to attend the meeting; optional food or facility expenses with a meeting not considered an admission charge.

IEEE NNC RIGs Guide

IEEE RIG Speaker Hints

How You Can Help Us Help You

To help us facilitate your presentation, please provide the following:

1. A **curriculum vitae** or autobiographical notes that may be useful in designing advertising for you and serve as a resource for a member of our group to introduce you.

2. An **outline** of your proposed presentation in 10-minute segments, e.g.,
 - I. Fourier Processes In Nature
 - II. Fourier Processes In Human Brain
 - III. Discrete Fourier Transform and Neural Net Architecture
 - IV. Patented General Transform Device
 - V. Implementations & Applications

(This summarizes a 50-minute speech.)

3. A list of **equipment** you will need such as an overhead projector, etc. Also please indicate any special physical requirements you may have so we can best accommodate you.

If you have any questions, please give us a call; we'll be glad to help:

(Page 8 omitted) → (a blank form)

IEEE RIG Speaker Hints

How You Can Help You

The following notes are offered as suggestions for fine-tuning your presentation to our group for maximum communication. They are distilled from prior speakers' experiences. We hope they may be helpful to you.

Be self-contained.

Our membership ranges from accountants to physicists and from total novices to sophisticated theorists. Please define your terms and sketch in relevant background before discussing advanced topics, e.g., briefly explain what a Mandelbrot Set is before elaborating on it; those who don't know will be thankful.

Be fun.

Although we are primarily interested in your ideas, we are also interested in you. Personal anecdotes, irrelevant insights into anything, silly jokes and puns are all welcome should the mood strike you.

Be relevant.

The focus of the talk should be some aspect of neural nets, fuzzy logic, biomolecular computing, etc. Other supporting topics such as traditional statistical analysis should probably occupy no more than 20 of the presentation's 50 minutes.

Talk to us.

If you have any questions, please give us a call; we'll be glad to help:

Attachment ⑪

IEEE NEURAL NETWORKS COUNCIL

STANDARDS COMMITTEE

**AN INVITATION TO PARTICIPATE
IN FORMULATING STANDARDS RELATING TO**

ARTIFICIAL NEURAL NETWORKS

FUZZY SYSTEMS

VIRTUAL REALITY

IEEE-ICNN 93 1993 International Conference on Neural Networks

IEEE-ICNN 93 1993 International Conference on Fuzzy Systems

San Francisco

March 28 - April 1, 1993

THE NNC STANDARDS COMMITTEE

Now in its third year of operation, the Standards Committee of the Neural Networks Council (NNC) invites your participation in its working groups and other activities. IEEE is one of the primary standards organizations in the United States and is currently maintaining over 1500 active standards in the electrical and electronic areas. The IEEE Standards Board has established formal procedures for the initiation of standards projects via Project Authorization Requests (PAR), balloting to approve standards, and the eventual publication of standards. The NNC is represented on the IEEE Standards Board and has made standardization one of its principal activities.

At the present three active Working Groups are developing standards in the following areas:

Definition of Terms for Artificial Neural Networks
Guidelines for the Evaluation of Artificial Neural Networks
Hardware and Software Interfaces for Artificial Neural Networks

Additional Working Groups interested in Fuzzy Systems and in Virtual Reality are in the process of formation. These groups interact by e-mail and strive to meet once or twice per year at major conferences. The Standards Committee is composed of the heads of these working groups and some additional members appointed by the president of the NNC.

In the view of the Standards Committee, it is never too early in the life cycle of an emerging technology to commence standardizing activities. The purpose of these efforts is not to attempt to "freeze" developments but rather to enable diverse groups and individuals to begin to collaborate effectively toward a common goal. Experience in many areas has shown that serious development efforts and the investment of substantial funds often take place only after there has been a measure of agreement on the terms, the symbols and the paradigms to be employed. The standards now being generated are intended to assist in defining such common ground and to stimulate further innovations.

The NNC Standards Committee Working Group on ANN Glossary and Symbols

The IEEE-NNC Standards Committee Working Group on Glossary and Symbols has filed a PAR and is in the process of refining the original set of terms. The objective is to create an authoritative compendium of all terms and symbols in current use relating to artificial neural networks. The definitions have been obtained from a number of sources. Controversial definitions have been noted and opinions solicited by email and personal conversation. At the IEEE-ICNN 93/IEEE-FUZZ 93 Conference sessions, additional viewpoints will be collected and assessed. Following this meeting, a revised set of terms will be distributed for further consideration.

The Paradigms Ad Hoc Working Group has been incorporated as a subset of the glossary committee. An appendix giving detailed definitions of paradigms will be constructed as a supplement to the current glossary. In cooperation with the performance committee, the paradigms group will continue to sponsor a paper and programming contest. Paradigm comparisons are of interest. The example sets supplied by the performance committee will also be used for the contest. The examples will be constructed by Robert Shelton. E. Tzanakou will help review contest entries and Mary Lou Padgett, Glossary Chair, will administer the competition. For details about the glossary PAR and/or competitions, contact Mary Lou Padgett.

The NCC Standards Committee Working Group on ANN Performance Evaluation Methodology

In support of the objective to provide a means of evaluation for feed-forward neural networks in forward propagation as well as learning mode, a collection of sample problems will be available by anonymous file transfer protocol (ftp). A problem will consist of

1. Data -- a file of input/output (I/O) pairs. Each I/O pair consisting of a list of floating point numbers of the form: (x[0] x[1]... x[NUMBER INPUTS-1] y[0] y[1] ... y[NUMBER OUTPUTS-1]) where the floating point numbers x[1] are input values and y[1] are output values.
2. A network description providing the number of layers, number of nodes in each layer, and network topology.
3. A file containing weights which, when instantiated in the neural network described by 2, closely approximate the training data.

In addition to the problems, a "read.me" file will be provided which describes the details of file format for items 1-3 above. These format decisions are the subject of and will be determined by another IEEE neural network standards working group, but will initially be consistent with the

formats for NETS, a NASA feed-forward neural network simulator.

The intent of making this set of benchmarks publicly available is to provide sample problems for assessing the speed and fidelity of various implementations of feed-forward neural networks with fixed or adaptive coefficients. The weights included in each benchmark will be results of running a "standard" back-propagation learning algorithm on the training data for a specified number of cycles, and are provided for the purpose of comparison. There is no claim that these problems provided for the stated purposes or of assessment of speed and accuracy of a specific neural network paradigm, are in any way especially well suited for determined the effectiveness of other algorithms, neural network or otherwise.

Contact the chair. Robert Shelton for further information.

The NNC Standards Committee Working Group on ANN Interfaces

The Neural Networks Council Standards Committee has been encouraging the formation of a working group for standards in the area of hardware and software interfaces since IJCNN Baltimore. At that meeting we had a series of discussions and a working group was formed. In this short note the rationale for the existence of our group will be explained as well as solicitation of new ideas and opinions. Please contact the chairman at the address below with your feedback.

In order to develop a standard there must be (A) clearly defined need or problem that a standard would help solve or there must be (B) perception of some kind of future confusion/need that would be headed off if the standard were adopted. In both cases the motivation is fundamentally economic. i.e.. when people perceive that lack of a standard is or will be costly. Type A standards usually evolve when the industry has gotten ahead of itself. Good examples are ISA bus and the VME standard both of which were written down long after millions of dollars worth of incompatible hardware had already been built. Type B standards are not fundamentally different from type A. They just involve a little more forward thinking and more new design rather than clarification of current practice. They tend to be somewhat preemptive. Good examples are the EISA, Futurebus+ and the SCI standards. These standards were evolved in anticipation of future industry needs with broad industry support. Type A standards often evolve by generalizing and 'cleaning up' proprietary designs (AT bus, Versabus). Type B standards often evolve in Committee with engineers hard pressed to keep their prototypes up to date with the evolving spec (Futurebus+, SCI). Once it becomes clear that there will be a forthcoming standard of either type economic pressure comes to bear on the industry participants to align with it.

In reality the distinction between type A and B standards is semantic. There are other taxonomies, and there is a spectrum of variation rather than any hard dichotomy. All standards with any real content tend to evolve with changing A and B emphases. Standards help reduce confusion by 1) promoting uniform use of terminology. 2) clarifying existing practices and their

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realms of applicability, and/or 3) prescribing methods and techniques for new product development. Our working group is looking at how all three of these techniques can be employed to solve problems and head off future confusion.

Due to the evolution of the field and the prevailing computing paradigm, it was rather easy to quickly identify problems in the software area that could directly benefit from standards. In particular, people have already gained broad experience trying to train neural networks on a variety of host simulation systems. They have already been faced with the frustrations of trying to port training data from one host platform to another. They have experience dealing with the problems that derive from not having a standard, and opinions abound about what needs to be done. This was the first well defined project that our working group identified. Through the leadership of Dr. Hal Brown, the subgroup chair on software interface standards, progress continues. Some C code has been written and tests are underway that will lead in the near future, if not to a PAR (Project Authorization Request), then to a working document to start discussion at FUZZ-IEEE in San Francisco on March 28.

The hardware interface area does not have the benefit of broad industry experience in developing large neural network hardware systems. Most hardware accelerators to date have been comprised of one or a few accelerator boards based upon existing industry platforms such as VME or ISA. The chips used in those accelerators range widely across analog neural network chips, all digital RISC or DSP simulators, and hybrid IC's with digital I/O and analog processing. Almost no one has tried to build a large system out of neural network ICs from many different vendors such as to expose incompatibilities of signal levels, protocol, and communication architecture at either the chip or the board level. The scalability of some chips to larger systems is more obvious than with some others. However, the overall system communication architecture for neural 'messages' remains an abyss in need of funded research.

Those of us interested in this area have been grappling with how to tackle this as a standards activity. There is no industry practice to standardize upon and clean up. There is not a wealth of experience to push the frustration-momentum level to the trigger point that precipitates wide acknowledgement of a need for a standard. There are very few well developed ideas in the research literature suggesting how to handle the neural communications and interface issue although there are no doubt some worthy of evaluation. We have entertained the possibility of writing up a set of guidelines on how to embed neural computing systems in existing industry platforms such as VME, Futurebus+ and SCI. However, work on that has yet to get underway. In summary, we welcome comments on whether, and if so, what the hardware interface standards task should be. To have tangible results, the standards process must be driven by a groundswell of broad interest. Without that groundswell this kind of work is more appropriate to a research forum where individual contributors can achieve their goals unhampered by committee processes, or more appropriate to industry product development - both of which will eventually lead to the proper level of friction that triggers demand for a standard.

Please send all comments to Steve Deiss, Chair Interface Standards Working Group.

The NNC Standards Committee Working Group on Virtual Reality

This committee is being formed in the Neural Networks Council to encourage the development of commercial products in the field of VR and to facilitate the development of a robust market for such products. Research people and potential developers of VR products are encouraged to get involved for the benefit of themselves and the industry as a whole. The beginning stages will involve establishing a glossary of terminology. All aspects of hardware and software standards will be considered.

Next October we anticipate a one-day appendum to the VRAIS conference in Seattle, and the summer of 1994 the University of Colorado at Colorado Springs will host a conference dedicated entirely to the formulation of VR standards. This will be a working committee, consisting of anyone who is interested in participating. Every attempt will be made to coordinate efforts with other groups which might be involved in VR standards as well. The committee of the IEEE which will have voting power to formalize the standards will be appointed by the IEEE Neural Networks Council to consider recommendations from this committee and others it deems appropriate.

For further information, please contact Prof. Richard Blade.

The NNC Standards Committee Working Group on Fuzzy Systems

The IEEE-NNC Standards Committee is in the process of forming a working group on fuzzy systems. The initial task of this group will be generating a glossary of terms and examples. For further information, please contact the chair, Hamid Berenji.

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*** CONTESTS AND STANDARDS ***

**SCSC93/BOSTON * SESC93/HUNTSVILLE
SIMTEC93*WNN93*FNN93/SAN FRANCISCO**

**Simulation Papers in All Categories: *ACADEMIC, INDUSTRIAL, GOVERNMENT*
Best Paper Awards: *ALL TOPICS - ALL 3 CONFERENCES***

- 1993 ADI HARVEY ECKENRODE STUDENT PAPER AWARD \$500 SCSC/BOSTON**
- 1993 SESC BEST PAPER AWARD \$500**
- 1993 NASA/IEEE/SCS STANDARDS COMPETITIONS**

- * **PERFORMANCE MEASURES FOR NEURAL NETWORKS**
FEEDFORWARD BACKPROPAGATION USING IEEE-NNC STANDARDS PROBLEMS
- * **COMPARATIVE ALGORITHM PERFORMANCE IN APPLICATIONS**
NEURAL NETWORKS * FUZZY SYSTEMS * GENETIC ALGORITHMS * COMBINATIONS *
VISUALIZATION * FORMAL PAPER AND SOFTWARE DEMONSTRATION REVIEWS

FORMAL PAPERS: WNN WINNERS WILL BE SUBMITTED TO SIMULATION AND/OR TRANSACTIONS FOR FURTHER REVIEW, REVISION AND POSSIBLE PUBLICATION. ALL WINNERS WILL BE PUBLISHED IN THE WNN PROCEEDINGS. REVIEW BY NASA, IEEE, INNS, SPIE AND SCS REFEREES.

SOFTWARE DEMONSTRATIONS: LIVE NASA REVIEW ON SITE IN SAN FRANCISCO.
STUDENT PROJECTS * SBIR DEMOS * EVERYONE WELCOME

*** AWARDS ***

ALL WNN STANDARDS WINNERS WILL RECEIVE A COPY OF THE NASA/NETS SOFTWARE AND AN ESCORTED TOUR OF APPROPRIATE FACILITIES AND LABORATORIES AT NASA/JSC AND NASA/AMES (TRANSPORTATION NOT INCLUDED).

FOR CONTEST RULES AND DETAILS

**CONTACT: MARY LOU PADGETT, VPNA, AUBURN UNIVERSITY
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*** CHAOS AND FRACTALS TECHNICAL ACTIVITY COMMITTEE ***

Holger M. Jaenisch, Chair
Nichols Research Corp.
4040 S. Memorial Pkwy.
Huntsville, AL 35802
(205) 883-1140

Ned E. Clapp, Jr., Vice-Chair
ORNL
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The Chaos and Fractals TAC is an outgrowth of SESC92/Pensacola, chaired by Keith Klukis and Van Sullivan of Martin Marietta. The key TAC organizers submitted outstanding papers and presented tutorials. The 1992 SESC ADI Eckenrode Student Paper Competition winner was "Chaos and Fractal Algorithms Applied to Signal Processing" by J. W. Handley, H. M. Jaenisch, C. A. Bjork, L. T. Richardson and R. T. Carruth, which appeared in the January, 1993 issue of Simulation. Contact the chairs to participate. Columnists, authors, and interested beginners are needed. Organizational meetings will take place at all three conferences.

*** REGIONAL ACTIVITIES ***

Winning Regional Activities are abundant. SESC had a small but high caliber conference in Pensacola, and plans another in Huntsville in October of 1993. Joe Gauthier will be there to give advice about ACSL programs, and serve as Program Chair. The Southwestern Region is basking in the glory of SimTec92 and pitching in to help SCS on many other fronts. The next really big event will be sponsored by the Western Simulation Council, which has recently had two outstanding meetings at Asilomar and Pt. Mugu. Regional Chair Barokh Khoshnevis, USC; SimTec General Chair Ted Lambert; and, Program Chair Martin Dost are working hard and need your support. Colleagues from USC, UCLA (Walter Karplus), UC Berkeley (Lofti Zadeh) and Cal State Chico (Ralph Huntsinger and friends) are all helping in this tremendous joint effort. The Eastern Council is about to host SCSC93 in Boston, which should be its usual smashing success. Many volunteers are still needed to help with all aspects of this meeting. Check the Calendar of Events for Conference Contacts. It is time for the Midwestern Region to host a nice meeting, perhaps at Wright Patterson AFB. Suggestions? Volunteers? Let us know your needs and interests!

Attachment 12

Orlando Organization

| COMMITTEE | SUB-COMMITTEE | CHAIR TITLE | CHAIR | REP FROM EACH CONFERENCE | OTHER MEMBERS |
|---|--------------------|---------------------|-----------------------------|--------------------------|-------------------------|
| Director General Executive | | Director General | Charles J. Robinson | Conference Chair | Directors, M.M. |
| | Mgmt Oversight | Director General | | Conference Chair | Directors |
| Technical Director Technical | | Technical Director | Robert Marks, III | Program Chair | S.C. Coordinators, M.M. |
| | Symposium | Coordinator | | Jacek Zurada | Liaison (optional) |
| | Tutorial | Coordinator | | Liaison (optional) | As needed |
| | Regional (Pacific) | Coordinator | Toshio Fukuda | Liaison (optional) | As needed |
| | Regional (Europe) | Coordinator | | Liaison (optional) | As needed |
| Finance Director Finance | | Finance Director | Swamy Laxminarayan | Finance Chair | S.C. Coordinators |
| | Exhibits | Coordinator | | Liaison (optional) | As needed |
| | Donations | Coordinator | | Liaison (optional) | As needed |
| | Cosponsor | Coordinator | | Liaison (optional) | As needed |
| Communications Director Publications | | Comm. Director | Russell Eberhart | Proceedings Chair | S.C. Coordinators |
| | Proceedings | Coordinator | | Proceedings Chair | M.M., Technical Dir. |
| | CD ROM | Coordinator | | Proceedings Chair | As needed |
| | Video | Coordinator | | Liaison (optional) | As needed |
| | Book | Coordinator | | Liaison (optional) | As needed |
| Publicity | | Comm. Director | | Publicity Chair | |
| | Press | Secretary | | Liaison (optional) | |
| | Brochure | Coordinator | | Liaison (required) | M.M. |
| | Regional | Coordinator | | Regional Chair(s) | |
| Operations Director Operations | | Operations Director | Ratan Guha | Conference Chair | Director General, M.M. |
| | Social/Technical | Coordinator | | Harley Myler | Liaison (optional) |
| | Technical | | Michael Georgiopoulos | | |
| | Local Arrangmnts | Coordinator | Ed Evenson | Liaison (optional) | M.M. |
| | Volunteer | Coordinator | Glenn Portz | Liaison (optional) | |
| Meeting Management, Inc. | | | | | |
| (Registration) | | | | | |
| (Paper Logging) | | | | | |
| Conference Chair - ICNN Conference | | Conference Chair | Steve Rogers | | |
| Conference Chair - FUZZ-IEEE Conference | | Conference Chair | Pierro Bonissone | | |
| Conference Chair - Evolutionary Computation Conference | | Conference Chair | Zbigniew Michalewicz | | |

Orlando Organization

**Conference Chair - ICNN
 Conference**

Steve Rogers

| | | | |
|-------------------|-------------------|------------------|------------------------------|
| Program | Program Chair | Prgrm Comm. | Tech. Director (exofficio) |
| Finance | Finance Chair | As Needed | Finance Director (exofficio) |
| Proceedings | Proceedings Chair | Program Chair | Proceedings Dir. (exofficio) |
| Publicity | Publicity Chair | Brochure Liaison | Communic. Dir. (exofficio) |
| Regional | Regional Chair(s) | mnbrs in region | Communic. Dir. (exofficio) |
| Social (optional) | Social Liaison | | Operations Dir. (exofficio) |

**Conference Chair - FUZZ-IEEE
 Conférence**

Pierro Bonissone

| | | | |
|-------------------|-------------------|------------------|------------------------------|
| Program | Program Chair | Prgrm Comm. | Tech. Director (exofficio) |
| Finance | Finance Chair | As Needed | Finance Director (exofficio) |
| Proceedings | Proceedings Chair | Program Chair | Proceedings Dir. (exofficio) |
| Publicity | Publicity Chair | Brochure Liaison | Communic. Dir. (exofficio) |
| Regional | Regional Chair(s) | mnbrs in region | Communic. Dir. (exofficio) |
| Social (optional) | Social Liaison | | Operations Dir. (exofficio) |

**Conference Chair-Evolutionary Computation
 Conference**

Zbigniew Michalewicz

| | | | |
|-------------------|-------------------|------------------|------------------------------|
| Program | Program Chair | Prgrm Comm. | Tech. Director (exofficio) |
| Finance | Finance Chair | As Needed | Finance Director (exofficio) |
| Proceedings | Proceedings Chair | Program Chair | Proceedings Dir. (exofficio) |
| Publicity | Publicity Chair | Brochure Liaison | Communic. Dir. (exofficio) |
| Regional | Regional Chair(s) | mnbrs in region | Communic. Dir. (exofficio) |
| Social (optional) | Social Liaison | | Operations Dir. (exofficio) |

Attachment 13

| | ICNN | | FUZZ | | EvComp | | Congress | | TOTAL | | |
|---------------------------|-------|-------|-----------|-------|-----------|-------|-----------|-------|----------|-------|-----------|
| | Fee | Count | Amount | Count | Amount | Count | Amount | Count | Amount | Count | Amount |
| INCOME | | | | | | | | | | | |
| REGISTRATION FEE | | | | | | | | | | | |
| Members | | | | | | | | | | | |
| Before 12/93 | \$250 | 100 | \$25,000 | 75 | \$18,750 | 50 | \$12,500 | | \$0 | 225 | \$56,250 |
| Before 3/15 | \$350 | 200 | \$70,000 | 125 | \$43,750 | 50 | \$17,500 | | \$0 | 375 | \$131,250 |
| After 3/15 | \$425 | 400 | \$170,000 | 180 | \$76,500 | 50 | \$21,250 | | \$0 | 630 | \$267,750 |
| | | 700 | \$265,000 | 380 | \$139,000 | 150 | \$51,250 | 0 | \$0 | 1230 | \$455,250 |
| Non-Members | | | | | | | | | | | |
| Before 12/93 | \$300 | 100 | \$30,000 | 50 | \$15,000 | 50 | \$15,000 | | \$0 | 200 | \$30,000 |
| Before 3/15 | \$420 | 200 | \$84,000 | 60 | \$25,200 | 50 | \$21,000 | | \$0 | 310 | \$76,200 |
| After 3/15 | \$495 | 200 | \$99,000 | 80 | \$39,600 | 50 | \$24,750 | | \$0 | 330 | \$148,350 |
| | | 500 | \$114,000 | 190 | \$79,800 | 150 | \$60,750 | 0 | \$0 | 840 | \$254,550 |
| Students | | | | | | | | | | | |
| Before 12/93 | \$70 | 25 | \$1,750 | 15 | \$1,050 | 10 | \$700 | | \$0 | 50 | \$3,500 |
| Before 3/15 | \$90 | 75 | \$6,750 | 55 | \$4,950 | 30 | \$2,700 | | \$0 | 160 | \$14,400 |
| After 3/15 | \$110 | 100 | \$11,000 | 70 | \$7,700 | 40 | \$4,400 | | \$0 | 210 | \$23,100 |
| | | 200 | \$19,500 | 140 | \$13,700 | 80 | \$7,800 | 0 | \$0 | 420 | \$41,000 |
| One-Day | \$150 | | | | | | | 100 | \$15,000 | 100 | \$15,000 |
| REGISTRATION TOTAL | | | | | | | | | | | |
| | | 1100 | \$398,500 | 710 | \$232,500 | 380 | \$119,800 | 100 | \$15,000 | 2590 | \$765,800 |
| | | | \$326,500 | | | | | | | | \$745,300 |

| | ICNN | FUZZ | EvComp | Congress | TOTAL | | | | | |
|---------------------------------|-------|----------|--------|----------|-------|----------|-------|----------|------|-----------|
| Fee | Count | Amount | Count | Amount | Count | Amount | Count | Amount | | |
| PROCEEDINGS | | | | | | | | | | |
| Fee | Count | Amount | Count | Amount | Count | Amount | Count | Amount | | |
| Each issue (pgs) | 3000 | | 2000 | | 1200 | | 240 | 6440 | | |
| Selling Prices | | | | | | | | | | |
| PAPER | | | | | | | | | | |
| Book Brooker | | \$60 | | \$40 | | \$30 | | \$30 | | |
| CONGRESS PROC. PACKAGE | | | | | | | | | | |
| Member on-site | | \$105 | | \$105 | | \$105 | | \$30 | | |
| Non-Memb on-site | | \$105 | | \$105 | | \$105 | | \$30 | | |
| Student | | | | | | | | | | |
| CD ROM | | | | | | | | | | |
| Book Brooker (CD ROM) | | \$20 | | \$20 | | \$20 | | \$20 | | |
| 2nd Medium (CD or Paper) | | | | | | | | | | |
| Member on-site | | \$20 | | \$20 | | \$20 | | \$20 | | |
| Non-Memb on-site | | \$20 | | \$20 | | \$20 | | \$20 | | |
| VIDEO | | | | | | | | | | |
| Member on-site - first 100 | | \$33 | | \$33 | | \$33 | | \$33 | | |
| Non-Memb on-site - first 100 | | \$33 | | \$33 | | \$33 | | \$33 | | |
| Member on-site - after 100 | | \$22 | | \$22 | | \$22 | | \$22 | | |
| Non-Memb on-site - after 100 | | \$22 | | \$22 | | \$22 | | \$22 | | |
| Additional Sales | | | | | | | | | | |
| PAPER | | | | | | | | | | |
| Book Brooker | 400 | \$24,000 | 360 | \$14,400 | 100 | \$3,000 | 300 | \$9,000 | 1160 | \$50,400 |
| CONGRESS PROC. PACKAGE | | | | | | | | | | |
| Member on-site | 150 | \$15,750 | 150 | \$15,750 | 100 | \$10,500 | 50 | \$1,500 | 450 | \$43,500 |
| Non-Memb on-site | 150 | \$15,750 | 150 | \$15,750 | 100 | \$10,500 | 50 | \$1,500 | 450 | \$43,500 |
| | 700 | \$35,500 | 660 | \$45,900 | 300 | \$24,000 | 400 | \$12,000 | 2060 | \$137,400 |
| CD ROM | | | | | | | | | | |
| Book Brooker | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 |
| 2nd Medium (CD or Paper) | | | | | | | | | | |
| Member on-site | 100 | \$2,000 | 100 | \$2,000 | 100 | \$2,000 | 0 | \$0 | 300 | \$6,000 |
| Non Memb on-site | 100 | \$2,200 | 100 | \$2,200 | 100 | \$2,200 | 0 | \$0 | 300 | \$6,600 |
| NNC for later use | | | | | | | | | | |
| | 200 | \$4,200 | 200 | \$4,200 | 200 | \$4,200 | 0 | \$0 | 600 | \$12,600 |
| VIDEO | | | | | | | | | | |
| Member on-site - first 100 | 50 | \$1,650 | 50 | \$1,650 | 50 | \$1,650 | | | | \$4,950 |
| Non-Memb on-site - first 100 | 50 | \$1,650 | 50 | \$1,650 | 50 | \$1,650 | | | | \$4,950 |
| Member on-site | 50 | \$1,100 | 50 | \$1,100 | 0 | \$0 | 0 | \$0 | | \$2,200 |
| Non Memb on-site | 50 | \$1,100 | 50 | \$1,100 | 0 | \$0 | 0 | \$0 | | \$2,200 |
| | | \$5,500 | | \$5,500 | | \$3,300 | | \$0 | | \$14,300 |
| TOTAL ADD SALES | | \$59,700 | | \$50,100 | | \$28,200 | | \$12,000 | | \$150,000 |

| | ICNN | | FUZZ | | EvComp | | Congress | | TOTAL | | |
|-------------------------|---------|-------|------------------|-------|------------------|-------|------------------|-------|------------------|-------|--------------------|
| | Fee | Count | Amount | Count | Amount | Count | Amount | Count | Amount | Count | Amount |
| SOCIAL FUNCTIONS | | | | | | | | | | | |
| Extra Ticket Fee | | | \$15 | | \$15 | | \$15 | | \$30 | | |
| Extra Ticket sales | | 50 | \$750 | 50 | \$750 | 50 | \$750 | 100 | \$3,000 | | \$5,250 |
| TUTORIALS | | | | | | | | | | | |
| Number and avg cost | | | | | | | | 18 | \$300 | | |
| Extra tutorial cost | | | | | | | | | \$100 | | |
| Attend and total sales | | | | | | | | | \$0 | | \$0 |
| Attend another | | | | | | | | 0 | \$0 | | \$0 |
| Total | | | \$37,000 | | \$74,000 | | \$54,000 | | \$0 | | \$165,000 |
| Transfer % | | 0 | | 0 | | 0 | | 100 | | | |
| Transfer amount | | | \$0 | | \$0 | | \$0 | | \$0 | | |
| Tutorial TOTAL | | | \$0 | | \$0 | | \$0 | | \$165,000 | | \$165,000 |
| EXHIBITS | | | | | | | | | | | |
| Number and cost-educ | \$200 | | | | | | | 20 | \$4,000 | | \$4,000 |
| Number and cost-pubs | \$500 | | | | | | | 10 | \$5,000 | | \$5,000 |
| Number and cost-inds | \$1,000 | | | | | | | 45 | \$45,000 | | \$45,000 |
| | | | | | | | | 65 | \$54,000 | | \$54,000 |
| Transfer % | | 0 | | 0 | | 0 | \$0 | 100 | | | |
| Transfer amount | | | \$0 | | \$0 | | \$0 | | \$0 | | |
| EXHIBIT TOTAL | | | \$0 | | \$0 | | \$0 | | \$54,000 | | \$54,000 |
| DONATIONS | | | | | | | | | | | |
| Targeted | | | \$5,000 | | \$4,000 | | \$3,000 | | \$10,000 | | \$22,000 |
| Grants | | | \$10,000 | | \$8,000 | | \$6,000 | | \$20,000 | | \$44,000 |
| | | | \$15,000 | | \$12,000 | | \$9,000 | | \$30,000 | | \$66,000 |
| TOTAL INCOME | | | \$473,950 | | \$295,350 | | \$157,750 | | \$279,000 | | \$1,206,050 |

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| | ICNN | | FUZZ | | EvComp | | Congress | | TOTAL | | |
|----------------------------|-------|-------|----------|-------|----------|-------|----------|-------|------------|-------|-----------|
| | Fee | Count | Amount | Count | Amount | Count | Amount | Count | Amount | Count | Amount |
| EXPENSES | | | | | | | | | | | |
| GENERAL | | | | | | | | | | | |
| Conference Managemnt | | | | | | | | | | | |
| Base | \$23K | 1400 | | 710 | | 380 | | 100 | \$23,000 | 2590 | |
| Transfer | | 54% | \$12,432 | 27% | \$6,305 | 15% | \$3,375 | 4% | (\$22,112) | | |
| | | | \$12,432 | | \$6,305 | | \$3,375 | | \$888 | | \$23,000 |
| Registration Services | | | | | | | | | | | |
| Base | \$24K | | | | | | | 1200 | \$24,000 | | |
| Over 1200 | \$20 | | | | | | | 1390 | \$27,800 | | |
| Transfer number & % | | | 54% | | 27% | | 15% | | 4% | | |
| Transfer amount | \$20 | | \$28,000 | | \$14,200 | | \$7,600 | | (\$49,800) | | |
| | | | \$28,000 | | \$14,200 | | \$7,600 | | \$2,000 | | \$51,800 |
| Discretionary Funds | | | | | | | | | | | |
| | | | \$5,000 | | \$5,000 | | \$3,000 | | \$10,000 | | \$23,000 |
| Administrative Costs | | | | | | | | | | | |
| On Site Equip rent | | | | | | | | | | | |
| | | | | | | | | | \$5,000 | | |
| Xerox | | | \$2,500 | | \$2,000 | | \$1,000 | | \$3,000 | | |
| Secr support | | | \$3,000 | | \$2,500 | | \$1,500 | | \$5,000 | | |
| non-publcty postage | | | \$1,200 | | \$1,000 | | \$800 | | \$2,000 | | |
| phone, fax | | | \$600 | | \$500 | | \$400 | | \$1,000 | | |
| travel (not pgm committee) | | | \$2,500 | | \$2,500 | | \$2,500 | | \$10,000 | | |
| auditing | | | \$4,000 | | \$3,000 | | \$2,000 | | \$5,000 | | |
| security | | | | | | | | | \$4,000 | | |
| insurance | | | \$400 | | \$400 | | \$400 | | \$400 | | |
| Stationary | | | \$1,500 | | \$1,200 | | \$900 | | \$4,000 | | |
| Signs and badges | | | | | | | | | \$7,500 | | |
| misc supplies | | | \$1,000 | | \$1,000 | | \$1,000 | | \$2,000 | | |
| | | | \$16,700 | | \$14,100 | | \$10,500 | | \$48,900 | | \$90,200 |
| GENERAL TOTAL | | | | | | | | | | | |
| | | | \$62,132 | | \$39,605 | | \$24,475 | | \$61,788 | | \$188,000 |

| | ICNN | | FUZZ | | EvComp | | Congress | | TOTAL | | |
|---|---------|-------|----------|-------|----------|-------|----------|-----------|------------|-------|-----------|
| | Fee | Count | Amount | Count | Amount | Count | Amount | Count | Amount | Count | Amount |
| TECHNICAL | | | | | | | | | | | |
| Paper Statistics | | | | | | | | | | | |
| Accepted (# and Avg length) | | 500 | 5 | 300 | 5 | 200 | 6 | 43 | 6 | | |
| Rejected (#) | | 250 | | 150 | | 100 | | 0 | | | |
| # Manuscripts & Pages | | 750 | 2,500 | 450 | 1,500 | 300 | 1,200 | 43 | 258 | 1,543 | |
| Manuscript Handling | | | | | | | | | | | |
| Base | \$24K | | | | | | | 1200 | \$24,000 | | |
| Over 1200 | \$20 | | | | | | | 343 | \$6,860 | | |
| Transfer number & % | | 750 | 49% | 450 | 29% | 300 | 19% | 43 | 3% | | |
| Transfer amount | \$20 | | \$15,000 | | \$9,000 | | \$6,000 | | (\$30,000) | | |
| | | | \$15,000 | | \$9,000 | | \$6,000 | | \$860 | | \$30,860 |
| AV Rental | | | | | | | | | | | |
| # Platform & #Posters | | 350 | 150 | 200 | 100 | 100 | 100 | 43 | 0 | | |
| Platform | | | | | | | | 693 | \$10,000 | | |
| Poster boards | | | | | | | | 350 | \$4,000 | | |
| Platform transfer | \$14 | | \$5,051 | | \$2,886 | | \$1,443 | | (\$9,380) | | |
| Poster Transfer | \$11 | | \$1,714 | | \$1,143 | | \$1,143 | | (\$4,000) | | |
| | | | \$6,765 | | \$4,029 | | \$2,586 | | \$620 | | \$14,000 |
| Program Committee | | | | | | | | | | | |
| Mailing exp | | | \$1,000 | | \$800 | | \$500 | | \$500 | | |
| Secr Expenses | \$5 | | \$3,750 | | \$2,250 | | \$1,500 | | \$215 | | |
| Travel + Lodging | | | \$12,000 | | \$8,000 | | \$5,000 | | \$5,000 | | |
| | | | \$16,750 | | \$11,050 | | \$7,000 | | \$5,715 | | \$40,515 |
| Scholarship(non Tutorial/ non Symposium/non student) | | | | | | | | | | | |
| Registration | \$250 | 14 | \$3,500 | 7 | \$1,750 | 3 | \$750 | | | | |
| Travel | \$400 | 7 | \$2,800 | 4 | \$1,600 | 2 | \$800 | | | | |
| Travel | \$800 | 7 | \$5,600 | 3 | \$2,400 | 2 | \$1,600 | | | | |
| | | | \$11,900 | | \$5,750 | | \$3,150 | | | | \$20,800 |
| Symposium | | | | | | | | | | | |
| Registration | \$250 | | | | | | | 43 | \$10,750 | | |
| AV Rental | | | | | | | | See Above | | | |
| Administr Expense | | | | | | | | | \$1,500 | | |
| Special Brochure | | | | | | | | See below | | | |
| Manuscript Handling | | | | | | | | See Above | | | |
| Travel | \$500 | | | | | | | 20 | \$10,000 | | |
| Travel | \$1,000 | | | | | | | 23 | \$23,000 | | |
| | | | | | | | | | \$45,250 | | \$45,250 |
| Tutorials | | | | | | | | | | | |
| Registration waiver | \$250 | | | | | | | 18 | \$4,500 | | |
| Travel | \$700 | | | | | | | 18 | \$12,600 | | |
| Handouts | \$400 | | | | | | | 18 | \$7,200 | | |
| Admin costs | | | | | | | | | \$2,000 | | |
| AV Rental+ signs | | | | | | | | | \$1,000 | | |
| | | | | | | | | | \$27,300 | | \$27,300 |
| Transfer % | | 0 | | 0 | | 0 | | 100 | | | |
| Transfer amount | | | \$0 | | \$0 | | \$0 | | \$0 | | |
| Tutorial TOTAL | | | \$0 | | \$0 | | \$0 | | \$27,300 | | \$27,300 |
| TOTAL TECHNICAL | | | | | | | | | | | |
| | | | \$50,415 | | \$29,829 | | \$18,736 | | \$79,745 | | \$178,725 |

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| | ICNN | | FUZZ | | EvComp | | Congress | | TOTAL | | |
|-----------------------------------|--------|-------|----------|-------|----------|-------|----------|-------|-----------|-------|-----------|
| | Fee | Count | Amount | Count | Amount | Count | Amount | Count | Amount | Count | Amount |
| OPERATIONS | | | | | | | | | | | |
| Social | | | | | | | | | | | |
| Coffee | \$24 | 1050 | \$25,200 | 532.5 | \$12,780 | 285 | \$6,840 | 5 | \$120 | | |
| Main Rcpion | \$50 | 1050 | \$52,500 | 532.5 | \$26,625 | 285 | \$14,250 | 100 | \$5,000 | | |
| Topic Reception | \$10 | 700 | \$7,000 | 355 | \$3,550 | 190 | \$1,900 | 100 | \$1,000 | | |
| Track Chair reception | \$60 | 70 | \$4,200 | 35 | \$2,100 | 19 | \$1,140 | 100 | \$6,000 | | |
| | | | \$63,700 | | \$32,275 | | \$17,290 | | \$12,000 | | \$125,265 |
| Volunteer | | | | | | | | | | | |
| Student Vol Registr | \$70 | 11 | \$770 | 6 | \$420 | 3 | \$210 | 1 | \$70 | | |
| Student Vol Travel | \$400 | 5 | \$2,000 | 3 | \$1,200 | 3 | \$1,200 | 4 | \$1,600 | | |
| Section Registration | \$250 | | | | | | | 5 | \$1,250 | | |
| | | | \$2,770 | | \$1,620 | | \$1,410 | | \$2,920 | | \$8,720 |
| Tours | | | | | | | | | | | |
| Tour Busses | \$300 | | | | | | | 5 | \$1,500 | | |
| | | | | | | | | | \$1,500 | | \$1,500 |
| OPERATIONS TOTAL | | | | | | | | | | | |
| | | | \$66,470 | | \$33,895 | | \$18,700 | | \$16,420 | | \$135,485 |
| COMMUNICATIONS (PUBLICITY) | | | | | | | | | | | |
| General Brochure | | | | | | | | | | | |
| Layout and pre-press | \$60 | | | | | | | 50 | \$3,000 | | |
| Printing | \$0.50 | | | | | | | 30000 | \$15,000 | | |
| Mailing Lists/Labels | \$0.05 | | | | | | | 30000 | \$1,500 | | |
| Postage | \$1.00 | | | | | | | 30000 | \$30,000 | | |
| Mailing House | \$0.05 | | | | | | | 30000 | \$1,500 | | |
| | | | | | | | | | \$51,000 | | \$51,000 |
| Special Brochure | | | | | | | | | | | |
| Layout | \$60 | 50 | \$3,000 | 50 | \$3,000 | 50 | \$3,000 | 50 | \$3,000 | 200 | |
| Printing | \$0.50 | 10000 | \$5,000 | 10000 | \$5,000 | 4000 | \$2,000 | 10000 | \$5,000 | 34000 | |
| Mailing Lists/Labels | \$0.05 | 10000 | \$500 | 10000 | \$500 | 4000 | \$200 | 10000 | \$500 | 11000 | |
| Postage | \$1.00 | 10000 | \$10,000 | 10000 | \$10,000 | 4000 | \$4,000 | 10000 | \$10,000 | 11000 | |
| Mailing House | \$0.05 | 10000 | \$500 | 10000 | \$500 | 4000 | \$200 | 10000 | \$500 | 11000 | |
| | | | \$19,000 | | \$19,000 | | \$9,400 | | \$19,000 | | \$66,400 |
| General Poster | | | | | | | | | | | |
| Layout | \$50 | | | | | | | 30 | \$1,500 | 30 | |
| Printing | \$4.00 | | | | | | | 2000 | \$8,000 | 2000 | |
| Mailing Lists/Labels | \$0.05 | | | | | | | 500 | \$25 | 500 | |
| Postage | \$1.00 | | | | | | | 500 | \$500 | 500 | |
| Mailing House | \$0.05 | | | | | | | 500 | \$25 | 500 | |
| | | | | | | | | | \$10,050 | | \$10,050 |
| Special Poster | | | | | | | | | | | |
| Layout | \$50 | 20 | \$1,000 | 20 | \$1,000 | 20 | \$1,000 | | | 60 | |
| Printing | \$4.00 | 300 | \$1,200 | 200 | \$800 | 100 | \$400 | | | 600 | |
| Mailing Lists/Labels | \$0.05 | 300 | \$15 | 200 | \$10 | 100 | \$5 | | | 600 | |
| Postage | \$1.00 | 300 | \$300 | 200 | \$200 | 100 | \$100 | | | 600 | |
| Mailing House | \$0.05 | 300 | \$15 | 200 | \$10 | 100 | \$5 | | | 600 | |
| | | | \$2,530 | | \$2,020 | | \$1,510 | | | | \$6,060 |
| Advertising | | | | | | | | | | | |
| IEEE Pubs | | | \$5,000 | | \$5,000 | | \$5,000 | | \$10,000 | | |
| Elsewhere | | | \$5,000 | | \$5,000 | | \$5,000 | | \$10,000 | | |
| | | | \$10,000 | | \$10,000 | | \$10,000 | | \$20,000 | | \$50,000 |
| Give-aways | | | | | | | | | | | |
| Cost | \$4 | | | | | | | 3000 | \$12,000 | 3000 | \$12,000 |
| PUBLICITY TOTALS | | | | | | | | | | | |
| | | | \$31,530 | | \$31,020 | | \$20,910 | | \$112,050 | | \$195,510 |

\$250,000

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| | ICNN | | FUZZ | | EvComp | | Congress | | TOTAL | | |
|--------------------------------|------|-------|-----------|-------|-----------|-------|-----------|-------|------------|-------|-----------|
| | Fee | Count | Amount | Count | Amount | Count | Amount | Count | Amount | Count | Amount |
| PUBLICATIONS | | | | | | | | | | | |
| Advanced Program | | | | | | | | | | | |
| Layout | \$50 | | | | | | | 30 | \$1,500 | 30 | |
| Printing | \$2 | | | | | | | 4000 | \$8,000 | 4000 | |
| Mailing Lists/Labels | \$0 | | | | | | | 4000 | \$200 | 4000 | |
| Postage | \$1 | | | | | | | 4000 | \$4,000 | 4000 | |
| Mailing House | \$0 | | | | | | | 4000 | \$200 | 4000 | |
| | | | | | | | | | \$13,900 | | \$13,900 |
| Final Program | | | | | | | | | | | |
| Layout | \$50 | | | | | | | 30 | \$1,500 | 30 | |
| Printing | \$2 | | | | | | | 4000 | \$8,000 | 4000 | |
| Mailing Lists/Labels | \$0 | | | | | | | 4000 | \$200 | 4000 | |
| Postage | \$1 | | | | | | | 4000 | \$4,000 | 4000 | |
| Mailing House | \$0 | | | | | | | 4000 | \$200 | 4000 | |
| | | | | | | | | | \$13,900 | | \$13,900 |
| Paper Proceedings Count | | | | | | | | | | | |
| Registration (from above) | | 1200 | | 570 | | 300 | | 100 | | 2170 | |
| Additional sales (above) | | 700 | | 660 | | 300 | | 400 | | 2060 | |
| Overprint | | 300 | | 270 | | 100 | | 400 | | 1070 | |
| Total Printing | | 2200 | | 1500 | | 700 | | 900 | | 5300 | |
| price per page & pages | | 3000 | 0.011 | 2000 | 0.012 | 1200 | 0.013 | 240 | 0.013 | | |
| Cost | | | \$72,600 | | \$36,000 | | \$10,920 | | \$2,808 | | \$122,328 |
| Box & Shipping | | | | | | | | | | | |
| | \$2 | | \$4,400 | | \$3,000 | | \$1,400 | 4000 | \$1,800 | | \$10,600 |
| CD ROM | | | | | | | | | | | |
| Student Count | | 200 | | 140 | | 80 | | | | | |
| Second Medium | | 200 | | 200 | | 200 | | | | | |
| Conference Package | | 700 | | 660 | | 300 | | | | | |
| OverPrint | | 400 | | 400 | | 200 | | | | | |
| | | 1500 | | 1400 | | 780 | | | | | |
| Cost | | | \$14 | | \$14 | | \$14 | | | | |
| total | | | \$21,000 | | \$19,600 | | \$10,920 | | | | \$51,520 |
| Video | | | | | | | | | | | |
| All Costs | | | \$10,000 | | \$10,000 | | \$10,000 | | | | \$30,000 |
| TOTAL PROCEEDINGS | | | | | | | | | | | |
| | | | \$108,000 | | \$68,600 | | \$33,240 | | \$32,408 | | \$242,248 |
| EXHIBITS | | | | | | | | | | | |
| cost | | | | | | | | | \$20,000 | | \$20,000 |
| TOTAL EXPENSE | | | | | | | | | | | |
| | | | \$318,547 | | \$202,949 | | \$116,060 | | \$322,412 | | \$959,968 |
| SURPLUS | | | | | | | | | | | |
| | | | \$155,403 | | \$92,401 | | \$41,690 | | (\$43,412) | | \$246,082 |

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| | ICNN | | FUZZ | | EvComp | | Congress | | TOTAL | | |
|---------------------|------|-------|-----------|-------|-----------|-------|-----------|-------|------------|-------|-------------|
| | Fee | Count | Amount | Count | Amount | Count | Amount | Count | Amount | Count | Amount |
| INCOME | | | | | | | | | | | |
| TOTAL REGISTRATION | | | \$398,500 | | \$232,500 | | \$119,800 | | \$15,000 | | \$765,800 |
| TOTAL ADD SALES | | | \$59,700 | | \$50,100 | | \$28,200 | | \$12,000 | | \$150,000 |
| TOTAL SOCIAL FUNCT. | | | \$750 | | \$750 | | \$750 | | \$3,000 | | \$5,250 |
| TOTAL TUTORIALS | | | \$0 | | \$0 | | \$0 | | \$165,000 | | \$165,000 |
| TOTAL EXHIBITS | | | \$0 | | \$0 | | \$0 | | \$54,000 | | \$54,000 |
| TOTAL DONATIONS | | | \$15,000 | | \$12,000 | | \$9,000 | | \$30,000 | | \$66,000 |
| TOTAL INCOME | | | \$473,950 | | \$295,350 | | \$157,750 | | \$279,000 | | \$1,206,050 |
| EXPENSES | | | | | | | | | | | |
| TOTAL GENERAL | | | \$62,132 | | \$39,605 | | \$24,475 | | \$61,788 | | \$188,000 |
| TOTAL TECHNICAL | | | \$50,415 | | \$29,829 | | \$18,736 | | \$79,745 | | \$178,725 |
| TOTAL OPERATIONS | | | \$66,470 | | \$33,895 | | \$18,700 | | \$16,420 | | \$135,485 |
| TOTAL PUBLICITY | | | \$31,530 | | \$31,020 | | \$20,910 | | \$112,050 | | \$195,510 |
| TOTAL PROCEEDINGS | | | \$108,000 | | \$68,600 | | \$33,240 | | \$32,408 | | \$242,248 |
| TOTAL EXHIBITS | | | \$0 | | \$0 | | \$0 | | \$20,000 | | \$20,000 |
| TOTAL EXPENSES | | | \$318,547 | | \$202,949 | | \$116,060 | | \$322,412 | | \$959,968 |
| SURPLUS/(LOSS) | | | \$155,403 | | \$92,401 | | \$41,690 | | (\$43,412) | | \$246,082 |

SUMMARY OF ACTIONS
Technical Activities Board
June 30, 1993

The following actions were taken during the Technical Activities Board meeting held June 30, 1993 at the Caribe Hilton Hotel, San Juan, Puerto Rico.

1. The Society Presidents' Forum announced that Glen N. Williams was elected Chairman of the Society Presidents' Forum for the term 1994.
2. Announced Jan Brown as Chair of the TAB Nominations and Appointments Committee for the term mid- year 1993 to mid-year 1994.
3. The Society Presidents' Forum announced that Harold L. Flescher and Suzanne R. Nagel were elected Society President Representatives to the TAB Nominations and Appointments Committee for the term mid-year 1993 to mid-year 1995.
4. The Division Directors' Forum announced that Frederick T. Andrews and Robert A. Dent were elected Division Director Representatives to the TAB Nominations and Appointments Committee for the term mid-year 1993 to mid-year 1995.
5. As requested by the TAB Periodicals Council, approved the title change of IEEE Transactions on Electrical Insulation to IEEE Transactions on Dielectrics and Electrical Insulation beginning in 1994.
6. As requested by the TAB Periodicals Council, approved a new IEEE Computational Science and Engineering Magazine to be published by the IEEE Computer Society beginning in 1994.
7. Approved the new IEEE Computational Science and Engineering Magazine as an Interdisciplinary Publication at a 1994 subscription rate of \$20.
8. As requested by the TAB Periodicals Council, approved a new IEEE Multimedia Magazine to be published by the IEEE Computer Society beginning in 1994.
9. Approved the new IEEE Multimedia Magazine as an Interdisciplinary Publication at a 1994 subscription rate of \$20.
10. As requested by the TAB Periodicals Council, approved a new IEEE Robotics and Automation Magazine to be published by the IEEE Robotics and Automation Society beginning in 1994.
11. Approved a new IEEE Personal Communications Magazine to be published by the IEEE Communications Society beginning in 1994.

TAB Summary of Actions
Page 2

12. Approved the new IEEE Personal Communications Magazine as a General Interest Publication at a 1994 subscription rate of \$18.
13. As requested by the TAB Periodicals Council, approved the IEEE Aerospace and Electronics Systems Magazine as a General Interest Publication at a 1994 subscription rate of \$30.
14. As requested by the TAB Periodicals Council, took action on the following items related to the IEEE CHMT Society:
 - A. Approved the title change of the IEEE Transactions on Components, Hybrids, and Manufacturing Technology to IEEE Transactions on Components, Packaging and Manufacturing Technology beginning in 1994, to appropriately reflect the Society's name change.
 - B. Approved splitting the Transactions into two publications beginning in 1994 titled IEEE Transactions on Components, Packaging and Manufacturing Technology, Part A and IEEE Transactions on Components, Packaging and Manufacturing Technology, Part B: Advanced Packaging.
 - C. Approved the IEEE Transactions on Components, Packaging and Manufacturing Technology, Part B: Advanced Packaging as an Interdisciplinary Publication at a 1994 subscription rate of \$15.
15. As requested by the TAB Periodicals Council, approved a proposal to allow the IEEE Components, Hybrids, and Manufacturing Technology Society to enter into a Sister Society relationship with the American Society of Mechanical Engineers (ASME) and the American Society for Quality Control (ASQC) and offer its Publication(s) IEEE Transactions on Components, Hybrids, and Manufacturing Technology at a Sister Society subscription rate of no less than 1.5X the member rate to ASME and ASQC.
16. Approved the 1994 Magazine and Newsletter Rates as submitted by the TAB Periodicals Council.
17. As requested by the TAB Liaison Council, approved the TAB Public Relations Committee Charter.
18. As requested by the TAB Products Council, approved a change in the name of the TAB CD-ROM Committee to the TAB Electronic Information Dissemination Committee and approved the Charter of the TAB Electronic Information Dissemination Committee as submitted.

TAB Summary of Actions

Page 3

19. As requested by the TAB Products Council, endorsed for recommendation of approval by the IEEE Board of Directors the concept of creating an Institutional Research Office.
20. As requested by the TAB Products Council, endorsed in principle a proposal to extend exclusive distribution rights to a vendor for non-member periodicals in India pending review and comment on the contract as distributed by interested Society/Council Presidents within two weeks.
21. As requested by the TAB Products Council, approved the expenditure of up to \$8,000 from TAB reserves for consultation and staff support to finalize all details of the "Proposal for Electronic Delivery of IEEE Publications" in cooperation with the IEEE Publications Board. The final proposal to be approved by TAB and the IEEE Publications Board during their Fall 1993 meetings.
22. As requested by the TAB Technical Meetings Council, endorsed in principle a new IEEE Policy Statement regarding the ethics of submitting papers and/or abstracts.
23. Approved the TAB Steering Committee on Design and Manufacturing Engineering Charter.
24. Endorsed for recommendation of approval by the IEEE Board of Directors modifications to IEEE Bylaws 310.1, 310.4(5) and 310.5 governing the operations of the Technical Activities Board.
25. Endorsed for recommendation of approval by the IEEE Board of Directors modifications to IEEE Bylaw 102.1 outlining Life Member eligibility.
26. Endorsed for recommendation of approval by the IEEE Board of Directors modifications to IEEE Bylaw 314.10 governing petition voting.
27. As requested by the TAB Periodicals Council, endorsed a new IEEE Policy Statement 6.23, outlining guidelines for IEEE Newsletters, for recommendation of approval by the IEEE Board of Directors.
28. As requested by the TAB Periodicals Council, endorsed modifications to IEEE Policy Statement 6.13, governing approval of new publications, for recommendation of approval by the IEEE Board of Directors.
29. As requested by the TAB Periodicals Council, endorsed modifications to IEEE Policy Statement 6.4, governing guidelines for publishing periodicals outside the Institute, for recommendation of approval by the IEEE Board of Directors.

TAB Summary of Actions
Page 4

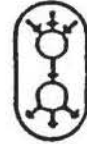
30. As requested by the TAB Periodicals Council, endorsed the concept of a new IEEE Metric Policy.
31. Endorsed for recommendation of approval by the IEEE Board of Directors modifications to IEEE Policy Statement 11.4.D regarding contributions offered by Regions, Councils, Sections or Societies.
32. As requested by the TAB Liaison Council, endorsed modifications to IEEE Policy Statement 3.3 governing Recognized Educational Programs (REP), for recommendation of approval by the IEEE Board of Directors.
33. As requested by the TAB Finance Committee, endorsed the 1994 Society/Council membership fees, publication rates and schedules for recommendation of approval by the IEEE Executive Committee.
34. As requested by the TAB Finance Committee, endorsed the 1994 Student Society fees and publication rates for recommendation of approval by the IEEE Executive Committee.
35. As requested by the TAB Finance Committee, endorsed the 1994 Section Library and Student Branch Library subscription rates for recommendation of approval by the IEEE Executive Committee.
36. As requested by the TAB Finance Committee, endorsed the 1994 non member subscription prices, including the All Periodicals Package for recommendation of approval by the IEEE Executive Committee.
37. As requested by the TAB Finance Committee, approved the 1994 TAB Budget.
38. Requested the IEEE Executive Committee to direct the IEEE Information Services Oversight Committee to develop a set of metrics to determine proper allocation of Information Services costs based on usage/benefits.
39. Endorsed the revised Field of Interest Statement of the IEEE Electron Devices Society for recommendation of approval by the IEEE Executive Committee.
40. Approved a request that future TAB Administration Council meetings not be held unless the Vice President - Technical Activities determines that one or more issues must be handled, in person, between scheduled TAB meetings.
41. Based on the success of the Society Chapter Coordinators Meeting held the beginning of 1993, requested the TAB Liaison Council to organize another one-day Society Chapter Coordinators meeting with the intent of reaching a broader audience.

TAB Summary of Actions
Page 5

42. Due to high travel costs that may be incurred from volunteers outside Regions 1-6, opposed endorsing modifications to IEEE Policy Statement 11.6 governing travel funds for major Boards and Committees.
43. As requested by the RAB/TAB Transnational Committee, approved a proposal to increase electronic communication among Chapters, collect information on this activity and encourage Societies to appoint Chapter Coordinators with access to electronic communication. TAB to report on the status of these activities during its November, 1993 meeting.
44. Approved revisions to the following awards:
 - IEEE Nuclear and Plasma Sciences Society Radiation Effects Award
 - IEEE Vehicular Technology Society Best Paper Award
45. Approved the establishment of the following awards:
 - IEEE Aerospace and Electronics Systems Society Radar Systems Panel Award
 - IEEE Computer Society Wing Toy Best Student Paper Award
 - IEEE Computer Society Hans Karlsson Award
 - IEEE Computer Society Sidney Fernbach Memorial Award
 - IEEE Electron Devices Society Distinguished Service Award
 - IEEE Geoscience and Remote Sensing Society Interactive Session Prize Paper Award
 - IEEE Nuclear and Plasma Sciences Society Plasma Sciences and Applications Award
 - IEEE Nuclear and Plasma and Sciences Society Early Achievement Award
 - IEEE Signal Processing Society Magazine Award
 - IEEE Vehicular Technology Society Avant Garde Award
 - IEEE Vehicular Technology Society Neal Shepherd Memorial Best Propagation Paper Award



NEURAL NETWORKS COUNCIL



Robert J. Marks II
Past President

PLEASE REPLY TO:
Interactive Systems Design Laboratory
Department of Electrical Engineering, FT-10
University of Washington
Seattle, WA 98198 USA
Tel: (206) 543-6990 (O)
Tel: (206) 776-8995 (H)
Fax: (206) 543-3842
e-mail: marks@milton.u.washington.edu

June 21, 1993

Dr. Helen Wood, IEEE Vice President
Publications Activities
National Oceanic & Atmospheric Administration
Room 1069, FB#4, Code E/SP
Washington, D.C. 20233

Dear Dr. Wood,

A book review of Dr. Bart Kosko was submitted for publication to the *IEEE Transactions on Neural Networks*. Dr. Kosko claimed conflict of interest with the author, Patrick K. Simpson.

Under previous policy, Phyllis Hall acted as Ombudsman and ruled that there, indeed, did exist a conflict of interest. This decision, however, was reached without contacting Patrick K. Simpson. At its March 1993 AdCom meeting, the *IEEE Neural Networks Council* reviewed the decision and, unanimously voted to appeal the decision of Ms. Hall. (The vote was taken without the participation of Simpson who is the NNC's VP). The strong feeling of the NNC is that the relationship between Simpson and Kosko fell quite short of what can be construed as a conflict of interest. Apparently, Simpson used to work for Kosko and Kosko later gave a negative review of some of Simpson's work. This, the NNC felt, is not conflict of interest.

On behalf of the *IEEE Neural Networks Council*, I hereby appeal Ms. Hall's decision in accordance to entry 6.22 in the IEEE Policy and Procedures Manual, January 1993.

Ms. Hall's records should include the information you need to perform your review. Dr. Morley also has been involved in the process, and could provide background.

Please let me know how I may assist.

Sincerely,

-copy-

Robert J. Marks

cc: Russ Eberhart, NNC President
Stamatios Kartalopoulos, NNC Publications Chair
Pete Morley, TAB Periodicals Council Chair
Phyllis Hall, IEEE Publishing Services

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IEEE

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

OFFICE OF THE VICE PRESIDENT - PUBLICATION ACTIVITIES

July 23, 1993

Dr. Lloyd Morley
The University of Alabama
Box 870207
122 Tom Bevill Building
Tuscaloosa, AL 35487-0207

PLEASE REPLY TO:
Helen M. Wood
National Oceanic and
Atmospheric Administration
Room 1069, FB4, Code E/SP
Washington, DC 20233 USA
Tel: (301) 763-1564
Fax: (301) 763-4348
Internet: h.m.wood@ieee.org

Dear Pete:

Thank you for agreeing to serve as mediator in the appeal by the editor of IEEE TRANSACTIONS ON NEURAL NETWORKS.

In accordance with IEEE Policy 6.22 -- APPEAL OF EDITORIAL DECISIONS, you should consult with all parties to the dispute and attempt to facilitate communication and discussion among them. If you are not able to resolve the problem within 60 days from the receipt of the complaint, then you should refer the matter to the Publications Board, together with any recommendations, for further action.

By copy of this letter to Phyllis Hall, Staff Executive of Publications, I am requesting her to provide you with copies of all correspondence and other materials relating to the matter.

Sincerely,

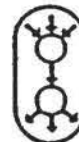
Helen M. Wood
Vice President for Publications

cc: Phyllis Hall, Staff Executive, Publications
Russell Eberhart, President, Neural Networks Council
Stamatios Kartalopoulos, Pub Chair, NNC
Robert Marks, Past President, Neural Networks Council

HMW/rdc



NEURAL NETWORKS COUNCIL



Robert J. Marks II
Past President

PLEASE REPLY TO:
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Tel: (206) 776-8995 (H)
Fax: (206) 543-3842
e-mail: marks@milton.u.washington.edu

May 20, 1993

Secretary of IEEE Awards Board
345 East 47th Street
New York, NY 10017

Dear Ladies and Gentlemen,

On behalf of the *IEEE Neural Networks Council*, I am honored to enthusiastically support the nomination of Professor Lotfi Zadeh as a recipient of the **IEEE Medal of Honor**.

I am certain you have been informed by others of the credentials and awards received by Dr. Zadeh. In this letter of nomination from the *IEEE Neural Networks Council*, I hope to clearly convey the enormous impact of Dr. Zadeh's contributions in electrical engineering. The stature of Dr. Zadeh's work is evident from the following observation. There are only two persons alive today who have been singularly responsible for the founding of fields in electrical engineering of such monumental significance, that they (1) are visited annually in major IEEE conferences devoted solely to the topic and (2) warrant their own individual IEEE Transactions. One is Claude Shannon who established information theory with his definitive 1948 paper.

The other is Lotfi Zadeh.

Dr. Zadeh founded fuzzy sets in his seminal 1965 paper, 'Fuzzy Sets' (*Information & Control*, vol.8, pp.338-353). It is a paper that has been cited literally thousands of times. In 1992, Bezdek and Pal edited a book of reprints of papers on fuzzy models for the IEEE Press entitled **Fuzzy Models for Pattern Recognition**. It has remained on the IEEE Press 'top ten' technical best seller list for over a year. On Zadeh's original paper, the first reprint in their volume, they comment

ZADEH'S ORIGINAL PAPER ON FUZZY SETS ... HAS PROBABLY BEEN REPRODUCED THOUSANDS OF TIMES BY NOW AND HAS APPEARED ON VARIOUS OCCASIONS IN SEVERAL OTHER COLLECTIONS OF REPRINTS . THE PAPER IS CLEAR, CONCISE, AND, LIKE ALL REALLY GREAT PAPERS, CONTAINS A WEALTH OF IDEAS THAT HAVE LEAD TO THE ESTABLISHMENT OF NEW BRANCHES OF SCIENCE . THE MOST ASTONISHING THING ABOUT THE PAPER IS THAT ONE CAN GO BACK TO IT, REREAD IT FROM TIME TO TIME, AND FIND GOOD IDEAS FOR CURRENT RESEARCH THAT TO THIS DAY HAVE NOT BEEN FULLY EXPLOITED !

Dr. Zadeh has continued to contribute to and champion the field of fuzzy logic. A collection of his papers dealing with fuzzy systems is currently under consideration for publication of the IEEE Press under the sponsorship of the *IEEE Neural Networks Council*.

Dr. Zadeh's ideas in fuzzy logic were accepted only after the occurrence of a classic technical paradigm shift. Indeed, although conceived in the United States by Dr. Zadeh, application of the technology took place largely in Japan. There, Zadeh's fame is comparable to that of Edison in America and the term 'fuzzy' is known to much of the general Japanese public. This statement

is neither exaggerated nor made lightly. I have personally witnessed the widespread popularity of Dr. Zadeh. In the May 28, 1990 issue of *Time Magazine*, we read in an article entitled "The Future Looks Fuzzy" the following.

ZADEH, STILL VIRTUALLY UNKNOWN IN AMERICA, HAS HIS NAME ON OFFICE BUILDING PLAQUES IN JAPAN.

In the September 25, 1989 issue of *Time Magazine*, we read

SUDDENLY THE TERM FUZZY AND PRODUCTS BASED ON THE PRINCIPALS OF FUZZY LOGIC SEEM TO BE EVERYWHERE IN JAPAN: IN TELEVISION DOCUMENTARIES, IN CORPORATE MAGAZINE ADS AND IN NOVEL ELECTRONIC GADGETS RANGING FROM COMPUTER CONTROLLED AIR CONDITIONERS TO GOLF SWING ANALYZERS. THE CONCEPT OF FUZZINESS HAS STRUCK A CULTURAL CHORD...

The technical impact of Zadeh's fuzzy logic has been enormous. The 1990 *Time Magazine* article states that over 2000 fuzzy logic patents have been filed in Japan alone. There are numerous professional societies devoted to fuzzy logic, including *The Japanese Society for Fuzzy Theories* (SOFT), *The International Fuzzy Systems Association*, *The North American Information Processing Society* (NAFIPS) and a number of national societies. There are three major journals devoted to fuzzy logic - *Fuzzy Sets and Systems*, *The International Journal on Approximate Reasoning* and the newly launched (1993) *IEEE Transactions on Fuzzy Systems* (TFS). Dr. Zadeh served on the committee that launched the TFS and is currently a member of its Executive Advisory Board.

The largest meeting in the world on fuzzy logic is the *IEEE International Conference on Fuzzy Systems* (FUZZ-IEEE). Appropriately, Dr. Zadeh was the Honorary Chair of the first FUZZ-IEEE meeting in 1992. He presented the key plenary talk at the 1993 FUZZ-IEEE. In the first year, the conference grew by 25%.

IEEE membership continually request more papers dealing with application. Starting last year, IEEE TAB, annually chooses a single topic considered highly relevant and topical, and, through an appropriately chosen editor, generates a reprint book of application papers. The next volume is **FUZZY LOGIC: Technology and Applications, 1994**. The effort, coordinated by Harry Strickholm at IEEE, is additional evidence of the phenomenal contemporary impact and applicability of Dr. Zadeh's fuzzy logic.

In 1965, Professor Lotfi Zadeh proposed an ingenious model that, curiously, attempts to accurately model uncertainty. It has taken nearly thirty years for the impact of this engineering genius to be accepted and applied. During these years, Dr. Zadeh has continued to develop and nurture his theory into the enormously significant technology we see today.

I can think of no other living person who is a more worthy recipient of IEEE's highest award.

Sincerely,

-COPY-

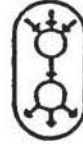
Robert J. Marks II, Past President
IEEE Neural Networks Council

cc: Dr. John Yen
Dr. Russ Eberhart, NNC President

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NEURAL NETWORKS COUNCIL



Robert J. Marks II
Past President

PLEASE REPLY TO:
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Tel: (206) 776-8995 (H)
Fax: (206) 543-3842
e-mail: marks@milton.u.washington.edu

August 7, 1993

To: NNC AdCom Members
From: Robert J. Marks II, Chair
NNC Nominations Committee
Subject: Nominations for NNC Offices for 1994

The Nominations Committee hereby places into nomination the following for officers of the NNC for 1994. (Listing is alphabetical by last name).

- President: Patrick K. Simpson, ORINCON
- Vice President: Walter Karplus, UCLA
Roy S. Nutter, Jr., WVU
- Treasurer: Piero P. Bonissone, GE Corporate R&D
- Secretary: Karen Haines, ORINCON
Stamatios Kartalopoulos, AT&T Bell Labs

Each nominee has indicated that they will serve if elected. Each, by request, has submitted a brief bio and statement concerning the NNC. It is addended.

Please include this material in the pre-meeting mailing for AdCom for the September AdCom meeting in Seattle where elections will occur.

Sincerely,

Robert J. Marks, Chair
IEEE NNC Nominations Committee

- cc Nominating Committee Members
 - Prof. Teck Seng Low
 - H. Vincent Poor
- Nominees
 - Patrick K. Simpson
 - Walter Karplus
 - Roy S. Nutter, Jr.
 - Piero P. Bonissone
 - Karen Haines
 - Stamatios Kartalopoulos



NEURAL NETWORKS COUNCIL



Patrick K. Simpson
Vice President

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San Diego, CA 92121 USA
Tel: (619) 465-5530 Ext. 267
Fax: (619) 453-9274
E-mail: xm8@sdcc12.ucsd.edu

Patrick K. Simpson Nominee for President

Address

Patrick K. Simpson
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619/455-5530

Home
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San Diego, CA 92128
619/675-0962

Biography

I have been involved with neural networks since the First IEEE International Conference on Neural Networks held in San Diego, CA in 1987 and have served the IEEE in many capacities since, including two terms as NNC Treasurer and two terms as NNC Vice-President. Below is a summary of these activities.

- Lead Volunteer International Conference on Neural Networks, San Diego, CA, June 6-10, 1987.
- Tutorials Chair 1988 International Conference on Neural Networks, San Diego, CA, July 23-27, 1988.
- Local Arrang. Chair International Joint Conference on Neural Networks, San Diego, CA, June 17-21, 1990.
- Program Chair IEEE Conference on Neural Networks for Ocean Engineering, Washington, DC, August 15-17, 1991.
- Program Committee International Joint Conference on Neural Networks, Singapore, November 18-22, 1991.
- Finance Committee IEEE International Fuzzy Systems Conference (FUZZ-IEEE 92), March 3-5, 1992.
- Organizer IEEE Neural Networks Council Computational Intelligence Seminar, Phoenix, AZ, December 4, 1992.
- Program Committee 1993 IEEE International Conference on Neural Networks (ICNN-93), San Francisco, March 28 - April 1, 1993.
- Publicity Chair IEEE International Conference on Evolutionary Computation, Orlando, FL, July 1994.
- General Chair 1997 IEEE World Congress on Computational Intelligence, San Diego, CA, June.



NEURAL NETWORKS COUNCIL



Patrick K. Simpson
Vice President

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Vision

The next few years will be very important in many respects. The NNC cash position is dangerously low, the emergence of many regional neural network societies coupled with the recent dissolution of the INNS/IEEE agreement threatens the unity, and hence the effectiveness, of any neural networks organization, and it is quickly becoming time for the NNC to make the next step toward becoming an IEEE Society with a new structure and its own membership.

My vision for the future of the NNC responds to these changes. My goals as President are the following:

Improve the Council's Cash Position. The NNC has extended itself a great deal over the past year. Ambitious new endeavors in Virtual Reality and World Congresses coupled with a loss of revenue in several international conferences have placed the NNC in a cash poor position. Over the next two years, I will attempt to bring the NNC's cash surplus up to at least \$200K. This will be accomplished through more conservative conference approval, more ambitious marketing efforts for conferences, moving to a Society to collect dues, and adding two new journals (*IEEE Trans. on Evolutionary Computation* and *IEEE Journal of Computational Intelligence Applications*).

Move From Council to Society. It is time for the NNC to become a society. Recent restructuring of the council has begun to move us in this direction and should continue. This move will require gaining TAB support and requires several approval steps to be made. The NNC has existed since 1990. It has proven itself technically and financially. It is time for the NNC to make this next step.

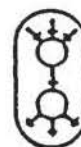
Clearly Delineate the NNC as the Engineering Society. There are many new neural network societies that have emerged over the past few years. Most of these societies are regional and emphasize local involvement. For the IEEE to remain effective as a transnational organization will require our continued presence as the premier engineering society. Promotion of more engineering workshops and the initiation of the aforementioned applications-based journal will facilitate this goal.

Expand the Council's Active Members. There are many individuals on the NNC that work very hard and are constantly volunteering for new projects. I would like to see this number increase. I would like to see even more technical and geographic diversity on the Council. Cost efficient methods of communication such as teleconferencing and e-mail will be needed to accomplish this goal.

In closing, the NNC has an exciting future. The technologies embedded in this council (neural networks, fuzzy systems, and evolutionary computation) are firmly rooted in a growing number of successful applications. It is my intention to provide the IEEE membership with a Society that fully supports these activities.



NEURAL NETWORKS COUNCIL



Walter J. Karplus
Computer Science Department
UCLA

Candidate for Vice President

Society Experience

IEEE - Fellow
IEEE Standards Board 1992 to present
IEEE Metric Policy Committee 1992 to present

IJCNN'90 - General Chair
NNC Standards Committee Chair 1991 to present
NNC Meetings Committee 1990 to present

AFIPS Board Member
IFIP Working Group 7.1 Chair 1984 to 1987
Society for Computer Simulation - President 1982-1984
VP Publications 1984-1991

Key Concerns

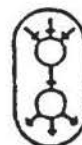
NNC should evolve continuously to remain at the leading edge of new technologies involving Computer Intelligence.

NNC should maintain its status as a Council and not try to become a Society.

NNC should strive to be as prominent as possible within the IEEE.

NNC should establish cordial relations with INNS but avoid all legal entanglements.

NNC should maintain careful financial controls and establish a reserve fund of at least \$ 250,000.



NEURAL NETWORKS COUNCIL

Roy Nutter

As an IEEE member, Roy has served in all offices of the Upper-Monongahela Subsection (1977-81). He has served as Director of the Pittsburgh Section (1981-83 and 1985-87); Member of the Executive Board of the Pittsburgh Section Computer Society (1978-83); and Pittsburgh Section Computer Society Treasurer (1984). He has been a member of the Industrial Applications Society (1974-present); Chairman of the Mining Industry Paper Review Committee (1984-1991); Member of the IAS Mining Industry Standards Committee for Mine Monitoring Systems (1989-1992); and served the WVU/IAS Mining Electrotechnology Conference as Transportation Chairman (1978,1980), Finance Chairman (1984, 1986),and General Chairman (1982,1988,1990).

Roy has served the IEEE Neural Networks Council as a representative of the Industrial Applications Society to the NNC Administrative Board (1989-1991), as Meetings Committee Chairman (1990,1991), as Chairman of the IOC (Interoperations Committee between IEEE-NNC and INNS)(1991), and has served as Treasurer (1992, 1993).

As an IEEE Fellow and a Registered Professional Engineer, Roy is Professor and Chairman of the Department of Electrical and Computer Engineering at West Virginia University.

OPINIONS of the IEEE NEURAL NETWORK COUNCIL

It is my opinion that the IEEE-NNC has served and will continue to serve in the best interests of the member Societies in the areas of Computational Intelligence. These areas include but are not limited to Neural Networks. Since the NNC has no individual members, it serves a need of unifying the IEEE Societies at a time when conflicts may arise over new technical areas that are broadbased and involve the interests of a broad group of people. By continuing to sponsor one major conference per year inside the United States while also assisting sponsorship of one major conference per year outside the USA in each of the major interest areas of the NNC, hopefully a forum for personal contact will result that will set the stage for future research and development of the areas of neural networks and fuzzy systems at a minimum. The continuing development of the Transactions on Neural Networks and the Transactions on Fuzzy Systems seem to be well received by the member societies.

The efforts of the past officers of the NNC are indeed paying dividends in terms of developing the base of technical knowledge in these fields in the world. I fully support the work that the present and past sets of NNC officers have implemented. It is my opinion that this work must continue in conference organization, publications, and in standards to name only a few. No other forum exists that is so broadbased in expertise than the IEEE Neural Network Council that covers these areas of interest. The Neural Network Council must continue to poll the member societies and to serve their needs.

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SHORTER STATEMENT

I believe that there are many complementary technologies such as fuzzy logics, neural networks, and genetic algorithms, whose integration would result in synergistic effects.

I want to contribute to the organization of an effort aimed at integrating them, providing a forum for scientific communication and education among the researchers of these communities.

Dr. Piero P. Bonissone



JUL 26 '93 02:01PM GE AIL,CRD 387-6845

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DR. PIERO P. BONISSONE

EDUCATION: Dr. Bonissone received the B.S. degree magna cum laude in Mechanical and Electrical Engineering 1975 from the University of Mexico City. From the University of California at Berkeley, California, he received the M.S. degree in Electrical Engineering and Computer Science in 1978, the M.S. degree in Mechanical Engineering in 1979, and the Ph.D. degree in Electrical Engineering and Computer Science (with double major in computer applications and control theory) in 1979.

INDUSTRIAL EXPERIENCE: A computer scientist at the General Electric Corporate Research and Development Center since 1979, Dr. Bonissone has carried out research and projects in artificial intelligence, expert systems, simulation, fuzzy sets, and interactive graphics.

In 1981, he led the R&D team for Diesel Electric Locomotive Troubleshooting Aid (DELTA), an expert system to help maintenance technicians in troubleshooting diesel electric locomotives.

In 1985 he became the principal investigator in a five year research program on Reasoning with Incomplete and Uncertain Information, as part of the Knowledge Based Systems Technology Base in DARPA's Strategic Computing Program.

He was responsible for the development of the Situation Assessment Module in the first phase of DARPA's Pilot's Associate Project (Lockheed team). He also played a key role in the design and development of the Situation Assessment modules for the Submarine Operational Automation System program.

He led the development of the Reasoning with Uncertainty Module (RUM) and Plausible Reasoning Module (PRIMO), two GE proprietary expert system tools that integrate the theories of plausible and default reasoning.

In 1990 he developed CARS (Combined Approximate Reasoning Systems), a case-based reasoning tool integrated with PRIMO, and applied to military transportation planning problems.

Currently he is a member of DARPA's Planning and Scheduling Initiative Executive Committee with responsibilities as Co-chair of the Initiative's Visionary Demonstration and as Technical Coordinator for the Initiative's 1993 Integrated Feasibility Demonstration.

Dr. Bonissone has also developed many projects in Fuzzy Logic Control Technology (FLC Development Environment and compiler) and in a variety of FLC applications ranging from the control of turbo-shaft engines and locomotive wheel slip to the use of Fuzzy Logic in power electronics and dishwashers.

AWARDS: In 1986, he received the King-Sun Fu Award from the North American Fuzzy Information Processing Society for his contributions to the field of fuzzy sets and approximate reasoning. In 1989, he received the Dushman Award from the General Electric Corporate Research and Development for his role in the RUM project.

PROFESSIONAL ACTIVITIES

He is a member of IEEE, AAAI, ACM, and NAFIPS. Dr. Bonissone was the Program Chair of NAFIPS II, an international conference on approximate reasoning and expert systems. He was also the Program Chair of the 1990 Conference on Uncertainty in Artificial Intelligence and the General Chair of the 1991 Conference on Uncertainty in Artificial Intelligence. In 1993 he was the Program Chair of the IEEE Second International Conference on Fuzzy Systems (FUZZ-IEEE'93). He will be the Conference Chair of FUZZ-IEEE'94.

PUBLICATIONS

JUL 26 '93 02:01PM GE AIL,CRD 387-6845

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He has published more than seventy-five articles in the area of expert systems, approximate reasoning, fuzzy sets, pattern recognition, decision analysis, and interactive interfaces. Articles published in IEEE System, Man and Cybernetics, International Journal of Man-Machine Studies, Information Science, International Journal of Approximate Reasoning, IJCAI Proceedings, ACM Proceedings, and numerous book chapters. He received two patents from the U.S. Patent Office for his work on reasoning with uncertainty. Publication list available upon request.

EDITORSHIPS (Journals):

He was the guest editor for two special issues on "Reasoning with Uncertainty in Expert Systems" in the International Journal of Man-Machine Studies and Information Science. Currently, he is the Editor-in-Chief of the International Journal of Approximate Reasoning (North-Holland Publishing Company) and an associate editor of two other journals.

EDITORSHIPS (Books):

He co-edited the book "Expert Systems in Structural Safety Assessment" (Springer-Verlag 1989), "Uncertainty in Artificial Intelligence (6)" (North-Holland 1991), and "Uncertainty in Artificial Intelligence (7)" (Morgan Kaufmann 1991).

EDUCATIONAL ACTIVITIES (TEACHING AND TUTORIALS)

Dr. Bonissone is an Adjunct Professor of ECSE Dept. at the Rensselaer Polytechnic Institute (RPI), Troy, NY, where he teaches the course "Fuzzy Sets and Expert Systems in Computer Engineering" (course taught for ten years). At RPI, he has supervised four Ph.D. Theses and over sixteen M.S. Theses in Computer Science and Computer Engineering.

In 1991 Dr. Bonissone gave two televised lectures on Fuzzy Logic Applications: IEEE video-conference (April 91) and National Technological University seminar (December 91). He was also a plenary session speaker for AAAI-91, with his talk: "Approximate Reasoning Systems: A personal perspective".

In 1992 he gave a two-hours televised tutorial for IEEE, a three hour tutorial for FUZZ-IEEE'92, and a six-hours tutorial on "Fuzzy Expert Systems and Fuzzy Logic Controllers" organized by United Signals and Systems, Inc., and three one-hour tutorials on Fuzzy Logic control at NASA Third International Workshop on Neural Networks and Fuzzy Logic'92, the 1992 Western New York Fuzzy Logic Conference (organized by Kodak), and the Centre de Recherche Informatique de Montreal (CRIM).

Karen Haines
 2446 Newport
 Cardiff by the Sea, CA 92007
 Work: (619) 455-5530 x343
 Home: (619)436-7314
 FAX: (619) 453-9274

BACKGROUND

Ms. Haines is currently working as a Principal Engineer at ORINCON Corporation where she is pursuing a career in image and signal processing. She received her Master's in electrical engineering from Carnegie Mellon University, Pittsburgh, PA, in 1991. Ms. Haines is one of the newest members of the IEEE Neural Network Council Ad Com representing the Ocean Engineering Society. She was recently elected as the Chair of the Education Committee and immediately sought funds for travel fellowships for students presenting papers at IJCNN93 in Nagoya, Japan. She has also accepted the position as Tutorials Chair for the 1994 World Congress on Computational Intelligence in Orlando.

Although Ms. Haines is a new member of the IEEE Neural Network Council Ad Com, she has previously assisted the Neural Network Council (NNC) on numerous occasions. As a liaison for the International Student Society for Neural Networks (ISSNNet), Ms. Haines worked with the NNC's Education Committee in receiving and distributing funding made available to students presenting papers at both International Joint Conferences on Neural Networks (IJCNN's) in 1990. Her efforts provided financial assistance to over 50 students attending the IJCNN Seattle Conference and 9 students to attend the IJCNN Singapore Conference. Other past efforts with the IJCNN Conferences include: International Joint Conference on Neural Networks (IJCNN) Tutorials Chair (July 1990, 1989); International Joint Conference on Neural Networks (IJCNN) Volunteer Coordinator (January 1990). A result of her experience as Volunteer Coordinator is a document for volunteer organization that is currently used by ICNN Volunteer Coordinators as well as other conferences.

Additional efforts within the Neural Network Community include: International Student Society for Neural Networks (ISSNNet), co-founder and Past-President (1990-1991); International Neural Network Conference (INNC Paris) Volunteer Coordinator (1990);

VISION:

In support of her nomination to the position of Secretary for the IEEE Neural Networks Council, she provides the following.

Council Historian

It is important for us, as council members, and (when appropriate) for the IEEE Neural Network community to have knowledge of and easy access to previous reports, petitions, records, and other document items of interest. Currently, the only source of this information is the official meeting minutes of previous meetings and access to these minutes is limited and difficult. In addition to maintaining accurate records of meeting minutes, I would like to implement an archival system that provides access, traceability, and tracking to official documents. As required by my position, a copy of all documents will

be sent to IEEE Headquarters as well. The implementation of a document archival system would greatly assist the council in developing and maintaining a history of the council's achievements.

Increased Ad Com Involvement

Another issue that should be of concern to the council is the involvement of its current Ad Com members. A member's lack of involvement could be attributed to the inconvenience of having to travel to attend an Ad Com meeting or it may be the timing of the meeting. Since Ad Com meetings are infrequent and rarely local to one's home, this combination can result in a perceived lack of involvement for any Ad Com member. As a solution, I would like to introduce the concept of teleconferencing. In working with the council members, I would like to devise a plan that would allow for quarterly meetings via teleconferencing. Not only will teleconferencing allow for an increased frequency in Ad Com meetings, and an increased level of participation among Ad Com members, but it will also alleviate some expenses currently encountered in holding Ad Com meetings.

It would be an honor to support the IEEE Neural Network Council as Secretary.

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July 14, 1993

Dr. Robert J. Marks II, Chair
NNC Nominations Committee
1131 199th Street S.W.
Lynnwood, WA 98036

Dear Dr Marks,

With this letter I accept the nomination to the office of the Secretary of the Neural Networks Council (NNC).

I have served the NNC in several different capacities: Representative of the Communications Society, NNC Liaison to IEEE Press, initial work on the CD-ROM program, and currently Chairman of the NNC Publications Committee. Especially worth mentioning are two successful firsts:

- * three books (co)sponsored by NNC and published by IEEE Press, and
- * CD-ROM production of IJCNN conference proceedings.

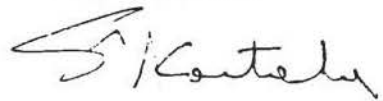
I also have served the Communications Society in different capacities: currently, as the chairman of ComSoc's Signal Processing and Communications Electronics Committee and member of several ComSoc Committees, and also in the technical program committee of several ComSoc's Conferences. In addition, I was the guest editor of a special issue on Fuzzy and Neural Networks of ComSoc's publication "Communications Magazine" in 9/1992, another first.

I have published numerous articles in scientific journals and conferences in the domain of communications systems, digital controllers, logic, opto-electronic systems, neural networks and fuzzy systems.

If elected the secretary of the NNC I would like to:

- Support the vision and directions of IEEE and NNC towards globalization.
- Support and enhance NNC's and IEEE's educational objectives and activities in USA and other countries.
- Support the technical information exchange through publications and technical Conferences.
- Maintain and enhance the quality objectives of NNC and IEEE.
- Support the Standards activities of NNC and IEEE.
- Increase NNC's membership particularly in countries undergoing democratization.
- Continue being a useful contributor to NNC and IEEE.

Very truly yours.



Stamatios V. Kartalopoulos



IEEE SERVICE CENTER

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DIRECT NUMBER (908) 562-

July 15, 1993

To all Transactions/Journals Editors, Society Presidents, and Society Vice Presidents for Publications:

Just a short note to let you know how much we appreciate your support and understanding as we continue to recover from the schedule delays that too many of our Transactions suffered early this year.

On-time publication for 100% of our Transactions won't be accomplished until October/November, but, as is often the case, we have learned many valuable lessons "the hard way" that will help us achieve our goal of 60,000+ electronically published pages in 1994.

Pat Walker and her staff are working diligently to perfect an evolving process that continually challenges our staff's commitment and ingenuity. To join in this effort, we are pleased to have hired four new associate editors and will continue to hire in anticipation of the move to N.J. I feel confident in assuring all of you that we have a stabilized situation in Transactions and our bad days are behind us. Thanks again for your patience.

Sincerely,

Phyllis Hall
Staff Executive,
Publications

/sr

ph:022

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James C. Bezdek

Computer Science
Univ. of West Florida
Pensacola, FL 32514

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Fax. (904) 474-3023
jbezdek@uwf.bitnet



Russ Eberhart, President
Neural Networks Council
Research Triangle Institute
P.O. Box 12194
Research Triangle Park, NC 27709

Attached : The active MINUTES OF THE IEEE NEURAL NETWORK COUNCIL (NNC) MEETINGS COMMITTEE.

Respectfully submitted,

Jim Bezdek, Chair
NNC Meetings Committee

cc: members of the meetings committee (Karplus, Newcombe, Nutter)

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1993 IEEE Neural Networks Council Document
 Robert J. Marks II Library Archive

| | In Attendance | Location : Hilton Hotel, San Francisco, March 27, 1993 | Email Address |
|----|---------------------------|--|--------------------------------|
| 1 | Jim Bezdek, Chair (voter) | | jbezdek@ai.uwf.edu |
| 2 | Walter Karplus (voter) | NNC Adcom | karplus@cs.ucla.edu |
| 3 | Bob Newcombe ABSENT | NNC Adcom | newcomb@eng.umd.edu |
| 4 | Roy Nutter (voter) | NNC Treasurer | rsn@ece.wvu.edu |
| 5 | Russ Eberhart (voter) | President, IEEE NNC | rce@rti.rti.org |
| 6 | Pat Simpson | VP, IEEE NNC and Chair, 1997 WCCI, San Diego | xm8@ |
| 7 | Bob Marks | Editor, Trans. NN | marks@u.washington.edu |
| 8 | Enrique Ruspini | FUZZ-IEEE '93, ICNN '93 | ruspini@ai.sri.com |
| 9 | Bob Lobbia | Chair, IEEE Sectional, San Diego | |
| 10 | Charles Robinson | Chair, 1994 WCCI, Orlando | c.robinson@ieee.org |
| 11 | Fred Petry | Chair, 1996 FUZZ-IEEE, New Orleans | petry@cs.tulane.edu |
| 12 | John Trimble | Chair, 1994 VRAIS | trimble@compmail.com |
| 13 | Steve Marlin | Meeting Management | 70750.345@compuserve.com |
| 14 | Karen Haines | NNC Adcom | |
| 15 | Cliff Lau | NNC Adcom | clau@charm.isi.edu |
| 16 | Toshio Fukuda | Secretary, NNC | d43131a@nucc.cc.nagoya-u.ac.jp |
| 17 | Oscar Garcia | NNC Adcom | garcia@nsf.gov |
| 18 | Yianni Attikiouzel | Chair, ICNN '95 | |
| 19 | | | |
| 20 | | | |
| 21 | | | |

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91

| ITEM of BUSINESS | CURRENT STATUS & NOTES | ACTIONS OF THE NNC MEETINGS COMMITTEE |
|--|---|---------------------------------------|
| <p>June 6, 1992 NNC guidelines for contractual services offered by conference management firms (Bezdek)</p> <p>Dec. 5, 1992</p> <p>March 27, 1993</p> <p>Sept. 18, 1993</p> | <p>Pat Simpson agreed to take a first cut at drafting guidelines for all NNC sponsored conferences, one part of which details requirements for contractual services offered to the NNC by conference management firms.</p> <p>No discussion of this item at the December meeting.</p> <p>Pat is waiting for an electronic template from the IEEE.</p> | |
| <p>June 6, 1992</p> <p>June 6, 1992</p> <p>Dec. 5, 1992</p> <p>March 27, 1993</p> <p>Sept. 18, 1993</p> | <p>GA/NN Forum, Baltimore</p> <p>Roughly 82 paid attendees, probably will be a surplus situation. No action required. Status Report : (R. Eberhart)</p> <p>Eberhart reported that there will be a surplus of about \$ 1-2 K</p> | |
| <p>June 7-10, 1992</p> <p>Dec. 5, 1992</p> <p>March 27, 1993</p> <p>Sept. 18, 1993</p> | <p>IJCNN, Baltimore.</p> <p>N. Feldman : estimated surplus is about \$ 154 K, half will be paid to the INNS. Of our half, 10%~ \$ 8K will go to the Baltimore local.</p> <p>Checks have been disbursed: \$69,831.00 to the NNC.</p> | |

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| October 7-10, 1992 | Rostov-on the Don with RNNS | |
|---------------------------|--|---|
| June 6, 1992 | W. Snyder circulated a preliminary program for this meeting, and speculated that it will probably run a deficit of \approx \$10K. | |
| Dec. 5, 1992 | Snyder reported that the meeting was an academic success, but that the NNC stood to lose as much as \$14K, depending on our success at getting the IEEE to honor the book boker agreement. He stated that \$ 3300 was needed to close the books. | Motion : \$3300 to Snyder to close the accounts of the conference. Approved. |
| March 27, 1993 | Final report in progress; proceedings sales netted about \$300.00. | |
| Sept. 18, 1993 | | |
| Nov. 3-9, 1992 | IJCNN, Beijing, PRC | |
| June 6, 1992 | 400 papers from inside China have been accepted. INNS has not approved cooperation. Meeting to be held at the Continental Grand Hotel. Status Report : (Eberhart) | |
| Dec. 5, 1992 | Academic success. Too early to estimate financial situation. Status Report : (Eberhart) | |
| March 27, 1993 | No report made on this meeting in March. | |
| Sept. 18, 1993 | | |

93

| March 28- April 1, 1993 | | FUZZ-IEEE '93/ICNN, San Francisco, CA |
|--------------------------------|---------------------------|--|
| June 6, 1992 | Status Report : (Ruspini) | All contracts have been signed, everything looks pretty good. Requested : \$50 additional seed money. IEEE needs a formal conference formpak completed for ICNN portion - Eberhart to request formpak from Sensi for Ruspini. |
| Dec. 5, 1992 | Status Report : (Ruspini) | Another large, detailed status report. Everything seems to be on schedule. Request for help with CD ROM problems. Request for an additional \$ 15 K seed money. |
| March 27, 1993 | | Ruspini gave a detailed status report on all areas of the conference. Everything is fine; about 1200 attendees are expected, 1000 are pre registered. Tutorial income will probably be 1/2 of estimated figure. |
| Sept. 18, 1993 | | |
| Sept. 18-22, 1993 | | VRAIS conference. Seattle, WA |
| June 6, 1992 | | Caudell gave a short report on VRAIS '93, and then requested \$20K additional seed money. |
| Dec. 5, 1992 | | Due to an oversight, approval of the budget and seed money which was given by ADCOM in June, '92 did not get into the minutes. Requests to reapprove the budget and authorize 50K seed money (45K prior) were made by the finance chair, Dmitry Kaplan . |
| March 27, 1993 | | A revised estimate of attendees (to 610) and budget was submitted. Also, meeting management revised contract by \$5K decrease in letter dated 2/26/93. |
| Sept. 18, 1993 | | |
| | | <i>Motion</i> : \$ 50K seed to Ruspini : Approved. |
| | | <i>Motion</i> : Approve budget, pp. 35-38, NNC ADCOM handbook for June 6,7, 1992. Approved. |
| | | <i>Motion</i> : \$15K additional seed to Ruspini : Approved. |
| | | <i>Motion</i> : \$20K seed to Caudell : Approved. |
| | | <i>Motion</i> : Approve budget, pp. 52-57, NNC ADCOM handbook for June, 1992. Approved. |
| | | <i>Motion</i> : Additional 50K seed money for printing and mailing expenses. Approved. |
| | | <i>Motion</i> : Approve revised budget, p105, NNC ADCOM handbook for March, 1993. Approved. |

1993 IEEE Neural Networks Council Document
 Robert J. Marks II Library Archive

| | | |
|--|---|--|
| <p>October , 25 - 29, 1993</p> <p>----- June 6, 1992 -----</p> <p>ICNN, Nagoya, Japan Status Report : (T. Fukuda)</p> <p>----- Dec. 5, 1992 -----</p> <p>----- March 27, 1993 -----</p> <p>----- Sept. 18, 1993 -----</p> | <p>IJCNN '93, Nagoya, Japan</p> <hr/> <p>Fukuda gave a status report; everything is in order.</p> | <p>Fukuda/Amari request use of the name IJCNN.</p> <p>Motion : Fukuda advance IJCNN as an alternative. If this is not palatable to the Japanese, the meetings committee defers resolution to the NNC Excom. Approved.</p> |
| <p>June 24 - July 1, 1994</p> <p>----- June 6, 1992 -----</p> <p>Status Report : (C. Robinson)</p> <p>----- Dec. 5, 1992 -----</p> <p>----- March 27, 1993 -----</p> <p>----- Sept. 18, 1993 -----</p> | <p>1994 WCCI, Orlando : FUZZ-IEEE , ICNN, EC</p> <p>Dr. Piero Bonissone General Electric CR & D 1 River Road : KI-5C32A Schenectady, NY 12301</p> <p>Dr. Z. Michalewicz Computer Science Dept. Univ. of North Carolina Charlotte, NC 28223</p> <p>Major Steve Rogers AFIT, School of Engineering Wright Patterson AFB Dayton, OH 45433</p> <p>Charles Robinson School of Health Univ. of Pittsburg Pittsburg, PA 15261</p> <p>C. Robinson submitted his resignation as chair, but agreed to serve as co-chair with Marks until a new chair could be found. Committee agreed to recommend J. Zurada. An organizational planning meeting will be held in Orlando on Jan. 9-10; Robinson requested additional 10K in seed money to pay for this meeting.</p> <p>Robinson gave an extensive game plan and budget report. Action on budget was deferred to the ADCOM meeting.</p> | <p>Motion : 3 tracks at the WCCI : Approved.</p> <p>GENERAL Chair, C. Robinson at [c.robinson@ieee.org],</p> <p>FUZZ-IEEE : GC = P. Bonissone PC = E. Ruspini ICNN : GC = S. Rogers PC = Dennis Ruck GA/EP : GC = Z. Michalewicz PC = TBD</p> <p>Marks was asked if he could find a general chair for the VRAIS portion of the WCCI; he agreed. Motion : 10K seed money to Robinson for organizational meeting and other expenses. Approved.</p> |

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| <p>Sept-Oct, 1994</p> <p>Jan. 9, 1993 (Orlando WCCI Minutes)</p> <p>March 27, 1993</p> <p>Sept. 18, 1993</p> | <p>VRAIS - 1994, North Carolina</p> <p>The VR portion of the WCCI is removed from the 1994 congress, and a separate VR meeting is recommended. Need : Consent agenda approval for Trimble = General Chair.</p> <p>Trimble indicated that the meeting would be in the period 15 Sept-15 Oct. He is seeking industry involvement and VR exhibits. PCs : B. Kenyon (US) and H. Hashimoro (Asia).</p> <p style="text-align: center;">Need : ADCOM budget approval</p> | <p>Dr. John L. Trimble, General Chair 1814 N. Bissell Chicago, Ill 60614 FAX 312 664 6491 (B) 312 781 9680</p> <p>Motion : Preliminary budget submitted be approved. Approved. (ADCOM tabled to Seattle) Action Item: Appointment letter for Trimble (Eberhart)</p> |
| <p>March, 1995</p> <p>June 6, 1992 Proposal : (T. Fukuda)</p> <p>Dec. 5, 1992</p> <p>March 27, 1993</p> <p>Sept. 18, 1993</p> | <p>FUZZ -IEEE (with IFES), Yokohama, Japan</p> <p>Disussion of proposal by Sugeno et. al.</p> <p>No report.</p> <p>Prof. Terano gave a detailed plan for the meeting, and presented a preliminary budget.</p> <p style="text-align: center;">Need : ADCOM budget approval</p> | <p>Motion : FUZZ-IEEE '95 be held in Yokohama, Japan, as a joint meeting with the LIFE meeting IFES, with M. Sugeno as General Chair, Hirota/Fukuda as co-PCs . Approved.</p> <p>Motion : Approve budget as submitted. Approved. (ADCOM tabled to Seattle).</p> |
| <p>April, 1995</p> <p>Sept. 18, 1993</p> | <p>CIFE, New York City</p> <p>Discussion of proposal presented by Scott Mathews</p> <p style="text-align: center;">Need : Comm. & ADCOM approval</p> | <p>Motion</p> <p>Approved</p> |

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| <p>October, 1995</p> <p>----- June 6, 1992 -----</p> <p>----- Dec. 5, 1992 -----</p> <p>----- March 27, 1993 -----</p> <p>----- Sept. 18, 1993 -----</p> | <p>ICNN, Perth, Australia</p> <p>-----</p> <p>Disussion of proposal presented by Y. Attikiouzel.</p> <p>-----</p> <p>Detailed budget presented to committee.</p> <p>-----</p> <p>Need : ADCOM budget approval</p> | <p>-----</p> <p>Motion: The 1995 ICNN be held in Perth, Australia, with Y. Attikiouzel as General Chair . Approved.</p> <p>-----</p> <p>Motion : Approve budget as submitted. Approved. (ADCOM tabled to Seattle).</p> <p>-----</p> |
| <p>June, 1996</p> <p>----- June 6, 1992 -----</p> <p>----- Dec. 5, 1992 -----</p> <p>----- March 27, 1993 -----</p> <p>----- Sept. 18, 1993 -----</p> | <p>ICNN, Washington, D.C</p> <p>-----</p> <p>Bezdek to contact Perry Sensi about dealing with the Sheraton for the contract. Sensi was reluctant to enter the fray, because Meeting Management made initial contract.</p> <p>-----</p> <p>Steve Marlin reported that we have a contract in place. Need : General and Program chairs.</p> <p>-----</p> <p>No one has been identified as general chair for this conference; revisit the problem at our next committee meeting.</p> <p>-----</p> <p>Need : GC / PC, Proposal, Budget</p> | <p>-----</p> <p>Motion : The NNC will hold an ICCN at the property in 1996, with GC/PC to be determined later. Approved.</p> <p>-----</p> <p>-----</p> <p>-----</p> |

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| <p>TBD, 1996</p> <p>----- March 27, 1993 -----</p> <p>----- Sept. 18, 1993 -----</p> | <p>FUZZ-IEEE '96</p> <p>----- Fred Petry presented a detailed proposal for meeting in New Orleans. -----</p> <p style="text-align: center;">Need : ADCOM budget approval</p> | <p>----- <i>Motion</i> : Appoint Fred Petry as GC. Approved. <i>Motion</i> : Approve budget as submitted. Approved. (ADCOM tabled to Seattle). -----</p> |
| <p>Summer, 1997</p> <p>----- Dec. 5, 1992 -----</p> <p>----- March 27, 1993 -----</p> <p>----- Sept. 18, 1993 -----</p> | <p>WCCI, San Diego, CA</p> <p>----- Proposal from the San Diego section of the IEEE for hosting the next West Coast NNC sponsored meeting. Presented by P. Simpson. -----</p> <p>----- Bob Lobbia presented revised proposal and budget for the meeting. Seed money from San Diego local limited to \$30K total. -----</p> <p style="text-align: center;">Need : ADCOM budget approval</p> | <p>----- <i>Recommended</i> : P. Simpson will encourage the San Diego section to formulate and submit a revised proposal for the 1997 world congress, detailing their involvement. -----</p> <p>----- <i>Motion</i> : Approve budget as submitted. Approved. (ADCOM tabled to Seattle). -----</p> |
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| Date | Item of Business | Date and Action |
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| 3/18/92 | Cooperating status for 2nd Annual conference on Evolutionary Programming, Feb. 25-26, 1993, San Diego, request by David Fogel, EP Society. | Approved : 3/23/92 |
| 3/18/92 | Cooperating status for WNN '92, Houston, date not specified, request by M.L. Padgett, Auburn Univ. | Approved : 3/23/92 |
| 3/18/92 | Cooperating status for WNN '93, Monterey, date not specified, request by M.L. Padgett, Auburn Univ. | Approved : 3/23/92 |
| 4/2/92 | Cooperating status for Intelligent Vehicles '93, July 14-16, 1993, Tokyo, request by I. Masaki, GM. | Approved : 4/8/92 |
| 7/7/92 | Cooperating status for ICANN93 from September 13-16 in Amsterdam, request by H.J. Kappen. | Approved : 7/8/92 |
| 10/4/92 | Cooperating status the IEEE Workshop on Neural Networks for Signal processing. Linthicum, MD, September 7-9, 1993. Request by Gary Kuhn. | Karplus, Eberhart, Nutter, Bezdek=yes;Newcombe =no Approved : 10/6/92. |
| 10/10/92 | Cooperating status for EP'94, the 3rd Evolutionary Programming conference, Feb. 24-25, 1994, San Diego, CA. Request by David Fogel. Marks suggests that, in return, all IEEE members be charged the same conference fees charged to the sponsoring society? Good idea. | Karplus, Eberhart, Nutter, Bezdek,Simpson,Newcombe= yes; Approved : 10/15/92 |
| 11/10/92 | Cooperating status for the International Conference on Neural Networks and Signal Processing, Nov. 2-5, 1993, in Guangzhou, China. It is sponsored by the Chinese Institute of Electronics CAS; and the IEEE CAS is already "in cooperation with". The General Chair is Prof. Bing-Zheng Xu, Institute of Radio Engg. & Automation, South China University of Technology, Guangzhou 510641, China. The Program Chair is Prof. Zhen-Ya He, Radio Engineering Dept., Southeast University, Nanjing 210018, China. Prof. His fax number is 86-25-714212. | Eberhart, Bezdek, Karplus = yes; Approved : 2/7/93 |
| 11/24/92 | Cooperating status for the 1993 International Symposium on Nonlinear Theory and its Applications in Hawaii (Sheraton Waikiki Hotel) on December 6 - 9, 1993. It is sponsored by the Nonlinear Group of IEICE, organized by University of Hawaii and cosponsored by IEEE Hawaii Section. The General Co-chairs are Shun-ichi Amari, Prof. Anthony Kuh at Hawaii University and Prof. Shinsaku Mori at Keio University. Shun-ichi Amari is the Program Chair. | Eberhart, Bezdek, Karplus, Nutter = yes; Approved : 12/1/92 |
| 12/28/92 | Request for technical co-sponsorship of the 2nd IEEE Int'l Workshop on Robot and Human Communication, Nov. 3-5, 1993, Science University of Tokyo, Fumio Hara, General Chair; Kobayashi, Fukuda and Harashima, coPCs. (no money obligation). Request by T. Fukuda. | Eberhart, Bezdek, Nutter, Karplus = yes Approved : 12/29/92 |

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| 1/11/93 | <p>Cooperating status for the FIRST BOSTON-AREA FUZZY LOGIC WORKSHOP, February 25, 1993, GTE Laboratories Waltham, MA. Request by Allen Bonde</p> <p>Allen Bonde, Chair Fuzzy Boston '93 GTE Government Systems Corp. 77 'A' Street Needham Heights, MA 02194 E-mail: abonde@gte.com (preferred) FAX: 617-455-5365</p> | <p>Eberhart, Karplus, Bezdek, Nutter = yes.</p> <p>Approved : 1/11/93</p> |
| 1/12/93 | <p>Cooperating status for the ICARCV'94 , Third International Conference on Automation, Robotics and Computer Vision '94, 13 to 16 September 1994, Singapore. Request by M.Ang.</p> <p>Marcelo H. Ang Jr. Department of Mechanical and Production Engineering National University of Singapore Singapore 0511 Tel 65-772-2555 Fax 65-779-1459 e-mail: MPEANGH@NUSVM.bitnet</p> | <p>Karplus, Newcombe Nutter, Bezdek = yes.</p> <p>Approved : 2/5/93</p> |
| 2/6/93 | <p>Cooperating status for the ETFA'93, 2nd IEEE International Workshop on Emerging Technologies for Factory Automation Design and Operation of Intelligent Factories September 27-29, 1993, Palm Cove - Cairns, Australia</p> <p>Richard Zurawski , General Chairman Laboratory for Concurrent Computing Department of Electrical & Computer Swinburne University of Technology John Street, Melbourne 3122, Australia Phone +61 3 728 71 61 Fax +61 3 728 71 83 E-mail: rzz@stan.xx.swin.oz.au</p> | <p>Eberhart, Bezdek Karplus = yes. Nutter, Newcombe, Marks(advisory) = no.</p> <p>Approved : 2/8/93</p> |

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| 2/10/93 | <p>Request for technical co-sponsorship for the 1993 IEEE/Nagoya University WWW on Learning and Adaptive Systems, Oct. 22-23, 1993, Nagoya, Japan. (no money obligation). Request by T. Fukuda.</p> <p>Toshio Fukuda, General co-chair Dept of Mechano-Informatics and Systems Nagoya University Fruo-cho, Chikusa-ku, Nagoya 464-01, Japan Tel : 81-52-781-5111 x 4478 Fax : 81-52-781-9243</p> | <p>Bezdek, Eberhart, Karplus, Nutter, Newcomb = yes.</p> <p>Approved : 3/1/93</p> |
| 2/10/93 | <p>Technical co-sponsorship for the 1993 IEEE/Nagoya University WWW on Multiple and Distributed Robotic Systems, July 30-31, 1993, Nagoya, Japan. Request by T. Fukuda.</p> <p>Toshio Fukuda, General co-chair Dept of Mechano-Informatics and Systems Nagoya University Fruo-cho, Chikusa-ku, Nagoya 464-01, Japan Tel : 81-52-781-5111 x 4478 Fax : 81-52-781-9243</p> | <p>Bezdek, Eberhart, Karplus, Nutter, Newcomb = yes.</p> <p>Approved : 3/1/93</p> |
| 2/19/93 | <p>Request for ExCom to authorize the payment of up to \$5,000 in bills for the WCCI before we meet in San Francisco. Request made by Russ Eberhart</p> | |

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| 3/27/93 | Cooperating Status for the 1993 International Symposium on Artificial Neural Networks December 20-22, 1993, Hainchu, Taiwan, ROC, Sponsored by National Chiao tung University General Co-chairs C.Y. Y Wu, NCTU and S.Y. JKung, Princeton University Program Co-chairs : H.C. Fu, NCTU and C.L. Wu, U-T Austin | <i>Approved In Session</i> |
| | Cooperating Status for the 1994 International Conference on Neuro-Science and Engineering (ICONSE) - '94). Seoul, Korea, Date unspecified. Conference Chair Prof. Y.B. Cho R&D Institute Hyosung Industries Co. 4, 5-Ka, Dangsang-Dong, Yeongduengpo-Ku Seoul, Korea | <i>Approved In Session</i> |
| | Cooperating Status for the 1994 International Conference on Neural Information Processing (ICONIP) - '94). Seoul, Korea, Oct. 17-20, 1994. Note: approved for Oct. 24-27 originally. Myung Won Kim, President, IEEE NNC, Korea Myung Won Kim, Ph.D. Research Department, Electronics & Telecommunications Research Institute P.O. Box 8, Daeduk Science Town Daejeon, Korea 305-606 Tel: +82-42-860-6856 Fax: +82-42-860-5033 mkim@logos.etri.re.kr | <i>Approved In Session</i> |
| | Cooperating Status for the 1994 ICANN Conference Chair P. Morasso | <i>Approved In Session</i> |
| | Technical Co-sponsorship for the 1994 RNNS Rostov on the Don, Conference Chair I. Witali | <i>Approved In Session</i> |
| 4/19/93 | Cooperating status for The Thlrd International Conference on Industrial Applications of Fuzzy Control and Intelligent Systems (IFIS 93), December 1-3, 1993, Texas A&M, College Station, TX. Conference Chair: Reza Langari Dept. of Mechanical Engineering Texas A&M University College Station, TX 77843-3123 (409) 845-6918 Fax: (409) 862-2420 Email: langari@arya.tamu.edu Conference Co-Chair: John Yen Dept. of Computer Science Texas A&M University College Station, TX 77843-3112 (409) 845-5466 Fax: (409) 847-8578 Email: yen@cs.tamu.edu | Bezdek, Karplus Newcombe, Eberhart, = yes. <i>Approved : 4/26/93</i> |

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|---------|---|---|
| 6/8/93 | <p>Cooperating status for the International Symposium on Integrating Knowledge and Neural Heuristics, May 3-4 1994; Place: Clarion Hotel, Pensacola, FL.</p> <p>Symposium Chairs:</p> <p>Dr. LiMin Fu fu@cis.ufl.edu, (904)392-1485 Dept. of CIS, 301 CSE, University of Florida Gainesville, FL 32611</p> <p>Dr. Chris Lacher lacher@cs.fsu.edu, Dept. of CS Florida State University Tallahassee, FL</p> | <p>Bezdek, Karplus, Eberhart, = yes.</p> <p>Approved : 6/9/93</p> |
| 7/23/93 | <p>Cooperating status for the 3rd Int'l Conference on Fuzzy Logic, Neural Nets and Soft Computing, August 1-7, 1994, Iizuka, Japan.</p> <p>T. Yamakawa, OC Kyushu Inst. of Technology Iizuka, Japan</p> | <p>Bezdek, Nutter, Eberhart, Karplus = Yes.</p> <p>Approved: August 4, 1993</p> |

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Call for Papers

IEEE/Tsukuba International Workshop on Advanced Robotics

— Can robots contribute to prevent environmental deterioration? —

November 8-9, 1993

AIST Tsukuba Research Center
Higashi, Tsukuba, Ibaraki 305, Japan

Cosponsored by: Mechanical Engineering Laboratory (MEL), AIST, MITI
IEEE Industrial Electronics Society
Robotics Society of Japan (RSJ)
Society of Instrument and Control Engineers (SICE)

Technically cosponsored by:
IEEE Robotics and Automation Society
IEEE Neural Network Council
Japan Society of Mechanical Engineers (JSME)

Background: Robots have acquired important positions in manufacturing factories. However, the awareness of the limit of the earth's resources is an incentive to create more environmentally friendly production systems where, for example, the recycling rate is very high. It seems natural that robots are going to adapt themselves to new production systems. What, then, will these new robots look like? What R & D results do we already have, and what do we still need to realize such robots? Concepts, proposals, and technologies to answer these questions will be discussed at the workshop. Optimistic as well as pessimistic views are welcome. Ideas and technologies for other types of environment maintenance robots will also be discussed.

Topics: Robots for environmentally friendly production. Robots for recycling. Production design for recycling robots. Energy conscious robotics. Environment maintenance robots.

| | | |
|-------------------|----------------|------------------------------------|
| Deadlines: | May 31, 1993 | Submission of the summary of paper |
| | June 30, 1993 | Notification of acceptance |
| | August 31 1993 | Submission of the final paper |

Registration Fee: ¥20,000 Yen

For further information contact:

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Namiki, Tsukuba, Ibaraki 305, Japan
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IEEE/Tsukuba International Workshop on Advanced Robotics

— Can robots contribute to prevent environmental deterioration? —

November 8-9, 1993

AIST Tsukuba Research Center
Higashi, Tsukuba, Ibaraki 305, Japan

Cosponsored by:

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INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.



IEEE TECHNICAL ACTIVITIES

IEEE CONFERENCE INFORMATION SCHEDULE

See reverse side for instructions on how to complete this form

CONFERENCE

1. Full title of Conference IEEE/Tsukuba International Workshop on Advanced Robotics
2. Dates of Conference Nov 8-9, 1993
3. Location of Conference (full name and address) AIST Tsukuba Research Center
Agency of Industrial Science and Technology, Higashi, Tsukuba, Ibaraki 305, Japan
4. Estimated Attendance 100
5. Exhibits Yes No
6. Will there be a Conference publication? Yes No If yes, check one box below.
 Conference Record Other (explain) Proceedings

IEEE ENTITY INVOLVEMENT

7. If IEEE entity involvement is either Sponsorship or Cosponsorship as defined on reverse side, enter below the names of all involved IEEE and non-IEEE entities and their percent of financial share.

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| Entity <u>Mechanical Engineering Laboratory (MEL)</u> | % <u>70</u> |
| Entity <u>IEEE Industrial Electronics Society</u> | % <u>10</u> |
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| Entity <u>IEEE Neural Network Council</u> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Entity <u>Japan Society of Mechanical Engineers (JSME)</u> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> |

9. Has the Section within whose geographical boundaries the Conference is being held been notified? Yes No
If yes, who was contacted? _____

Name

Section

10. Has IEEE Conference Insurance form been submitted? Yes No

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INFORMATION CONTACT Kazuo Tani Tel. No. (+81) 298-58-7085
Address Mechanical Engineering Laboratory, Namiki, Tsukuba, Ibaraki 305, Japan

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SUBMITTED BY:

Name Kazuo Tani Tel. No. (+81) 298-58-7085
Address Mechanical Engineering Laboratory, Namiki, Tsukuba, Ibaraki 305, Japan
Conference Position General Chairman

SIGNATURE Kazuo Tani Date March 2, 1993

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NOTE: All income items may be expressed in either U.S. Dollars or in local currency.

Full title of Conference IEEE/Tsukuba International Workshop on Advanced Robotics
Dates of Conference Nov 8-9, 1993

INCOME

| REGISTRATION FEES | Quantity | Fee | Budget | Interim Report | Final Report |
|------------------------------|----------|------------|----------------|----------------|--------------|
| In Advance - Members | 90 | x 20,000 = | \$ ¥ 1,800,000 | \$ | \$ |
| In Advance - Nonmembers | | x = | | | |
| In Advance - Reduced Rate | | x = | | | |
| At Conference - Members | | x = | | | |
| At Conference - Nonmembers | 10 | x 30,000 = | 300,000 | | |
| At Conference - Reduced Rate | | x = | | | |
| Total Registrants | 100 | Total | \$ ¥ 2,100,000 | \$ | \$ |

| CONFERENCE PUBLICATION SALES | Quantity | Fee | Budget | Interim Report | Final Report |
|------------------------------|----------|------------|------------|----------------|--------------|
| To Members | 100 | x 0 = | \$ ¥ 0 | \$ | \$ |
| To Nonmembers | 10 | x 10,000 = | 100,000 | | |
| To IEEE Hq. | 50 | x 6,000 = | 300,000 | | |
| Total Copies | 160 | Total | \$ 400,000 | \$ | \$ |

| EXHIBITS | Quantity | Fee | Budget | Interim Report | Final Report |
|----------|----------|-------|--------|----------------|--------------|
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| Booths | | x = | | | |
| Booths | | x = | | | |
| | | x = | | | |
| Total | | Total | \$ | \$ | \$ |

| SOCIAL FUNCTIONS | Quantity | Fee | Budget | Interim Report | Final Report |
|--|----------|-------|--------|----------------|--------------|
| (Itemize by event on separate sheets.) | | | \$ ¥ 0 | \$ | \$ |
| Total | | Total | \$ ¥ 0 | \$ | \$ |

| ALL OTHER (List here or attach details.) | Budget | Interim Report | Final Report |
|---|-----------------------|----------------|--------------|
| Financial support from Foundation for Promotion of Advanced Automation Technology | \$ ¥ 500,000 | \$ | \$ |
| Financial support from Agency of Industrial Science and Technology | 800,000 | | |
| Total | 1,300,000 | | |
| TOTAL INCOME | \$ ¥ 3,800,000 | | |

NOTE: BE SURE TO ATTACH THIS FORM TO "PART II: EXPENSE" AND MAIL BOTH FORMS TOGETHER.

RETURN TO: IEEE CONFERENCE SERVICES 445 HOES LANE, P.O. BOX 1331, PISCATAWAY, N.J. 08855-1331, U.S.A.



IEEE TECHNICAL ACTIVITIES

IEEE CONFERENCE DETAILED FINANCIAL REPORT - PART II: EXPENSE

This form should be completed only for IEEE sponsored or cosponsored Conferences. The care taken in filling out this report will lead to a more accurate projection of your Conference's net surplus or loss.

NOTE: All expense items may be expressed in either U.S. Dollars or in local currency.

Full title of Conference IEEE/Tsukuba International Workshop on Advanced Robotics

Dates of Conference Nov 8-9, 1993

| PROMOTION | Budget | Interim Report | Final Report |
|--|----------------------|-----------------|-----------------|
| Printing - Call for Papers | \$¥ 50,000 | \$ _____ | \$ _____ |
| Printing - Advance Program | 100,000 | _____ | _____ |
| Printing - Final Program | 100,000 | _____ | _____ |
| Mailing Lists / Labels | 50,000 | _____ | _____ |
| Postage | 100,000 | _____ | _____ |
| Other _____ | _____ | _____ | _____ |
| Total | \$¥ 400,000 | \$ _____ | \$ _____ |
| CONFERENCE PUBLICATION | | | |
| Conference Record / Digest Printing | \$¥ 700,000 | \$ _____ | \$ _____ |
| Author Kits Printing | _____ | _____ | _____ |
| Shipping to Site and IEEE Hq. | 50,000 | _____ | _____ |
| Total | \$¥ 750,000 | \$ _____ | \$ _____ |
| EXHIBITS (Attach detailed statement of all expenses necessary to mount and display exhibits.) | | | |
| Total | \$¥ 0 | \$ _____ | \$ _____ |
| SOCIAL FUNCTIONS (Itemize event on separate sheets.) | | | |
| Total | \$¥ 500,000 | \$ _____ | \$ _____ |
| ADMINISTRATION | | | |
| Insurance & Bonding | \$¥ _____ | \$ _____ | \$ _____ |
| Security & Guard Service | _____ | _____ | _____ |
| Projection Equip. Rent & Operator | 300,000 | _____ | _____ |
| Management, Secretarial Services | 100,000 | _____ | _____ |
| Office Equip. Rental | _____ | _____ | _____ |
| Printing forms, Tickets, Stationery, Etc. | 50,000 | _____ | _____ |
| Posters, Signs, Badges, Etc. | 200,000 | _____ | _____ |
| Telephone | 50,000 | _____ | _____ |
| Transportation | 50,000 | _____ | _____ |
| Gratuities, Etc. (Attach details) | 1,200,000 | \$ _____ | \$ _____ |
| Total | \$¥ 1,950,000 | \$ _____ | \$ _____ |
| ALL OTHER | | | |
| Committee Expenses | \$¥ 50,000 | \$ _____ | \$ _____ |
| Other (Attach Details) | _____ | _____ | _____ |
| Total | 50,000 | _____ | _____ |
| TOTAL EXPENSES | \$¥ 3,650,000 | \$ _____ | \$ _____ |

CURRENCY

State here the currency utilized in above computations, e.g., U.S. Dollars, Swiss Francs, etc.

Currency utilized: Japanese Yen

In the event a currency other than the U.S. Dollar is utilized, it will be necessary to convert to U.S. Dollars - at the current conversion rate - when submitting your final Summary Financial Report to IEEE.

SUBMITTED BY:

Name Kazuo Tani Tel. No. (+81) 298-58-7085
 Address Mechanical Engineering Laboratory, Namiki, Tsukuba, Ibaraki 305, Japan
 Conference Position General Chairman

SIGNATURE Kazuo Tani Date March 2, 1993

NOTE: BE SURE TO ATTACH THIS FORM TO "PART I: INCOME" AND MAIL BOTH FORMS TOGETHER

RETURN TO: IEEE CONFERENCE SERVICES 445 HOES LANE, P.O. BOX 1331, PISCATAWAY, N.J. 08855-1331, U.S.A.



IEEE TECHNICAL ACTIVITIES

SUMMARY FINANCIAL REPORT FOR IEEE SPONSORED OR COSPONSORED CONFERENCES

See reverse side for instructions on how to complete this form

CONFERENCE

1. Full title of Conference IEEE/Tsukuba International Workshop on Advanced Robotics
 2. Dates of Conference Nov 8-9, 1993
 3. Location of Conference (full name and address) AIST Tsukuba Research Center
Agency of Industrial Science and Technology, Higashi, Tsukuba, Ibaraki 305, Japan

TYPE OF REPORT / CURRENCY USED

4. Indicate type of report by checking one box:
 Budget Interim Report Final Report
5. All income and expense figures below must be in U.S. Dollars. For Conferences held outside the U.S.A., indicate here the local currency (e.g., Swiss Francs) and the conversion rate used (local currency units per 1 U.S. Dollar) and date.
 Local currency: Japanese Yen Conversion rate: ¥117/\$ Date of conversion rate: Feb 25, 1993

INCOME

| | Budget | Interim Report | Final Report |
|-----------------------------------|-----------|----------------|--------------|
| 6. Registration Fees | \$ 17,948 | \$ _____ | \$ _____ |
| 7. Conference Publication Sales | 3,418 | _____ | _____ |
| 8. Exhibits | 0 | _____ | _____ |
| 9. Social Functions | 0 | _____ | _____ |
| 10. All Other Conference Receipts | 11,111 | _____ | _____ |
| 11. Total Conference Income | 32,477 | _____ | _____ |
| 12. Advance Loans | _____ | _____ | _____ |
| 13. Total Receipts | \$ _____ | \$ _____ | \$ _____ |

EXPENSE

| | Budget | Interim Report | Final Report |
|-----------------------------------|----------|----------------|--------------|
| 14. Promotion | \$ 3,418 | \$ _____ | \$ _____ |
| 15. Conference Publications | 6,410 | _____ | _____ |
| 16. Exhibits | 0 | _____ | _____ |
| 17. Social Functions | 4,743 | _____ | _____ |
| 18. Administration | 16,666 | _____ | _____ |
| 19. All Other Conference Expenses | 427 | _____ | _____ |
| 20. Total Conference Expense | 31,194 | _____ | _____ |
| 21. Loan Repayments | _____ | _____ | _____ |
| 22. Total Outlays | \$ _____ | \$ _____ | \$ _____ |

SURPLUS / (LOSS)

23. Total Receipts (13) \$ _____ 24. Total Outlays (22) \$ _____
 25. Surplus (Loss) - (Item 23 less Item 24) \$ 1,283

POST CONFERENCE DISTRIBUTION

Surplus (Loss) in Item 25 to be distributed as follows:

| Cosponsor Entity | % Share | \$ Distributed |
|---|-------------------|----------------|
| a. <u>Mechanical Engineering Laboratory (MEL)</u> | 70 | _____ |
| b. <u>IEEE Industrial Electronics Society</u> | 10 | _____ |
| c. <u>Robotics Society of Japan (RSJ)</u> | 10 | _____ |
| d. <u>Society of Instrument and Control Engineers</u> | 10 | _____ |
| | Surplus (Loss) \$ | _____ |

CONFERENCE FINANCIAL INSTITUTION

Name of Bank _____
 Address _____
 Conference Account Title _____ Account No. _____
 Have you requested IEEE Conference Insurance? Yes No

SUBMITTED BY:

Name Kazuo Tani Tel. No. (+81) 298-58-7085
 Address Mechanical Engineering Laboratory, Namiki, Tsukuba, Ibaraki 305, Japan
 Conference Position General Chairman

SIGNATURE Kazuo Tani 108 Date March 2, 1993

RETURN TO: IEEE CONFERENCE SERVICES 445 HOES LANE, P.O. BOX 1331, PISCATAWAY, N.J. 08855-1331, U.S.A.



MECHANICAL ENGINEERING LABORATORY

AGENCY OF INDUSTRIAL SCIENCE AND TECHNOLOGY
MINISTRY OF INTERNATIONAL TRADE AND INDUSTRY

Namiki 1-2, Tsukuba,
Ibaraki,
305 JAPAN
~~Telephone 0298-54-2521~~
~~Fax no. 0298-54-2545~~
Telex 3652570 AIST J

February 26, 1993

IEEE Technical Activities

Additional Explanation of the Financial Report — Part II: Expense
for the

**IEEE/Tsukuba International Workshop on
Advanced Robotics**

November 8-9, 1993
AIST Tsukuba Research Center
Higashi, Tsukuba, Ibaraki 305, Japan

1. Social Functions

Banquet 100 x @5,000 ¥500,000

2. Administration

Gratuities

Support on travel fee to plenary lecturers
3 x @400,000 ¥1,200,000

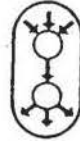
Kazuo Tani

General Chairman:

Dr. Kazuo Tani, Director,
Mechanism Division, Robotics Department
Mechanical Engineering Laboratory
Namiki, Tsukuba, Ibaraki 305
Japan
Tel (+81)298-58-7085
Fax (+81)298-58-7275



NEURAL NETWORKS COUNCIL



Toshio Fukuda
Chair, Publications Committee
August 11th, 1993

PLEASE REPLY TO:
Nagoya University
Department of Mechanical Engineering
Furo-Cho, Chikusa-Ku
Nagoya, Japan
Tel: +81-52-781-5111, Ex. 4478, 2717
FAX: (052) 781-9243
e-mail: d43131a@nucc.cc.nagoya-u.ac.jp

Prof. James C. Bezdek
Meeting Chair, IEEE Neural Networks Council
Nystul Professor
The University of West Florida
Computer Science
11000 University Parkway
Pensacola, Florida 32514-5750
USA

FAX: (904)474-2096

Dear Jim:

I would like to get the approval of technical co-sponsorship of IEEE Neural Networks Council for the following workshop at next AdCom at Seattle. I enclose the call for papers and budget with this letter. Could you please include them as agenda at AdCom on 18th, September?

1994 IEEE/Nagoya University World Wisemen/women Workshop (WWW)
on Fuzzy Logic And Neural Networks/Genetic Algorithms
- Architecture and Applications for Knowledge Acquisition/Adaptation-
General Chair: Takeshi Furuhashi

IEEE/Tsukuba International Workshop on Advanced Robotics
General Chair: Kazuo Tani

Your prompt attentions and kindest consideration to those will be greatly appreciated.

With my best wishes,

Toshio Fukuda/m.d.

Toshio Fukuda
Secretary, IEEE NNc
Dept. of Mechano-Informatics and Systems
Nagoya University
Furo-cho, Chikusa-ku, Nagoya 464-01
Japan
TEL: +81-52-781-5111 ext.4478
FAX: +81-52-781-9243
e-mail: d43131a@nucc.cc.nagoya-u.ac.jp

CC: ✓Dr. Russell C. Eberhart, President, IEEE NNc
Prof. Takeshi Furuhashi, Nagoya Univ.
Dr. Kasuo Tani



Nagoya University
School of Engineering
Department of Electronic-Mechanical Engineering

Furo-cho, Chikusa-ku, Nagoya 464-01 Japan

Telephone +81 52 781 5111

Facsimile +81 52 781 9243

Telex 447 7355

PLEASE REPLY TO:

Takeshi Furuhashi

Nagoya University, School of Eng.

Dept. of Information Electronics

Furo-cho, Chikusa-ku

Nagoya, 464-01 Japan

Tel. +81-52-781-5111 Ext.2792

Fax. +81-52-781-9263

E-mail furu@uchikawa.nuem.nagoya-u.ac.jp

11 August, 1993

Dr. Russell C. Eberhart
President, IEEE Neural Network Council
Research Triangle Institute
P.O. Box 12194
Research Triangle Park, NC 27709
U. S. A.

Dr. Eberhart,

Please find the enclosed call for papers for the "1994 IEEE/Nagoya University World Wisemen/women Workshop (WWW) -On Fuzzy Logic and Neural Networks/Genetic Algorithms-" to be held on 9 and 10 August, 1994, at Nagoya University, Japan. I would greatly appreciate if your society (IEEE Neural Network Council) cooperates with us to hold WWW. I would like to add the name of your society on the list of supporting societies and to have your cooperation in announcing the symposium to the members of your society. I will not require any budgetary support from your society.

Thanking you in advance for your kind correspondence.

With best regards,

古橋武

Takeshi Furuhashi
Chairman of the WWW

CALL FOR PAPERS

1994 IEEE/Nagoya University World Wisemen/women Workshop (WWW)

ON FUZZY LOGIC AND NEURAL NETWORKS/GENETIC ALGORITHMS

-Architecture and Applications for Knowledge Acquisition/Adaptation-

August 9 and 10, 1994

Nagoya University Symposium
Chikusa-ku, Nagoya, JAPAN

Sponsored by Nagoya University

Co-sponsored by
IEEE Industrial Electronics Society

Technically Co-sponsored by
IEEE Neural Network Council
IEEE Robotics and Automation Society
International Fuzzy Systems Association
Japan Society for Fuzzy Theory and Systems
North American Fuzzy Information Processing Society
Society of Instrument and Control Engineers
Robotics Society of Japan

There are growing interests in combination technologies of fuzzy logic and neural networks, fuzzy logic and genetic algorithm for acquisition of experts' knowledge, modeling of nonlinear systems, realizing adaptive systems. The goal of the 1994 IEEE/Nagoya University WWW on Fuzzy Logic and Neural Networks/Genetic Algorithm is to give its attendees opportunities to exchange information and ideas on various aspects of the Combination Technologies and to stimulate and inspire pioneering works in this area. To keep the quality of these workshop high, only a limited number of people are accepted as participants of the workshops. The papers presented at the workshop will be edited and published from the Oxford University Press.

TOPICS:

Combination of Fuzzy Logic and Neural Networks, Combination of Fuzzy Logic and Genetic Algorithm, Learning and Adaptation, Knowledge Acquisition, Modeling, Human Machine Interface

IMPORTANT DATES:

Submission of Abstracts of Papers : April 31, 1994
Acceptance Notification : May 31, 1994
Final Manuscript : July 1, 1994

A partial or full assistance of travel expenses for speakers of excellent papers will be provided by the WWW. The candidates should apply as soon as possible, preferably by Jan. 30, '94.

All correspondence and submission of papers should be sent to

Takeshi Furuhashi, General Chair
Dept. of Information Electronics, Nagoya University
Furo-cho, Chikusa-ku, Nagoya 464-01, JAPAN
TEL: +81-52-781-5111 ext.2792
FAX: +81-52-781-9263
E mail: furu@uchikawa.nuem.nagoya-u.ac.jp

IEEE/Nagoya University WWW:

IEEE/Nagoya University WWW (World Wisemen/women Workshop) is a series of workshops sponsored by Nagoya University and co-sponsored by IEEE Industrial Electronics Society. City of Nagoya, located two hours away from Tokyo, has many electro-mechanical industries in its surroundings such as Mitsubishi, TOYOTA, and their allied companies. Nagoya is a mecca of robotics industries, machine industries and aerospace industries in Japan. The series of workshops will give its attendees opportunities to exchange information on advanced sciences and technologies and to visit industries and research institutes in this area.

*This workshop will be held just after the 3rd International Conference on Fuzzy Logic, Neural Nets and Soft Computing(IIZUKA'94) from Aug. 1 to 7, '94.

WORKSHOP ORGANIZATION

Honorary Chair: Tetsuo Fujimoto (Dean, School of Engineering Nagoya University)

General Chair: Takeshi Furuhashi (Nagoya University)

Advisory Committee:

Chair: Toshio Fukuda (Nagoya University)
Fumio Harashima (University of Tokyo)
Yoshiki Uchikawa (Nagoya University)
Takeshi Yamakawa (Kyushu Institute of Technology)

Steering Committee:

H.Berenji (NASA Ames Research Center)
W.Eppler (University of Karlsruhe)
I.Hayashi (Hannan University)
Y.Hayashi (Ibaraki University)
H.Ichihashi (Osaka Prefectural University)
A.Imura (Laboratory for International Fuzzy Engineering)
M.Jordan (Massachusetts Institute of Technology)
C.-C.Jou (National Chiao Tung University)
E.Khan (National Semiconductor)
R.Langari (Texas A & M University)
H.Takagi (Matsushita Electric Industrial Co., Ltd.)
K.Tanaka (Kanazawa University)
M.Valenzuela-Rendón (Instituto Tecnológico y de Estudios Superiores de Monterrey)
L.-X.Wang (University of California Berkeley)
T.Yamaguchi (Utsunomiya University)
J.Yen (Texas A & M University)



IEEE TECHNICAL ACTIVITIES

SUMMARY FINANCIAL REPORT FOR IEEE SPONSORED OR COSPONSORED CONFERENCES

See reverse side for instructions on how to complete this form

CONFERENCE

1. Full title of Conference 1994 IEEE/Nagoya University World Wise men/women Workshop on Fuzzy Logic and Neural Networks/Genetic Algorithms 2. Dates of Conference Aug. 9-10, 1994
 3. Location of Conference (full name and address) Nagoya University Symposium, Furo-cho Chikusa-ku, Nagoya 464-01 JAPAN

TYPE OF REPORT / CURRENCY USED

4. Indicate type of report by checking one box:
 Budget Interim Report Final Report
5. All income and expense figures below must be in U.S. Dollars. For Conferences held outside the U.S.A., indicate the local currency (e.g., Swiss Francs) and the conversion rate used (local currency units per 1 U.S. Dollar) and date.
 Local currency: Japanese Yen Conversion rate: 110 Yen Date of conversion rate: June 21, 1993

INCOME

| | Budget | Interim Report | Final Report |
|-----------------------------------|--------|----------------|--------------|
| 6. Registration Fees | \$ 27k | \$ | \$ |
| 7. Conference Publication Sales | | | |
| 8. Exhibits | | | |
| 9. Social Functions | | | |
| 10. All Other Conference Receipts | 9k | | |
| 11. Total Conference Income | 36k | | |
| 12. Advance Loans | | | |
| 13. Total Receipts | 36k | | |

EXPENSE

| | Budget | Interim Report | Final Report |
|-----------------------------------|---------|----------------|--------------|
| 14. Promotion | \$ 5.4k | \$ | \$ |
| 15. Conference Publications | 9k | | |
| 16. Exhibits | | | |
| 17. Social Functions | 5.4k | | |
| 18. Administration | 13.6k | | |
| 19. All Other Conference Expenses | 2.6k | | |
| 20. Total Conference Expense | 36k | | |
| 21. Loan Repayments | | | |
| 22. Total Outlays | 36k | | |

SURPLUS / (LOSS)

23. Total Receipts (13) \$ 36k 24. Total Outlays (22) \$ 36k
 25. Surplus (Loss) - (Item 23 less Item 24) \$ 0

POST CONFERENCE DISTRIBUTION

Surplus (Loss) in Item 25 to be distributed as follows:

| Cosponsor Entity | % Share | \$ Distributed |
|-----------------------------|-----------|----------------|
| a. <u>IEEE IES</u> | <u>10</u> | |
| b. <u>Nagoya University</u> | <u>90</u> | |
| c. | | |
| d. | | |
| Surplus (Loss) \$ | | |

CONFERENCE FINANCIAL INSTITUTION

Name of Bank _____
 Address _____
 Conference Account Title _____ Account No. _____
 Have you requested IEEE Conference Insurance? Yes No

SUBMITTED BY:

Name Takeshi Furuhashi Tel. No. (+81) 52-781-5111 ex. 211
 Address Dept. of Information Electronics, Nagoya University, Furo-cho, Chikusa-ku Nagoya 464-01, JA
 Conference Position General Chair

SIGNATURE 古橋 武 (114) Date Aug. 12 '93



IEEE TECHNICAL ACTIVITIES
IEEE CONFERENCE INFORMATION SCHEDULE

See reverse side for instructions on how to complete this form

CONFERENCE

1. Full title of Conference 1994 IEEE/Nagoya University World Wisemen/women Workshop on Fuzzy Logic and Neural Networks/Genetic Algorithms 2. Dates of Conference Aug. 9-10, 1994
3. Location of Conference (full name and address) Nagoya University Symposium, Furo-cho, Chikusa-ku, Nagoya 464-01, JAPAN
4. Estimated Attendance 100 5. Exhibits Yes No
6. Will there be a Conference publication? Yes No If yes, check one box below.
 Conference Record Other (explain) _____

IEEE ENTITY INVOLVEMENT

7. If IEEE entity involvement is either Sponsorship or Cosponsorship as defined on reverse side, enter below the name of all involved IEEE and non-IEEE entities and their percent of financial share.

| | | | |
|--------|--------------------------|---|-----------|
| Entity | <u>IEEE IES</u> | % | <u>10</u> |
| Entity | <u>Nagoya University</u> | % | <u>90</u> |
| Entity | _____ | % | _____ |
| Entity | _____ | % | _____ |

8. If IEEE entity involvement is either Participating or Cooperating as defined on reverse side, enter below the names of all involved IEEE and non-IEEE entities and indicate the involvement of each.

| Entity | | Technically Cosponsoring | |
|--------|--------------------------|-------------------------------------|--------------------------|
| | | Participating | Cooperating |
| Entity | <u>IEEE R & A</u> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Entity | <u>IEEE NNC</u> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Entity | <u>IFSA</u> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Entity | <u>SOFT</u> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| | <u>NAFIPS, RSJ, SICE</u> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

9. Has the Section within whose geographical boundaries the Conference is being held been notified? Yes No
If yes, who was contacted? _____

Name _____ Section _____

10. Has IEEE Conference Insurance form been submitted? Yes No

ADMINISTRATION

For the following Conference officers, enter first name, middle initial and last name, plus complete address and telephone number.

CONFERENCE CHAIRMAN Takeshi Furuhashi Tel. No. (+81) 52-781-5111 ex. 279
Address Dept. of Information Electronics, Nagoya University, Furo-cho, Chikusa-ku, Nagoya, 464-01 JAPAN

INFORMATION CONTACT Takeshi Furuhashi Tel. No. (+81) 52-781-5111 ex. 279
Address _____

COMMITTEE MEMBERS

If available, please attach to this form a complete list of Conference Committee members, their titles, addresses and telephone numbers.

SUBMITTED BY:

Name Takeshi Furuhashi Tel. No. (+81) 52-781-5111 ex. 279
Address Dept. of Information Electronics, Nagoya University, Furo-cho, Chikusa-ku, Nagoya 464-01 JAPAN
Conference Position General Chair

SIGNATURE 古橋 武 (115) Date Aug. 12 '93

RETURN TO: IEEE CONFERENCE SERVICES 445 HOES LANE, P.O. BOX 1331, PISCATAWAY, N.J. 08855-1331, U.S.A.



IEEE TECHNICAL ACTIVITIES
 IEEE CONFERENCE DETAILED FINANCIAL REPORT - PART I: INCOME

This form should be completed only for IEEE sponsored or cosponsored Conferences. The care taken in filling out report will lead to a more accurate projection of your Conference's net surplus or loss.

NOTE: All income items may be expressed in either U.S. Dollars or in local currency.

Full title of Conference 1994 IEEE/Nagoya University World Wise Men/Women Workshop on Fuzzy Logic and Neural Networks/Genetic Algorithms Dates of Conference Aug. 9-10 1994

| INCOME | | | | | |
|---|----------|---------------------|----------------------|-----------------|-----------------|
| REGISTRATION FEES | Quantity | Fee | Budget | Interim Report | Final Report |
| In Advance - Members | 100 | x ¥30,000 = | \$ ¥3,000,000 | \$ | \$ |
| In Advance - Nonmembers | | x _____ = | _____ | _____ | _____ |
| In Advance - Reduced Rate | | x _____ = | _____ | _____ | _____ |
| At Conference - Members | | x _____ = | _____ | _____ | _____ |
| At Conference - Nonmembers | | x _____ = | _____ | _____ | _____ |
| At Conference - Reduced Rate | | x _____ = | _____ | _____ | _____ |
| Total Registrants | | Total | \$ ¥3,000,000 | \$ | \$ |
| CONFERENCE PUBLICATION SALES | | | | | |
| To Members | | x _____ = | \$ _____ | \$ _____ | \$ _____ |
| To Nonmembers | | x _____ = | _____ | _____ | _____ |
| To IEEE Hq. | | x _____ = | _____ | _____ | _____ |
| Total Copies | | Total | \$ _____ | \$ _____ | \$ _____ |
| EXHIBITS | | | | | |
| Tables | | x _____ = | \$ _____ | \$ _____ | \$ _____ |
| Booths | | x _____ = | _____ | _____ | _____ |
| Booths | | x _____ = | _____ | _____ | _____ |
| | | x _____ = | _____ | _____ | _____ |
| | | Total | \$ _____ | \$ _____ | \$ _____ |
| SOCIAL FUNCTIONS (Itemize by event on separate sheets.) | | | | | |
| | | Total | \$ _____ | \$ _____ | \$ _____ |
| ALL OTHER (List here or attach details.) | | | | | |
| <u>Nagoya University</u> | | | \$ ¥1,000,000 | \$ _____ | \$ _____ |
| | | | _____ | _____ | _____ |
| | | | _____ | _____ | _____ |
| | | Total | \$ _____ | \$ _____ | \$ _____ |
| | | TOTAL INCOME | \$ ¥4,000,000 | \$ _____ | \$ _____ |

NOTE: BE SURE TO ATTACH THIS FORM TO "PART II: EXPENSE" AND MAIL BOTH FORMS TOGETHER.

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IEEE TECHNICAL ACTIVITIES
IEEE CONFERENCE DETAILED FINANCIAL REPORT - PART II: EXPENSE

This form should be completed only for IEEE sponsored or cosponsored Conferences. The care taken in filling out this report will lead to a more accurate projection of your Conference's net surplus or loss.

NOTE: All expense items may be expressed in either U.S. Dollars or in local currency.

Full title of Conference 1993 IEEE/Nagoya University World Wisemen/women Workshop on Fuzzy Logic and Neural Networks/Genetic Algorithms Dates of Conference Aug. 9-10 1994

| PROMOTION | Budget | Interim Report | Final Report |
|--|-----------------------|---------------------|-----------------|
| Printing / Call for Papers | \$¥ 300,000 | \$ _____ | \$ _____ |
| Printing / Advance Program | ¥ 100,000 | _____ | _____ |
| Printing / Final Program | ¥ 100,000 | _____ | _____ |
| Mailing Lists / Labels | ¥ 50,000 | _____ | _____ |
| Postage | ¥ 50,000 | _____ | _____ |
| Other _____ | _____ | _____ | _____ |
| Total | \$¥ 600,000 | \$ _____ | \$ _____ |
| CONFERENCE PUBLICATION | | | |
| Conference Record / Digest Printing | \$¥ 1,000,000 | \$ _____ | \$ _____ |
| Author Kits Printing | _____ | _____ | _____ |
| Shipping to Site and IEEE Hq. | _____ | _____ | _____ |
| Total | \$ _____ | \$ _____ | \$ _____ |
| EXHIBITS (Attach detailed statement of all expenses necessary to mount and display exhibits.) | Total | \$ _____ | \$ _____ |
| SOCIAL FUNCTIONS (Itemize event on separate sheets.) | Total | \$ ¥ 600,000 | \$ _____ |
| ADMINISTRATION | | | |
| Insurance & Bonding | \$ - | \$ _____ | \$ _____ |
| Security & Guard Service | _____ | _____ | _____ |
| Projection Equip. Rent & Operator | _____ | _____ | _____ |
| Management, Secretarial Services | ¥ 750,000 | _____ | _____ |
| Office Equip. Rental | ¥ 300,000 | _____ | _____ |
| Printing forms, Tickets, Stationery, Etc. | ¥ 100,000 | _____ | _____ |
| Posters, Signs, Badges, Etc. | ¥ 300,000 | _____ | _____ |
| Telephone | ¥ 50,000 | _____ | _____ |
| Transportation | ¥ 100,000 | _____ | _____ |
| Gratuities, Etc. (Attach details) | ¥ 500,000 | \$ _____ | \$ _____ |
| Total | \$ ¥ 1,500,000 | \$ _____ | \$ _____ |
| ALL OTHER | | | |
| Committee Expenses | \$ ¥ 300,000 | \$ _____ | \$ _____ |
| Other (Attach Details) | _____ | _____ | _____ |
| Total | ¥ 300,000 | \$ _____ | \$ _____ |
| TOTAL EXPENSES | \$ ¥ 4,000,000 | \$ _____ | \$ _____ |

CURRENCY

State here the currency utilized in above computations, e.g., U.S. Dollars, Swiss Francs, etc.

Currency utilized: Japanese Yen

In the event a currency other than the U.S. Dollar is utilized, it will be necessary to convert to U.S. Dollars - at the current conversion rate - when submitting your final Summary Financial Report to IEEE.

SUBMITTED BY:

Name Takeshi Furuhashi Tel. No. (+81)52-781-5111 ex.279
Address Dept. of Information Electronics, Nagoya University, Furo-cho, Chikusa-ku, Nagoya 464-01 JAP
Conference Position General Chair

SIGNATURE 古橋 武 (117) Date Aug. 12 '93

NOTE: BE SURE TO ATTACH THIS FORM TO "PART I: INCOME" AND MAIL BOTH FORMS TOGETHER

RETURN TO: IEEE CONFERENCE SERVICES 445 HOES LANE, P.O. BOX 1331, PISCATAWAY, N.J. 08855-1331, U.S.A.



IEEE TECHNICAL ACTIVITIES

SUMMARY FINANCIAL REPORT FOR IEEE SPONSORED OR COSPONSORED CONFERENCES
 See reverse side for instructions on how to complete this form

CONFERENCE

1. Full title of Conference Consolidated Budget for 1994 World Congress on Computational Intelligence
 2. Dates of Conference June 26 - July 2, 1994
 3. Location of Conference (full name and address) Walt Disney World Dolphin Hotel, 1500 EpCot Resort Blvd, Lake Buena Vista, Florida 32830

TYPE OF REPORT / CURRENCY USED

4. Indicate type of report by checking one box:
 Budget Interim Report Final Report

5. All income and expense figures below must in U.S. Dollars. For Conferences held outside the U.S.A., indicate here the local currency (e.g., Swiss Francs) and the conversion rate used (local currency units per 1 U.S. Dollar) and date

Local currency: U.S. Dollars Conversion rate: _____ Date of Conversion rate: _____

INCOME

| | Budget | Interim Report | Final Report |
|-----------------------------------|---------------------|----------------|--------------|
| 6. Registration Fees | \$ 745,300 | \$ _____ | \$ _____ |
| 7. Conference Publication Sales | 161,300 | _____ | _____ |
| 8. Exhibits | 54,000 | _____ | _____ |
| 9. Social Functions | 5,250 | _____ | _____ |
| 10. All Other Conference Receipts | 198,000 | _____ | _____ |
| 11. Total Conference Income | <u>1,163,850</u> | _____ | _____ |
| 12. Conference Loans | _____ | _____ | _____ |
| 13. Total Receipts | \$ <u>1,163,850</u> | \$ _____ | \$ _____ |

EXPENSE

| | Budget | Interim Report | Final Report |
|-----------------------------------|---------------------|----------------|--------------|
| 14. Promotion | \$ 273,259 | \$ _____ | \$ _____ |
| 15. Conference Publications | 203,948 | _____ | _____ |
| 16. Exhibits | 20,000 | _____ | _____ |
| 17. Social Functions | 152,655 | _____ | _____ |
| 18. Administration | 260,650 | _____ | _____ |
| 19. All Other Conference Expenses | 140,315 | _____ | _____ |
| 20. Total Conference Expense | <u>1,050,827</u> | _____ | _____ |
| 21. Loan Repayments | _____ | _____ | _____ |
| 22. Total Outlays | \$ <u>1,050,827</u> | \$ _____ | \$ _____ |

SURPLUS / (LOSS)

23. Total Receipts (13) \$ 1,163,850 24. Total Outlays (22) \$ 1,050,827
 25. Surplus (Loss)-(Item 23 less Item 24) \$ 113,023

POST CONFERENCE DISTRIBUTION

| Cosponsor Entity | % Share | \$ Distributed |
|-------------------------|---------|----------------|
| a. Neural Net | 95% | _____ |
| b. IEEE Orlando Section | 5% | _____ |
| c. _____ | _____ | _____ |
| d. _____ | _____ | _____ |
| Surplus (Loss) | | \$ _____ |

CONFERENCE FINANCIAL INSTITUTION

Name of Bank National Westminster Bank NJ
 Address One Springfield Avenue, Newark, New Jersey 07103
 Conference Account Title IEEE-WCCI'94 Account No. 14-11-92027
 Have you requested IEEE Conference Insurance? Yes No

SUBMITTED BY:

Name Swamy Laxminarayan Tel. No. 201-982-6775
 Address University of Medicine & Dentistry, 185 So. Orange Ave, Newark, NJ 07103
 Conference Position Finance Director

CONFERENCE SIGNATURE _____ SOCIETY SIGNATURE _____ Date _____

RETURN TO: IEEE CONFERENCE SERVICES
 445 HOES LANE, P.O. BOX 1331, PISCATAWAY, N.J. 08855-1331, U.S.A.
 KEEP A COPY FOR YOUR RECORDS

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IEEE TECHNICAL ACTIVITIES
IEEE CONFERENCE INFORMATION SCHEDULE

See reverse side for instructions on how to complete this form

CONFERENCE

1. Full Title of Conference Consolidated Budget for 1994 World Congress on Computational Intelligence
2. Dates of Conference June 26, - July 2, 199
3. Location of Conference (full name and address) Walt Disney World Dolphin Hotel, 1500 EpCot Resort Blvd., Lake Buena Vista, Florida 32830
4. Estimated Attendance _____ 5. Exhibits Yes No
6. Will there be a Conference Publication? Yes No
If yes, check one: Conference Record Other (explain) _____

7. Identify IEEE entity(s) involved as either Sponsor, Co-Sponsor, Participating or Cooperating and the percentage of involvement. These terms are defined on the reverse side.

| | Type of Involvement | | | | % | Percentage |
|--------------|--------------------------|--------------------------|--------------------------|--------------------------|---|------------|
| | S | CS | P | C | | |
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | % | _____ |
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | % | _____ |
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | % | _____ |
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | % | _____ |

Identify Non-IEEE entity(s) involved and the percentage of involvement:

| | | | | | | |
|--------------|--------------------------|--------------------------|--------------------------|--------------------------|---|-------|
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | % | _____ |
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | % | _____ |

8. Has the section within whose geographical boundaries the Conference is being held been notified? Yes No

If yes, who was contacted? _____

Name

Section

9. Has an IEEE Conference Insurance Form been submitted? Yes No

ADMINISTRATION

For the following Conference officers, enter first name, middle initial and last name, plus complete address and telephone number.

CONFERENCE CHAIRMAN Charles J. Robinson DSC, PE Tel.No. 412-624-8945
 Address School of Health and Rehabilitation Professions, 107B Pennsylvania Hall, University of Pittsburgh, PA 15621 Fax.No. 412-624-8504

INFORMATION CONTACT _____ Tel.No. _____
 Address _____ Fax.No. _____

COMMITTEE MEMBERS

If available, please attach to this form a complete list of Conference Committee members, their titles, addresses, and telephone numbers.

SUBMITTED BY: Swamy Laxminarayan Tel.No. 201-982-6775
 Address University of Medicine & Dentistry, Academic Computing, 185 So. Orange Avenue, Newark, New Jersey 07103 Fax.No. 201-982-7668
 Conference Position Finance Director

SIGNATURE _____ Date _____

RETURN TO: IEEE CONFERENCE SERVICES
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 FAX: (908) 562-1571
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IEEE TECHNICAL ACTIVITIES
 IEEE CONFERENCE DETAILED FINANCIAL REPORT - PART I: INCOME

This form should be completed only for IEEE sponsored or cosponsored Conferences. The care taken in filling out this report will lead to a more accurate projection of your Conference's net surplus or loss.

NOTE: All income items may be expressed in either U.S. Dollars or in local currency.

Full title of Conference Consolidated Budget for 1994 World Congress on Computational Intelligence
 Dates of Conference June 26, - July 2, 19

INCOME

| REGISTRATION FEES | Quantity | Fee | Budget | Interim Report | Final Report |
|---|----------|---------------------|------------|----------------|--------------|
| In Advance-Members | _____ x | _____ | = \$ _____ | \$ _____ | \$ _____ |
| In Advance-Nonmembers | _____ x | _____ | = _____ | _____ | _____ |
| In Advance-Reduced Rate | _____ x | _____ | = _____ | _____ | _____ |
| At Conference-Members | _____ x | _____ | = _____ | _____ | _____ |
| At Conference-Nonmembers | _____ x | _____ | = _____ | _____ | _____ |
| At Conference-Reduced Rate | _____ x | _____ | = _____ | _____ | _____ |
| Total Registrants | _____ | Total | \$ _____ | \$ _____ | \$ _____ |
| CONFERENCE PUBLICATION SALES | | | | | |
| To Members | _____ x | _____ | = \$ _____ | \$ _____ | \$ _____ |
| To Nonmembers | _____ x | _____ | = _____ | _____ | _____ |
| To IEEE Hq. | _____ x | _____ | = _____ | _____ | _____ |
| Total Copies | _____ x | Total | \$ _____ | \$ _____ | \$ _____ |
| EXHIBITS | | | | | |
| Tables | _____ x | _____ | = \$ _____ | \$ _____ | \$ _____ |
| Booths | _____ x | _____ | = _____ | _____ | _____ |
| Booths | _____ x | _____ | = _____ | _____ | _____ |
| | _____ x | _____ | = _____ | _____ | _____ |
| | | Total | \$ _____ | \$ _____ | \$ _____ |
| SOCIAL FUNCTIONS | | | | | |
| (Itemize by event on separate sheets.) | | Total | \$ _____ | \$ _____ | \$ _____ |
| ALL OTHER (List here or attach details.) | | | | | |
| _____ | | | \$ _____ | \$ _____ | \$ _____ |
| _____ | | | _____ | _____ | _____ |
| _____ | | | _____ | _____ | _____ |
| | | Total | \$ _____ | \$ _____ | \$ _____ |
| | | TOTAL INCOME | \$ _____ | \$ _____ | \$ _____ |

NOTE: BE SURE TO COMPLETE AND RETURN ALL FINANCIAL FORMS TOGETHER ("SUMMARY REPORT", "PART I: INCOME", "PART II: EXPENSE" AND "SOCIAL FUNCTIONS").

RETURN TO: IEEE CONFERENCE SERVICES
 445 HOES LANE, P.O. BOX 1331, PISCATAWAY, N.J. 08855-1331, U.S.A.
 KEEP A COPY FOR YOUR RECORDS

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520-00-001



IEEE TECHNICAL ACTIVITIES
 IEEE CONFERENCE DETAILED FINANCIAL REPORT - PART II: EXPENSE

This form should be completed only for IEEE sponsored or cosponsored Conferences. The care taken in filling out this report will lead to a more accurate projection of your Conference's net surplus or loss.

NOTE: All expense items may be expressed in either U.S. Dollars or in local currency.

Full title of Conference Consolidated Budget for 1994 World Congress on Computational Intelligence
 Dates of Conference June 26th. - July 2, 1994

| | Budget | Interim Report | Final Report |
|--|----------|----------------|--------------|
| PROMOTION | | | |
| Printing/Call for Papers | \$ _____ | \$ _____ | \$ _____ |
| Printing/Advance Program | _____ | _____ | _____ |
| Printing/Final Program | _____ | _____ | _____ |
| Mailing Lists/Labels | _____ | _____ | _____ |
| Postage | _____ | _____ | _____ |
| Other _____ | _____ | _____ | _____ |
| Total | \$ _____ | \$ _____ | \$ _____ |
| CONFERENCE PUBLICATION | | | |
| Conference Record/Digest Printing | \$ _____ | \$ _____ | \$ _____ |
| Author Kits Printing | _____ | _____ | _____ |
| Shipping to Site and IEEE Hq. | _____ | _____ | _____ |
| Total | \$ _____ | \$ _____ | \$ _____ |
| EXHIBITS (Attach detailed statement of all expenses necessary to mount and display exhibits.) | | | |
| Total | \$ _____ | \$ _____ | \$ _____ |
| SOCIAL FUNCTIONS (Itemize event on separate sheets.) | | | |
| Total | \$ _____ | \$ _____ | \$ _____ |
| ADMINISTRATION | | | |
| Insurance & Bonding | \$ _____ | \$ _____ | \$ _____ |
| Security & Guard Service | _____ | _____ | _____ |
| Projection Equip. Rent & Operator | _____ | _____ | _____ |
| Management Secretarial Services | _____ | _____ | _____ |
| Office Equip. Rental | _____ | _____ | _____ |
| Printing forms Tickets, Stationery, Etc. | _____ | _____ | _____ |
| Posters, Signs, Badges, Etc. | _____ | _____ | _____ |
| Telephone | _____ | _____ | _____ |
| Transportation | _____ | _____ | _____ |
| Gratuities, Etc. (Attach Details) | _____ | _____ | _____ |
| Total | \$ _____ | \$ _____ | \$ _____ |
| ALL OTHER | | | |
| Committee Expenses | \$ _____ | \$ _____ | \$ _____ |
| Other (Attach Details) | _____ | _____ | _____ |
| Total | \$ _____ | \$ _____ | \$ _____ |
| TOTAL EXPENSES | \$ _____ | \$ _____ | \$ _____ |

CURRENCY

State here the currency utilized in above computations, e.g., U.S. Dollars, Swiss Francs, etc.

Currency used: _____

In the event a currency other than the U.S. Dollar is utilized, it will be necessary to convert to U.S. Dollars - at the current conversion rate when submitting your final Summary Financial Report to IEEE.

SUBMITTED BY:

Name _____ Tel. No. () _____
 Address _____
 Conference Position _____

SIGNATURE _____ Date _____

NOTE: BE SURE TO COMPLETE AND RETURN ALL FINANCIAL FORMS TOGETHER ("SUMMARY REPORT", "PART I: INCOME", "PART II: EXPENSE" AND "SOCIAL FUNCTIONS").

RETURN TO: IEEE CONFERENCE SERVICES
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SOCIAL FUNCTIONS

(1) Coffee, pastries, etc., between sessions
No. Breaks X No. people X \$/person _____ \$ _____ \$ _____

(2) Luncheons
No. Luncheons X No. people X \$/person _____ \$ _____ \$ _____

(3) Receptions
No. Receptions X No. people X \$/person _____ \$ _____ \$ _____

(4) Banquets
No. Banquets X No. people X \$/person _____ \$ _____ \$ _____

(5) Speakers Hospitality
No. people X \$/person _____ \$ _____ \$ _____

(6) Transportation (courtesy bus, etc.).....\$ _____ \$ _____

Companies providing chartered bus services must submit proof of a current and valid certificate of insurance during the dates of the event with coverage of at least 1 million dollars. A copy of this certificate should be submitted with the IEEE Conference Insurance form. IEEE Insurance coverage does not cover boat or air transportation.

(7) Other social functions expenses (specific).....\$ _____ \$ _____

TOTAL SOCIAL FUNCTION EXPENSES \$ _____ \$ _____

SOCIAL COST PER ATTENDEE \$ _____ \$ _____

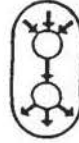
NOTE: BE SURE TO COMPLETE AND RETURN ALL FINANCIAL FORMS TOGETHER ("PART I: INCOME", "PART II: EXPENSE", "SOCIAL FUNCTIONS" AND "SUMMARY REPORT").

RETURN TO: IEEE CONFERENCE SERVICES
445 HOES LANE, P.O. BOX 1331, PISCATAWAY, N.J. 08855-1331, U.S.A.
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NEURAL NETWORKS COUNCIL



Toshio Fukuda
Chair, Publications Committee

July 16th, 1993

Prof. Russell Eberhart
Research Triangle Institute
P.O. Box 12194
Research Triangle Park, NC 27709
USA

PLEASE REPLY TO:

Nagoya University
Department of Mechanical Engineering
Furo-Cho, Chikusa-Ku
Nagoya, Japan
Tel: +81-52-781-5111, Ex. 4478, 2717
FAX: (052) 781-9243
e-mail: d43131a@nucc.cc.nagoya-u.ac.jp

Dear Russ:

We are planning to hold the Third IEEE International Workshop on Robot and Human Communication (RO-MAN'94 NAGOYA) from July 18 to 20 in 1994, at Nagoya University. We would like to hold it technically co-sponsored by IEEE Neural Networks Council. Could you please add this as one of agenda of the next AdCom? I enclose the tentative budget for approval.

Thank you for your kind consideration in advance.

With my best wishes,

A handwritten signature in cursive script that reads "Toshio Fukuda".

Prof. Toshio Fukuda
Secretary, IEEE NNc
Dept. of Mechano-Informatics and Systems
Nagoya University
Furo-cho, Chikusa-ku, Nagoya 464-01
Japan
TEL: +81-52-781-5111 ext.4478
FAX: +81-52-781-9243
e-mail: d43131a@nucc.cc.nagoya-u.ac.jp

CC: Prof. J. Bezdek
Enclosure

(Proposals)

3rd IEEE International Workshop
o n
ROBOT AND HUMAN COMMUNICATION
RO-MAN'94 NAGOYA

July 18-20, 1994
Nagoya University, Nagoya, Japan

Cosponsored by : IEEE Industrial Electronics Society
Society of Instrument and Control Engineers
Robotics Society of Japan
Japan Society of Mechanical Engineers
Institute of Electronics, Information and
Communication Engineers
New Technology Foundation

Technically Co-sponsored by: IEEE Society on Robotics and Automation
IEEE Neural Networks Council
Institute of Electrical Engineers in Japan
Information Processing Society of Japan
Japan Psychology Association
Japanese Neural Network Society
Japan Society for Fuzzy Theory and Systems

Hosted by : Nagoya University
General Chairperson : Toshio Fukuda, Professor (Nagoya University)
Program Chairpersons : Hisato Kobayashi, Professor (Hosei University)
Fumio Hara, Professor (Science Univ. of Tokyo)
Hiroshi Harashima, Professor (The Univ. of Tokyo)

The purpose of the 3rd international workshop is to provide an opportunity for the leading researchers of the world to broaden their horizon through discussions on various fields of robot/computer and human communication. It will be held during July 20-22 at the campus of Nagoya University. The campus with good facility in Nagoya can provide an excellent forum for informal discussions. There will be plenary, tutorial sessions, oral/poster technical sessions and exhibitions on these topics. The 3rd international workshop will focus on the following topics but any subjects related to communication between robot/computer and human will be also welcome. Papers will be reviewed and classified into oral and poster presentation by the program committee.

- Human-Machine Interaction
- Intelligent Robots
- Facial and Vocal Expressions
- Medical Robots
- Robot-Human Collaboration
- Nonverbal Communication
- Kansei Information Processing
- Intelligent Teleoperation & Teaching
- Emotional Communication
- Computational Psychology
- Artificial Emotions
- Mental Models
- Multimedia Interface
- Virtual Environments

Authors are invited to submit four copies of an extended summary of 300-600 words together with one or two figures most informative until 15th February, 1994 to Professor Toshio Fukuda.

Department of Mechano-Informatics and Systems
Nagoya University
Furo-cho, Chikusa-ku, Nagoya, 464-01, JAPAN
Phone: +81-52-781-5111 Ext. 4478,
Fax : +81-52-781-9243
E-mail: d43131a@nucc.cc.nagoya-u.ac.jp

Proposals for tutorial and special sessions are also welcome and should be submitted to the above address before 1st February, 1994.

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IEEE TECHNICAL ACTIVITIES
IEEE CONFERENCE INFORMATION SCHEDULE

See reverse side for instructions on how to complete this form

CONFERENCE

1. Full title of Conference 3rd IEEE International Workshop on Robot and Human Communication
 2. Dates of Conference July 18-20, 1994
 3. Location of Conference (full name and address) Nagoya University,
Furo-cho, Chikusa-ku, Nagoya 464-01, JAPAN
 4. Estimated Attendance 150
 5. Exhibits Yes No
 6. Will there be a Conference publication? Yes No If yes, check one box below.
 Conference Record Other (explain) Proceedings

IEEE ENTITY INVOLVEMENT

7. If IEEE entity involvement is either Sponsorship or Cosponsorship as defined on reverse side, enter below the name of all involved IEEE and non-IEEE entities and their percent of financial share.

| | | | |
|--------|--|---|-----------|
| Entity | <u>IEEE Industrial Electronics Society</u> | % | <u>55</u> |
| Entity | <u>Society of Instrument and Control Engineers</u> | % | <u>15</u> |
| Entity | <u>Robotics Society of Japan</u> | % | <u>15</u> |
| Entity | <u>Japan Society of Mechanical Engineers</u> | % | <u>15</u> |

8. If IEEE entity involvement is either Participating or Cooperating as defined on reverse side, enter below the names all involved IEEE and non-IEEE entities and indicate the involvement of each.

| Entity | Type of Involvement | |
|--|-------------------------------------|--------------------------|
| | Participating | Cooperating |
| <u>IEEE Society on Robotics and Automation</u> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <u>IEEE Neural Networks Council</u> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> |
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> |

9. Has the Section within whose geographical boundaries the Conference is being held been notified? Yes No
 If yes, who was contacted? _____

Name _____ Section _____

10. Has IEEE Conference Insurance form been submitted? Yes No

ADMINISTRATION

For the following Conference officers, enter first name, middle initial and last name, plus complete address and telephone number.

CONFERENCE CHAIRMAN Toshio Fukuda Fax. No. (+81) 52-781-9243
 Tel. No. (+81) 52-781-5111 (Ext. 4)
 Address Nagoya University, Furo-cho, Chikusa-ku, Nagoya 464-01, JAPAN

INFORMATION CONTACT Toshio Fukuda Tel. No. (+81) 52-781-5111 (Ext. 44)
 Address Nagoya University, Furo-cho, Chikusa-ku, Nagoya 464-01, JAPAN

COMMITTEE MEMBERS

If available, please attach to this form a complete list of Conference Committee members, their titles, addresses and telephone numbers.

SUBMITTED BY:

Name Toshio Fukuda Tel. No. (+81) 52-781-5111 (Ext. 44)
 Address Nagoya University, Furo-cho, Chikusa-ku, Nagoya 464-01, JAPAN
 Conference Position _____

SIGNATURE Toshio Fukuda Date 15/6/93

RETURN TO: IEEE CONFERENCE SERVICES 445 HOES LANE, P.O. BOX 1331, PISCATAWAY, N.J. 08855-1331, U.S.A



IEEE TECHNICAL ACTIVITIES

SUMMARY FINANCIAL REPORT FOR IEEE SPONSORED OR COSPONSORED CONFERENCES

See reverse side for instructions on how to complete this form

CONFERENCE

1. Full title of Conference 3rd IEEE International Workshop on Robot and Human Communication
 2. Dates of Conference July 18-20, 1994
 3. Location of Conference (full name and address) Nagoya University, Furo-cho, Chikusa-ku, Nagoya 464-01, JAPAN

TYPE OF REPORT / CURRENCY USED

4. Indicate type of report by checking one box:

Budget Interim Report Final Report

5. All income and expense figures below must be in U.S. Dollars. For Conferences held outside the U.S.A., indicate the local currency (e.g., Swiss Francs) and the conversion rate used (local currency units per 1 U.S. Dollar) and date.

Local currency: Japanese Yen Conversion rate: 114 Yen / 1\$ Date of conversion rate: April 27, 1993

INCOME

| | Budget | Interim Report | Final Report |
|-----------------------------------|-----------------|----------------|--------------|
| 6. Registration Fees | \$ 34,649.- | \$ | \$ |
| 7. Conference Publication Sales | 4,386.- | | |
| 8. Exhibits | 2,193.- | | |
| 9. Social Functions | 0 | | |
| 10. All Other Conference Receipts | 14,035.- | | |
| 11. Total Conference Income | <u>55,263.-</u> | | |
| 12. Advance Loans | 0 | | |
| 13. Total Receipts | <u>55,263.-</u> | | |

EXPENSE

| | Budget | Interim Report | Final Report |
|-----------------------------------|-----------------|----------------|--------------|
| 14. Promotion | \$ 8,684.- | \$ | \$ |
| 15. Conference Publications | 8,232.- | | |
| 16. Exhibits | 2,632.- | | |
| 17. Social Functions | 10,526.- | | |
| 18. Administration | 20,176.- | | |
| 19. All Other Conference Expenses | 2,947.- | | |
| 20. Total Conference Expense | <u>54,197.-</u> | | |
| 21. Loan Repayments | 0 | | |
| 22. Total Outlays | <u>54,197.-</u> | | |

SURPLUS / (LOSS)

23. Total Receipts (13) \$ 55,263.- 24. Total Outlays (22) \$ 54,197.-
 25. Surplus (Loss) - (Item 23 less Item 24) \$ 965.-

POST CONFERENCE DISTRIBUTION

Surplus (Loss) in Item 25 to be distributed as follows:

| Cosponsor Entity | % Share | \$ Distributed |
|-------------------|---------|----------------|
| a. _____ | _____ | _____ |
| b. _____ | _____ | _____ |
| c. _____ | _____ | _____ |
| d. _____ | _____ | _____ |
| Surplus (Loss) \$ | | _____ |

CONFERENCE FINANCIAL INSTITUTION

Name of Bank _____
 Address _____
 Conference Account Title _____ Account No. _____
 Have you requested IEEE Conference Insurance? Yes No

SUBMITTED BY:

Name Toshio Fukuda Tel. No. (+81) 52-781-5111 (Ext. _____)
 Address Nagoya University, Furo-cho, Chikusa-ku, Nagoya 464-01, JAPAN
 Conference Position _____

SIGNATURE Toshio Fukuda 126 Date 15 / 6 / 94

RETURN TO: IEEE CONFERENCE SERVICES 445 HOES LANE, P.O. BOX 1331, PISCATAWAY, N.J. 08855-1331



IEEE TECHNICAL ACTIVITIES
 IEEE CONFERENCE DETAILED FINANCIAL REPORT - PART I: INCOME

This form should be completed only for IEEE sponsored or cosponsored Conferences. The care taken in filling out the report will lead to a more accurate projection of your Conference's net surplus or loss.

NOTE: All income items may be expressed in either U.S. Dollars or in local currency.

Full title of Conference 3rd IEEE International Workshop on Robot and Human Communication
 Dates of Conference July 18-20, 1994

| INCOME | | | | | | |
|--|------------|--------------------|---|-----------------------|-----------------------|-----------------|
| REGISTRATION FEES | Quantity | Fee | ¥ | Budget | Interim Report | Final Report |
| In Advance - Members | <u>100</u> | x <u>¥30,000-</u> | = | <u>\$ 3,000,000-</u> | \$ _____ | \$ _____ |
| In Advance - Nonmembers | | x _____ | = | _____ | _____ | _____ |
| In Advance - Reduced Rate | <u>40</u> | x <u>¥15,000-</u> | = | <u>600,000-</u> | _____ | _____ |
| At Conference - Members | <u>10</u> | x <u>¥25,000-</u> | = | <u>250,000-</u> | _____ | _____ |
| At Conference - Nonmembers | | x _____ | = | _____ | _____ | _____ |
| At Conference - Reduced Rate | | x _____ | = | _____ | _____ | _____ |
| Total Registrants | <u>150</u> | Total | | ¥\$ 3,950,000- | \$ _____ | \$ _____ |
| CONFERENCE PUBLICATION SALES | | | | | | |
| To Members | <u>150</u> | x <u>0</u> | = | <u>¥\$ 0</u> | \$ _____ | \$ _____ |
| To Nonmembers | <u>10</u> | x <u>¥10,000-</u> | = | <u>100,000-</u> | _____ | _____ |
| To IEEE Hq. | <u>50</u> | x <u>¥8,000-</u> | = | <u>400,000-</u> | _____ | _____ |
| Total Copies | <u>210</u> | Total | | ¥\$ 500,000- | \$ _____ | \$ _____ |
| EXHIBITS | | | | | | |
| Tables | <u>3</u> | x <u>¥50,000-</u> | = | <u>¥\$ 150,000-</u> | \$ _____ | \$ _____ |
| Booths | <u>1</u> | x <u>¥100,000-</u> | = | <u>100,000-</u> | _____ | _____ |
| Booths | | x _____ | = | _____ | _____ | _____ |
| | | x _____ | = | _____ | _____ | _____ |
| | | Total | | ¥\$ 250,000- | \$ _____ | \$ _____ |
| SOCIAL FUNCTIONS | | | | | | |
| (Itemize by event on separate sheets.) | | | | Total | ¥\$ 0 | \$ _____ |
| ALL OTHER (List here or attach details.) | | | | | | |
| <u>Financial Support from New Tech. Foundation</u> | | | | <u>¥\$ 1,000,000-</u> | \$ _____ | \$ _____ |
| <u>Financial Support from Private Foundations</u> | | | | <u>600,000-</u> | _____ | _____ |
| | | | | Total | ¥\$ 1,600,000- | \$ _____ |
| | | | | TOTAL INCOME | ¥\$ 6,300,000- | \$ _____ |

NOTE: BE SURE TO ATTACH THIS FORM TO "PART II: EXPENSE" AND MAIL BOTH FORMS TOGETHER.



IEEE TECHNICAL ACTIVITIES
 IEEE CONFERENCE DETAILED FINANCIAL REPORT - PART II: EXPENSE

This form should be completed only for IEEE sponsored or cosponsored Conferences. The care taken in filling out report will lead to a more accurate projection of your Conference's net surplus or loss.

NOTE: All expense items may be expressed in either U.S. Dollars or in local currency.

Full title of Conference 3rd IEEE International Workshop on Robot and Human Communication
 Dates of Conference July 18-20, 1994

| PROMOTION | Budget | Interim Report | Final Report |
|--|----------------------------|----------------|--------------|
| Printing / Call for Papers | ¥ 90,000.- | \$ | \$ |
| Printing / Advance Program | 300,000.- | | |
| Printing / Final Program | 200,000.- | | |
| Mailing Lists / Labels | 100,000.- | | |
| Postage | 300,000.- | | |
| Other | | | |
| Total | ¥ 990,000.- | \$ | \$ |
| CONFERENCE PUBLICATION | | | |
| Conference Record / Digest Printing | ¥ 900,000.- | \$ | \$ |
| Author Kits Printing | 50,000.- | | |
| Shipping to Site and IEEE Hq. | | | |
| Total | ¥ 950,000.- | \$ | \$ |
| EXHIBITS (Attach detailed statement of all expenses necessary to mount and display exhibits.) | Total ¥ 300,000.- | \$ | \$ |
| SOCIAL FUNCTIONS (Itemize event on separate sheets.) | Total ¥ 7,200,000.- | \$ | \$ |
| ADMINISTRATION | | | |
| Insurance & Bonding | ¥ | \$ | \$ |
| Security & Guard Service | | | |
| Projection Equip. Rent & Operator | 270,000.- | | |
| Management, Secretarial Services | 230,000.- | | |
| Office Equip. Rental | | | |
| Printing forms, Tickets, Stationery, Etc. | 50,000.- | | |
| Posters, Signs, Badges, Etc. | 300,000.- | | |
| Telephone | 100,000.- | | |
| Transportation | 100,000.- | | |
| Gratuities, Etc. (Attach details) | 1,250,000.- | \$ | \$ |
| Total | ¥ 2,300,000.- | \$ | \$ |
| ALL OTHER | | | |
| Committee Expenses | ¥ 50,000.- | \$ | \$ |
| Other (Attach Details) | 400,000.- | | |
| Total | ¥ 450,000.- | \$ | \$ |
| TOTAL EXPENSES | ¥ 6,190,000.- | \$ | \$ |

CURRENCY

State here the currency utilized in above computations, e.g., U.S. Dollars, Swiss Francs, etc.

Currency utilized: Japanese Yen

In the event a currency other than the U.S. Dollar is utilized, it will be necessary to convert to U.S. Dollars - at the current conversion rate - when submitting your final Summary Financial Report to IEEE.

SUBMITTED BY:

Name Toshio Fukuda Tel. No. (+81) 52-781-5111 (Ext)
 Address Nagoya University, Furo-cho, Chikusa-ku, Nagoya 464-01, JAPAN
 Conference Position _____

SIGNATURE Toshio Fukuda Date 15/6/94

NOTE: BE SURE TO ATTACH THIS FORM TO "PART I: INCOME" AND MAIL BOTH FORMS TOGETHER

RETURN TO: IEEE CONFERENCE SERVICES 445 HOES LANE, P.O. BOX 1331, PISCATAWAY, N.J. 08855-1331, U.S.A.

1993

Bezdek, Chair
Professor
University of West Florida
Tallahassee
University Parkway
Tallahassee, Florida 32314-5750

member of IEEE for nearly 15 years. I have an extensive background in robotics in both the U.S. and Japan. Through my work and my travels, I have become aware of the application of engineering tools (Fuzzy Set Theory, Neural Networks, etc.) and advanced computer systems to the problems in finance. Through my work with investment managers, I have discovered that many financial institutions are employing engineers and computer scientists to create financial mathematical models and build trading systems. A proposal of having a forum for discussion of ideas at the intersection of the fields of engineering, computer science and finance has been well-received by practitioners in all three areas. Jack Marshall, Director of the Int'l Association of Financial Engineers (IAFE), has been particularly supportive of a joint forum. The IAFE is an association of financial practitioners, including some of the most prominent names in finance, and I would like to foster the creative application of technology to solve problems in finance.

I am submitting a proposal and preliminary budget for a Conference on Computational and Financial Engineering to be cosponsored by the IEEE Neural Networks Council and is planned to take place in New York City, from April 9 to April 12, 1995.

I will formally present the proposal and other conference documentation to the next meeting of the Meetings Committee and the Administration Committee of the IEEE Neural Networks Council in September in Seattle. I therefore request that you, as Meetings Committee Chair, please have this proposal placed on the Committee's agenda and that a copy of the proposal be reproduced in the Administration Committee Book for distribution to Board members at the September meeting. An original copy of the enclosed materials has been placed in the office of Dr. Russell Eberhart for convenience. Please feel free to contact me at my office (206-776-9297) or fax me (206-776-9297).



Dr. Russell Eberhart, President
Eberhart Community Ventures
10000 1st S.E.
Seattle, WA 98102-5718

I believe that enough quality work and ideas are being produced in this cross-disciplinary area and I would like to timely consider a transactions publication that would address the needs and interests of these engineers working in the field. We can explore this additional idea at the next meeting.

Respectfully,
Dr. Russell Eberhart, President, IEEE Neural Networks Council
Jack Marshall, Andrew Lo, Bob Marks, Doug Stone

Proposal for Conference on

Computational Intelligence for Financial Engineering

Purpose of Conference

The purpose of the Conference on Computational Intelligence for Financial Engineering is to provide a forum for free discussion of new ideas, applications, and research, to inspire pioneering work in the application of computational intelligence and mathematical techniques and methods to the problems of finance and investment.

IAFE seeks to foster the development and the creative application of financial engineering to solve problems in finance. The IEEE Neural Networks Council advances scientific, literary and educational efforts in the areas of neural networks, fuzzy logic, and other intelligent computational systems. Intelligent computational systems are becoming increasingly important in financial applications, particularly in the areas of portfolio management, proprietary trading systems, risk management, and corporate finance. To foster interdisciplinary research in the applications of intelligent computational systems to financial engineering, we, the Organizational Committee, propose that the IAFE and the IEEE Neural Networks Council cosponsor a Conference on the subject in April, 1995.

Topics of Interest

- | | | | |
|---|------------------------|----------------------|------------------------|
| Financial Engineering Applications | • Asset Allocation | • Trading Systems | • Corporate Finance |
| | • Forecasting | • Hedging Strategies | • Options Pricing |
| | • Risk Arbitrage | • Risk Management | • Complex Systems |
| | • Currency Models | • Technical Analysis | • Portfolio Management |
| Applications & Models | • Fuzzy Systems | • Neural Networks | • Stochastic Processes |
| | • Chaos Theory | • Genetic Algorithms | • Probabilistic Models |
| | • Dynamic Optimization | • Signal Processing | • Parallel Computing |
| | | • Harmonic Analysis | • Time Series Analysis |

Meeting Location

Steve Marlin of Meeting Management has proposed the Holiday Inn Crown Plaza New York City, April 9-12, 1995. The venue is located close to the New York financial district where most practitioners of financial engineering are located.

Organizational Committee

General Conference Co-Chairs: John F. Marshall, St. John's University

International Chair: Apostolos P. N. Refenes, London Business School

International Liaison Chair: Toshio Fukuda, Nagoya University

Program Co-Chairs: Andrew W. Lo, Sloan School of Business, MIT
Robert J. Marks, University of Washington

| | |
|---------------------------|--|
| Organizational Chair: | Scott H. Mathews, MPCV |
| Tutorial Co-Chairs: | Douglas Stone, Frank Russell Joe R. Brown, MCC David Schwartz, Mitsubishi Bank |
| Plenary Chair: | Douglas Stone, Frank Russell |
| Finance Chair: | Christine Alan, Motorola |
| Exhibits Chair: | Steve Piche, MCC |
| Publications Chair: | Donald Wunsch, Texas Tech University |
| Local Arrangements Chair: | John F. Marshall, St. John's University (protem) |

All of the above have been officially asked to accept positions within the conference and have accepted. Some committee chairs remain unfilled, such as Publicity Chair. We are now searching for Honorary Chairs.

Meeting Management

The committee proposes that Steve Marlin and Meeting Management (5665 Oberlin Drive, Suite 110, San Diego, CA 92121) act as the meeting management organization for the Conference on Computational Intelligence for Financial Engineering. Meeting Management has run several successful meetings with the NNC in the past, resulting in an efficient and hence, affordable meeting management organization.

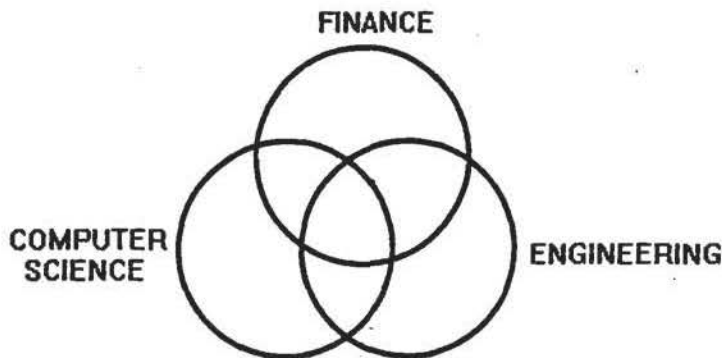
Budget

A budget proposal has been prepared for an estimated 250 registrants.

Related Meetings

IEEE 3rd Int'l Workshop on A.I. in Economics and Management, August 25- 27, 1993, Portland
1st Int'l Workshop Neural Networks in the Capital Market, November 18-19, 1993, London
1993 Financial Engineering Conference, December 2-3, 1993, New York
IEEE World Conference on Computational Intelligence, June 26 - July 2, 1994, Orlando

Conference Logo



8/4/1993

**IEEE BUDGET
 CONFERENCE ON COMPUTATIONAL INTELLIGENCE FOR FINANCIAL ENGINEERING
 APRIL 9-12, 1995**

| US DOLLARS | QUANTITY | VALUE EACH | BUDGET PRICE |
|--|----------|------------|------------------|
| INCOME | | | |
| 6. REGISTRATION FEES | | | |
| Registered by 1/20/95 | | | |
| Members | 43 | \$350.00 | \$15,050 |
| Non-Members | 15 | \$450.00 | \$6,750 |
| Reduced Rate | 9 | \$140.00 | \$1,260 |
| Registered by 2/10/95 | | | |
| Members | 27 | \$400.00 | \$10,800 |
| Non-Members | 14 | \$500.00 | \$7,000 |
| Reduced Rate | 5 | \$190.00 | \$950 |
| Registered at Conference | | | |
| Members | 109 | \$450.00 | \$49,050 |
| Non-Members | 23 | \$550.00 | \$12,650 |
| Reduced Rate | 5 | \$240.00 | \$1,200 |
| TOTAL REGISTRATION | | | \$104,710 |
| Members | 179 | | |
| Non-Members | 52 | | |
| Reduced Rate | 19 | | |
| | 250 | | |
| 7. CONFERENCE PUBLICATION SALES | | | |
| To IEEE Headquarters | 100 | \$30.00 | \$3,000 |
| TOTAL CONFERENCE PUBLICATION SALES | | | \$3,000 |
| 8. EXHIBITS | | | |
| Tables/Publishers | 4 | \$275.00 | \$1,100 |
| Booths/All Others | 15 | \$500.00 | \$7,500 |
| TOTAL EXHIBITS | | | \$8,600 |
| 9. SOCIAL FUNCTIONS | | | |
| 10. ALL OTHER CONFERENCE RECEIPTS | | | |
| Tutorial - Single | 50 | \$250.00 | \$12,500 |
| Tutorial - Multiple | 50 | \$375.00 | \$18,750 |
| TOTAL ALL OTHER CONFERENCE RECEIPTS | | | \$31,250 |
| 11. TOTAL CONFERENCE INCOME | | | |
| | | | \$147,560 |
| 12. CONFERENCE LOANS | | | |
| IEEE (80%) | | | \$48,000 |
| IAFE (20%) | | | \$12,000 |
| TOTAL CONFERENCE LOANS | | | \$60,000 |
| 13. TOTAL RECEIPTS | | | |
| | | | \$207,560 |

8/4/1993

IEEE BUDGET
CONFERENCE ON COMPUTATIONAL INTELLIGENCE FOR FINANCIAL ENGINEERING
APRIL 9-12, 1995

| US DOLLARS | QUANTITY | VALUE EACH | BUDGET PRICE |
|-------------------------------------|----------|------------|-----------------|
| EXPENSES | | | |
| 14. PROMOTION: | | | |
| Brochure Printing | | | \$11,200 |
| Program/production and printing | | | \$2,900 |
| Mailing lists/Labels | | | \$6,330 |
| Postage | | | \$7,450 |
| Mailing House | | | \$1,267 |
| Advertising | | | \$10,550 |
| Conference Posters | | | \$630 |
| Other | | | |
| TOTAL PROMOTION | | | \$40,327 |
| 15. CONFERENCE PUBLICATION | | | |
| Tutorials Syllabus/Notebooks | | | \$530 |
| Conference Record/Digest Printing | | | \$8,440 |
| Communication w/auth./sess chairs | | | \$100 |
| Shipping (Conference/IEEE) | | | \$200 |
| TOTAL CONFERENCE PUBLICATION | | | \$9,270 |
| 16. EXHIBITS | | | |
| Signage | | | \$1,075 |
| Prospectus and Contract | | | \$400 |
| Furniture | | | \$525 |
| Comm w. Exhibitors | | | \$50 |
| TOTAL EXHIBITS | | | \$2,050 |
| 17. SOCIAL FUNCTIONS | | | |
| Org. Committee Breakfast | | | \$315 |
| Coffee Breaks/Tutorial | | | \$750 |
| Coffee Breaks/Committee | | | \$250 |
| Coffee Breaks/Conference | | | \$3,525 |
| Opening Reception Sunday Night | | | \$5,275 |
| Reception Lunch Monday | | | \$6,330 |
| TOTAL SOCIAL FUNCTIONS | | | \$16,445 |
| 18. ADMINISTRATION | | | |
| Insurance and Bonding | | | \$100 |
| Security and guard service | | | \$1,125 |
| Audio-video rental and operation | | | \$5,200 |
| Management Fee (Meeting Management) | | | \$18,000 |
| Office Equipment Rental | | | \$475 |
| Badges | | | \$275 |
| Telephone, FAX, Copying | | | \$2,110 |
| Regist. assis/Bookkeeping | | | \$525 |
| Registration supplies | | | \$100 |
| Program Committee Travel | | | \$6,330 |
| Chairman's Discretionary Budget | | | \$2,110 |
| Gratuities | | | \$530 |
| TOTAL ADMINISTRATION | | | \$36,890 |

8/4/1993

IEEE BUDGET
CONFERENCE ON COMPUTATIONAL INTELLIGENCE FOR FINANCIAL ENGINEERING
APRIL 9-12, 1995

| US DOLLARS | QUANTITY | VALUE EACH | BUDGET PRICE |
|--|----------|------------|------------------|
| 19. ALL OTHER CONFERENCE EXPENSES | | | |
| Tutorials/Honor./Expenses | | | \$7,175 |
| Tutorial Meeting Room Expenses | | | \$1,055 |
| Invited Speaker Expenses | | | \$2,745 |
| Audit | | | \$2,635 |
| Seattle Help Expenses | | | \$4,220 |
| Conference Meeting Room Expenses | | | \$3,165 |
| Organizational Committee Expenses | | | \$2,110 |
| TOTAL ALL OTHER CONFERENCE EXPENSES | | | \$23,105 |
| 20. TOTAL CONFERENCE EXPENSES | | | \$128,077 |
| 21. LOAN REPAYMENTS | | | |
| IEEE (80%) | | | \$48,000 |
| IAFE (20%) | | | \$12,000 |
| TOTAL LOAN REPAYMENTS | | | \$60,000 |
| 22. TOTAL OUTLAYS | | | \$188,077 |

| SURPLUS (LOSS) | | | |
|---------------------------|--|--|------------------|
| 23. TOTAL RECEIPTS | | | \$207,560 |
| 24. TOTAL OUTLAYS | | | \$188,077 |
| 25. SURPLUS | | | \$19,483 |
| Surplus % Above Expenses | | | 15% |

| POST CONFERENCE DISTRIBUTION | % SHARE | \$ DISTRIBUTED |
|------------------------------|---------|-----------------|
| A. IEEE | 80% | \$15,586 |
| B. IAFE | 20% | \$3,897 |
| | | \$19,483 |

AUG-20-83 FRI 13:30

ENGINEERING DEANS OFFICE

FAX NO. 5048628747

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IEEE

IEEE TECHNICAL ACTIVITIES

SUMMARY FINANCIAL REPORT FOR IEEE SPONSORED OR COSPONSORED CONFERENCES
See reverse side for instructions on how to complete this form

CONFERENCE

1. Full title of Conference FUZZ-IEEE Systems 1996

2. Dates of Conference Sept. 7-11, 1996

3. Location of Conference (full name and address) Hyatt Regency New Orleans, 500 Poydras Plaza
New Orleans, La. 70140

TYPE OF REPORT / CURRENCY USED

4. Indicate type of report by checking one box:

Budget Interim Report Final Report

5. All income and expense figures below must in U.S. Dollars. For Conferences held outside the U.S.A., indicate the local currency (e.g., Swiss Francs) and the conversion rate used (local currency units per 1 U.S. Dollar) and date:

Local currency: _____ Conversion rate: _____ Date of Conversion rate: _____

INCOME

| | Budget | Interim Report | Final Report |
|-----------------------------------|------------|----------------|--------------|
| 6. Registration Fees | \$ 237,600 | \$ _____ | \$ _____ |
| 7. Conference Publication Sales | 42,150 | _____ | _____ |
| 8. Exhibits | 48,300 | _____ | _____ |
| 9. Social Functions | - | _____ | _____ |
| 10. All Other Conference Receipts | 101,500 | _____ | _____ |
| 11. Total Conference Income | 429,550 | _____ | _____ |
| 12. Conference Loans | 45,000 | _____ | _____ |
| 13. Total Receipts | \$ 474,550 | \$ _____ | \$ _____ |

EXPENSE

| | Budget | Interim Report | Final Report |
|-----------------------------------|------------|----------------|--------------|
| 14. Promotion | \$ 58,000 | \$ _____ | \$ _____ |
| 15. Conference Publications | 48,000 | _____ | _____ |
| 16. Exhibits | 14,500 | _____ | _____ |
| 17. Social Functions | 96,500 | _____ | _____ |
| 18. Administration | 135,050 | _____ | _____ |
| 19. All Other Conference Expenses | 47,500 | _____ | _____ |
| 20. Total Conference Expense | 399,550 | _____ | _____ |
| 21. Loan Repayments | 45,000 | _____ | _____ |
| 22. Total Outlays | \$ 444,550 | \$ _____ | \$ _____ |

SURPLUS / (LOSS)

23. Total Receipts (13) \$ 474,550 24. Total Outlays (22) \$ 444,550
25. Surplus (Loss) - (Item 23 less Item 24) \$ 30,000

POST CONFERENCE DISTRIBUTION

Surplus (Loss) in Item 25 to be distributed as follows:
% Share \$ Distributed

| Cosponsor Entity | % Share | \$ Distributed |
|------------------|----------------|----------------|
| a. _____ | _____ | _____ |
| b. _____ | _____ | _____ |
| c. _____ | _____ | _____ |
| d. _____ | _____ | _____ |
| | Surplus (Loss) | \$ _____ |

CONFERENCE FINANCIAL INSTITUTION

Name of Bank _____
Address _____
Conference Account Title _____ Account No. _____

Have you requested IEEE Conference Insurance? Yes No

SUBMITTED BY:

Name Dr. Frederick E. Petry Tel. No. (504)-865-5840
Address Computer Science Dept. Tulane Univ. New Orleans, LA 70458
Conference Position General Chairperson

CONFERENCE SIGNATURE _____ SOCIETY SIGNATURE (135) Date _____

AUG-20-93 FRI 13:31

ENGINEERING DEANS OFFICE

FAX NO. 5048628747

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IEEE TECHNICAL ACTIVITIES
IEEE CONFERENCE DETAILED FINANCIAL REPORT - PART I: INCOME

This form should be completed only for IEEE sponsored or cosponsored Conferences. The care taken in filling out this will lead to a more accurate projection of your Conference's net surplus or loss.

NOTE: All Income Items may be expressed in either U.S. Dollars or in local currency.

Full title of Conference 1996 FUZZ IEEE Systems Date of Conference Sept. 7-11, 1996

INCOME

| REGISTRATION FEES | Quantity | Fee | Budget | Interim Report | Final Rep |
|---|------------|---------------------|-------------------|----------------|-----------|
| In Advance-Members | 210 | x 395 | = \$ 82,950 | | |
| In Advance-Nonmembers | 60 | x 445 | = 26,700 | | |
| In Advance-Reduced Rate | 50 | x 75 | = 3,750 | | |
| At Conference-Members | 210 | x 445 | = 93,450 | | |
| At Conference-Nonmembers | 50 | x 495 | = 24,750 | | |
| At Conference-Reduced Rate | 50 | x 120 | = 6,000 | | |
| Total Registrants | 630 | Total | \$ 237,600 | | |
| CONFERENCE PUBLICATION SALES | | | | | |
| To Members | 130 | x 75 | = \$ 9,750 | | |
| To Nonmembers | 110 | x 90 | = 9,900 | | |
| To IEEE Hq. | 450 | x 50 | = 22,500 | | |
| Total Copies | 675 | Total | \$ 42,150 | | |
| EXHIBITS | | | | | |
| (Publisher) Tables | | x | = \$ | | |
| (others) Booths | 7 | x 900 | = 6,300 | | |
| Booths | 28 | x 1,500 | = 42,000 | | |
| | | x | = | | |
| Total | | | \$ 48,300 | | |
| SOCIAL FUNCTIONS | | | | | |
| (Itemize by event on separate sheets.) | | Total | \$ 0 | | |
| ALL OTHER (List here or attach details.) | | | | | |
| <u>Attached</u> | | | \$ 101,500 | | |
| <u>Seed Money Advance</u> | | | 45,000 | | |
| | | Total | \$ | | |
| | | TOTAL INCOME | \$ 474,550 | | |

NOTE: BE SURE TO COMPLETE AND RETURN ALL FINANCIAL FORMS TOGETHER ("SUMMARY REPORT", "PART I: INCOME", "PART II: EXPENSE" AND "SOCIAL FUNCTIONS").

RETURN TO: IEEE CONFERENCE SERVICES 136
 445 HOES LANE, P.O. BOX 1331, PISCATAWAY, N.J. 08855-1331, U.S.A.
 KEEP A COPY FOR YOUR RECORDS

AUG-20-93 FRI 13:32

ENGINEERING DEANS OFFICE

FAX NO. 5048628747

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OTHER INCOME: FUZZ-IEEE 1996

EXHIBITS ONLY PRACTICE.

| | Qty. | Fee | Budget |
|------------------------------|-------------|------------|----------------|
| In Advance | 100 | \$15 | \$1,500 |
| Registered at the Conference | 100 | \$20 | \$2,000 |
| TOTAL EXHIBITS ONLY | | | \$3,500 |

TUTORIAL

| | | | |
|------------------------|-----|-------|-----------------|
| Tutorial, one only | 60 | \$300 | \$18,000 |
| Tutorial | 200 | \$400 | \$80,000 |
| TOTAL TUTORIALS | | | \$98,000 |

**EXPENSES: FUZZ-IEEE 1996
PROMOTION**

| | |
|---------------------------|---------------|
| Brochure printing | 11,000 |
| Program/prod and printing | 3,000 |
| Mailing lists and labels | 2,000 |
| Postage | 15,000 |
| Mailing house | 4,000 |
| Advertising | 18,000 |
| Conference Posters | 5,000 |
| TOTAL PROMOTION | 58,000 |

CONF. PUBLICATION

| | | | |
|---------------------------|------|------|---------------|
| Proceedings Printing (2) | 1400 | \$25 | 35,000 |
| Comm. w/auth./sess.chairs | | | 3,000 |
| Shipping(Conference/IEEE) | | | 1,500 |
| Other/Souvenir Items | | | 8,500 |
| TOTAL PUBLICATIONS | | | 48,000 |

EXHIBITS

| | |
|-----------------------|---------------|
| Promotion | 3,000 |
| Signage | 2,500 |
| Exhibits Mktg. | 4,000 |
| Furniture | 3,500 |
| Comm. w. Exhibitors | 1,500 |
| TOTAL EXHIBITS | 14,500 |

SOCIAL FUNCTIONS

| | |
|--------------------------|--------|
| Org. Committee Breakfast | 2,500 |
| Coffee Breaks/Tutorials | 4,000 |
| Coffee Breaks/Committee | 2,000 |
| Coffee Breaks/Conference | 30,000 |
| Opening Reception | 13,000 |
| Reception/Banquet | 45,000 |

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AUG-20-93 FRI 13:33

ENGINEERING DEANS OFFICE

FAX NO. 5048628747

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ADMINISTRATION

| | |
|-------------------------------|----------------|
| Insurance and bonding | 150 |
| Securities and guard service | 5,000 |
| Audio-video rental and op. | 9,000 |
| Adm. Clerical Help | 10,400 |
| Adm. Supplies/Rentals | 6,000 |
| Mgt. Fee (Sliding Scale) | 26,000 |
| Off. Equip. Rental (in site) | 2,000 |
| Pr.forms tickets, stat., etc. | 3,000 |
| Signs, badges, etc. | 3,000 |
| Telephone, FAX, Copying | 3,500 |
| Regist. help/Bookkeeping | 11,000 |
| Contingency Fee Provision | 11,000 |
| Prog. Committee Travel | 20,000 |
| Chairman's Discr. Budget | 25,000 |
| TOTAL ADMINISTRATION | 135,050 |

ALL OTHER

| | |
|------------------------------|----------------|
| Tutorials/Signage | 2,000 |
| Tutorials/Notebooks (2) | 8,000 |
| Tutorials/Audiovisual | 3,000 |
| Tutorials/Honor/Expenses | 14,000 |
| Invited Speakers Expenses | 12,000 |
| Audit | 4,500 |
| Voluntary Help Expenses | 4,000 |
| TOTAL OTHER EXPENSES | 47,500 |
| <u>TOTAL EXPENSES</u> | 399,500 |
| <u>LOAN REPAYMENT</u> | 45,000 |
| <u>TOTAL OUTLAYS</u> | 444,550 |
| <u>SURPLUS (LOSS)</u> | 30,000 |

139

R. Marks reported on the Trans. on Neural Networks.
The papers backlog was identified as an issue (see also pp 109 and 110 of AdCom meeting book).

The following motions were made by Marks:

1. Motion per page 120 of AdCom meeting book, seconded by Wes Snyder. Passed by Committee to recommend to AdCom.
2. Motion per supplement page 8 to AdCom meeting book, seconded by Eberhart. Passed by Committee to recommend to AdCom.
3. Motion to use surplus for page increase (an additional 20% pages) and increase the subscription by 20% to members and non-members (this would increase the subscription to members from \$12 to \$14). Passed by Committee to recommend to AdCom.

No reports on Trans. on Fuzzy Systems

Kartalopoulos reported on book publications activities:

Haykin: in final stages - in negotiation w/McMillan
promotion by NNC needs to be defined; it will determine
royalties

Gupta/Knoff: "Neurovision Systems" 100 pg intro, total ~900 pages.
Gupta proposes to split into 2 books: Principles and
Advanced. Some concern by IEEE Press.

Gupta/Rao: "Neuro-Control" in progress Fogel: "Evolutionary
Programming" in progress (2 chapters completed the remainder
to be submitted soon).

Fogel & Simpson: "The Data Handbook" - sample chapters in progress,
- proposal under evaluation Caudell: progress slow NNC's
royalties to date: appr. \$2K

JACI: Don Brown's proposals on JACI was discussed on JACI (Journal on Applications on Computational Intelligence). However, no motions or decisions were made due to the absence of Subcommittee chairman Don Brown. However, it was decided that Don Brown will have a complete proposal by next meeting.

Rick Alan discussed activities and thoughts for a RIG Video Project and requested the support of the Committee and NNC. Support was granted.

The meeting was adjourned with next meeting in September 18 (8:30-9:30) 1993 in Seattle prior to VRAIS'93 Conference.

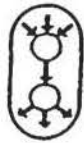
Respectfully submitted

Stamatios V. Kartalopoulos, PhD
NNC Publications Committee Chair



IEEE

TRANSACTIONS ON FUZZY SYSTEMS
NEURAL NETWORKS COUNCIL



Jim Bezdek, Editor
Dept. of Computer Science
University of West Florida
Pensacola, FL 32514 USA

Tel: (904) 474-2784
Fax: (904) 474-3023
jbezdek@ai.uwf.edu
jbezdek@uwf.bitnet

To : NNC ADCOM

Fm : Jim Bezdek *Jim Bezdek 8/20/93*

Re : 1994 Budget for the *IEEE Transactions on Fuzzy Systems*

This memo includes some statistical data and a budget request for the *IEEE Transactions on Fuzzy Systems* for calendar year 1994. The expense numbers for 1994 were supplied by Lewis Moore, Business Manager for IEEE Publications, (908) 562-3959 or (212) 705-7366 on 8/10/93. Assumptions for 1994 : (10% ↑ postage, 8% ↑ paper, 3% ↑ printing).

SUMMARY DATA FOR 1994

| | |
|-----------------------------|--------|
| Total number of pages/year | 320 |
| Total number of issues/year | 4 |
| Pages incl. covers-1 issue | 80 |
| Print Order per issue | 9000 ← |

COSTS PER ISSUE

| | | | |
|--------------------------------------|-------------------|------------|----------|
| Editorial: | 320 pp @ \$ 37.00 | = 11,840/4 | 2,960.00 |
| Comp & Layout: | 320 pp @ \$ 57.00 | = 18,240/4 | 4,560.00 |
| Printing: | | | 3,100.00 |
| Paper (text & cover): | | | 2,200.00 |
| Mailing & labels: | | | 2,200.00 |
| Postage (75% Domestic, 25% Foreign): | | | 3,300.00 |
| Publication Administration | | | 1,500.00 |

TOTAL PER ISSUE, 1994 dollars **\$19,820.00**

These data are used to determine the estimated costs of production and distribution for 1994 shown in Table 1 below. All in all, I think our first year of operation is going pretty smoothly. Growth has been a little slower than anticipated, due mostly (I think) to the large number of other entrants that are competing for papers and glory. At this point, it is my best guess and belief that TFS is the flagship journal of our field.

Table 1. Budget Summary

| ITEM | '93 Prop. | '93 Act. | '94 Prop. | '94 Act. | '95 Prop. | '95 Act. | '96 Prop. | '96 Act. |
|---------------------|-----------|------------|-----------|----------|-----------|----------|-----------|----------|
| # pages | 320 | TBD | 320 | 320 | | | | |
| Full package | 1000 | TBD | 1000 | | | | | |
| Members | 2000 | TBD | 2500 | | | | | |
| Printrun | 3000 | 9000 | 9000 | 9000 | | | | |
| COSTS - K\$ | | | | | | | | |
| Prod/Dist | 56 | TBD | 80 | | | | | |
| Indexing | 2 | TBD | 6 | | | | | |
| Ed. Exp. | 8 | TBD | 10 | | | | | |
| Total Costs | 66 | TBD | 96 | | | | | |
| INCOME - K\$ | | | | | | | | |
| Members @10 | 20 | TBD | 25 | | | | | |
| NonMemb.@100 | 10 | TBD | 10 | | | | | |
| Full Package | 45 | TBD | 52 | | | | | |
| Total Income | 75 | TBD | 87 | | | | | |
| NET - K\$ | 9 | TBD | 9 | | | | | |

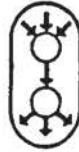
The budget requested is shown as column 3 of Table 1, labeled '94 Prop. Attention is directed to the \$10K line item titled Ed. Exp. (direct editorial expenses). This 10K is in agreement with the original proposal budget. I am requesting that this item be divided as follows: \$4K as editorial compensation to be paid at the end of the calendar year as a lump sum, and \$6K for consumables (Telephone, Xerox, Fax, Postage, Paper, etc.), billed at cost at the end of the calendar year.

Table 2. Summary Statistics for TFS Papers, 7/1/92 to date

| ITEM | '92 (from 7/1) | '93 (to 8/15/93) | '94 | '95 |
|-------------------|----------------|------------------|-----|-----|
| Submit/Resubmit | 64 | 65 | | |
| Accepted - Full | 21 | 2 | | |
| Accepted - Brief | 4 | | | |
| Accepted - Letter | 1 | | | |
| Revision required | 11 | 3 | | |
| Rejected | 15 | 6 | | |
| Still Pending | 11 | 53 | | |
| Transfers | 1 | 1 | | |



TRANSACTIONS ON NEURAL NETWORKS
NEURAL NETWORKS COUNCIL



Robert J. Marks II
Editor-in-Chief

PLEASE REPLY TO:
University of Washington
Department of Electrical Engineering
c/o 1131 199th Street S.W., Suite N
Lynnwood, WA 98036-7138 USA

July 23, 1993

TO: Stamatis Kartalopolous, Chair
NNC Publications Committee

FROM: R.J. Marks II, Editor
IEEE Transactions on Neural Networks

Subject: Mandatory Page Charges

Background:

The *IEEE Transactions on Neural Networks* currently has a \$110 per page voluntary page charge. Page limitations are 32 double spaced pages for full papers, 16 pages for brief papers and 8 pages for letters. Deviations in font size, margins and spacing allows significant variation.

Mandatory page charges vary significantly around IEEE. The motion below closely parallels the *IEEE Transactions on Signal Processing* who has the same voluntary page charges as the *IEEE Transactions on Neural Networks* and charges a mandatory \$110 for papers in excess of eight journal pages. Their page thresholds are the same as proposed in the motion.

I ask that the Publications Committee consider placing the following motion before AdCom.

Motion:

AdCom approves mandatory page charges for the *IEEE Transactions on Neural Networks* of \$125 per journal page in excess of ten pages for full papers and in excess of five journal pages for brief papers.

Sincerely,

Robert J. Marks, Editor-in-Chief
IEEE Transactions on Neural Networks

cc: Russ Eberhart, NNC President
NNC AdCom

Proposal for Publication
of the
IEEE Journal on
Applied Computational Intelligence
by the
IEEE Neural Networks Council
which is composed of representatives of the IEEE
Societies listed in Appendix A
Prepared by the Ad Hoc Committee for the Journal

Donald E. Brown, Chair
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Russell C. Eberhart
Toshio Fukuda
Stamatios V. Kartalopoulos
Robert J. Marks II
Edgar Sanchez-Simencio
Patrick K. Simpson
Wesley E. Snyder
Benjamin W. Wah

August 10, 1993

Summary

This document presents a proposal for the IEEE Journal on Applied Computational Intelligence (JACI) sponsored by the IEEE Neural Networks Council. The need for this journal is evident in the growing demand within and without IEEE for publications that focus on applications of computational intelligence. The proposed journal will be published quarterly starting in January of 1995. IEEE members who belong to one of the NNC member societies (see Appendix A) will pay \$15 for the first year. The proposed budget shows a modest surplus in each of the first four years of operation. The readership of this new journal is expected to consist of development oriented engineers from industry, government, and academia. Currently, these readers cannot find articles in applied computational intelligence in one journal. JACI will provide this focus and effectively complement existing IEEE journals particularly those of the NNC and those within member societies.

1. The Need for the IEEE Journal on Applied Computational Intelligence

Computational intelligence brings together work from neural networks, uncertain and approximate reasoning, fuzzy systems, and evolutionary programming. Over the last decade research from these areas has moved with increasing speed into applications in industry and government. However, because of the interdisciplinary nature of computational intelligence, most of this applications work has remained confined

within the lore of specific disciplines. Further, currently available interdisciplinary journals in computational intelligence tend to publish more theoretical results and also scatter the applied work across a variety of journals. As a result, a tremendous demand exists for a journal that focuses directly on applied computational intelligence.

The IEEE has noted a clear increase in the demand for applications articles, in general. The IEEE Technical Activities Board (TAB) conducted a study three years ago concerning IEEE Publications, and the results showed that the IEEE membership wanted more applications articles in the IEEE journals. Also, the panel of IEEE Editors reported at their August 24, 1992 meeting that "IEEE Members have asked for more applications-oriented papers."

The demand for applications papers has also been evident in the IEEE Transactions. Over the last year an increased number of applications articles has appeared in many Transactions. According to the 1992 Survey of Transactions Editors, applications oriented manuscripts constitute 15-30% of the submissions in some journals and reach as high as 90% in a few. Significantly the ones with high levels of applications articles are Industrial Applications and Industrial Electronics. We note that Industrial Applications had a special issue in April 1993 on "Applications of Intelligent Systems to Industrial Electronics."

Within computational intelligence this demand for applied work is particularly strong. For instance, specific applications oriented conferences, such as, "Artificial Neural Networks in Industry and Engineering" (ANNIE) have become annual events. ANNIE receives roughly 600 submissions per year and competes with at least three annual neural network conferences (including the IEEE CNN and IJCNN). The Society for Photo-optical Instrument Engineers (SPIE) has also conducted several conferences per year on applications in neural networks and artificial intelligence. Eric Herz, IEEE's executive director, cited SPIE as an organization that was successfully targeting the demand for applications.

Within the genetic algorithms/evolutionary programming community there is also strong interest in applications. At the 1993 Genetic Algorithms Conference the program chair reported that over 40% of the papers presented were in applications. This occurred without specifically requesting applications submissions in the call for papers.

The fuzzy systems area also is a hotbed of activity in applications. For example, Newsweek (May 26, 1990) reported that the Japanese hold over 2000 patents on fuzzy devices. There are typically more than five major fuzzy systems conferences per year and most of these have substantial numbers of applications papers. The Industrial Conference on Fuzzy Systems represents one that is directly targeted at applications.

In addition to these conferences within the core activities of computational intelligence, there are also numerous papers presented at discipline specific conferences that address applications in computational intelligence. Given all these meetings that contain papers in applied computational intelligence there is unquestionably a need for a more dedicated and focused publication in this area. The IEEE

can provide for this need and meet member demands for more applications oriented papers through the introduction of JACI.

2. Scope

The IEEE Journal on Applied Computational Intelligence (JACI) will focus on real applications of computer-based models of intelligence. Examples of these models of intelligence include:

- neural networks
- genetic algorithms
- evolutionary programming
- fuzzy sets and systems
- self-organizing systems,
- uncertainty management systems
- adaptive networks

Applications reported in this journal will use the technologies of computational intelligence, such as those above, to resolve specific real-world problems. Typically, but not necessarily these applications will involve a decision of economic or social value. More generally, the resolution of the problem will have clear and measurable benefits to an organizational entity. Example applications include but are not limited to the following:

- design, engineering, manufacturing, and production
- real-time operations and control
- monitoring, diagnostics, and testing
- transportation, logistics, and material flow

The primary objective of JACI is to present articles in a specific application area for the benefit of an audience composed of professional engineers and engineering managers who use the methodologies of computational intelligence for real-world problem solving. Feature articles in JACI will emphasize creative solutions to difficult problems. Articles can describe technically important work from industry, government, academia, and private foundations. Tutorials will show the relationship of important theoretical developments in computational intelligence to specific applications. Surveys will show common threads running through several application domains.

JACI will also publish case studies that take a well defined problem and show the precise steps in the solution or implementation. As opposed to feature articles, case studies will provide less emphasis on creative problem solving but more emphasis on detailed problem solving steps. Case studies can also include lessons learned from successful and unsuccessful applications.

A correspondence section will provide a forum for publishing short applications articles and extensions of other work. This would allow authors to quickly inform readers of new applied work, since the review times for correspondence articles will be shorter than for feature articles.

Finally, JACI will feature new patent information as a service to its readers. An associate editor for patents will review recent activity in

patent applications that use computational intelligence.

We envision JACI will contain the following departments (although not every one will appear in each issue):

From the Editor
Product Reviews (software and hardware)
Patent Reviews
Media Reviews (books, tapes, CD's, etc.)
Calls for Papers
Announcements (conferences and workshops)
Standardization Issues in Applied Computational Intelligence
National and International Programs and Policies

We also envision occasionally producing special issues of JACI devoted to one important field of applications (e.g. manufacturing). This issues will have guest editors, although they will conform to the editorial and review policies of JACI.

3. Readership

Demand for applications articles in applied computation intelligence is widespread. We expect to reach a large audience of development oriented professional engineers. These readers will be found in government, industry, and academia. We also expect a number of theoretically oriented readers who will want to maintain currency with the direction of applications and the identified areas requiring further investigations. Finally, we believe the format of JACI will attract non-technical readers (e.g. marketing and finance) who are interested in new applications and forecasting future trends.

4. Related Publications

Applied computational intelligence has emerged only recently, but the number of successful applications are increasing quite dramatically. Several existing journals have attempted to modify their scopes in order to accommodate this trend. Additionally, some new journals have emerged. However, none of these cover the breadth of applications in the total field of computational intelligence. Some significant examples of related journals are

Applied Mathematical Modeling
Computers in Industry
Computers and Mathematics
Journal of Evolutionary Programming
Journal of Intelligent and Fuzzy Systems: Applications in Engineering and Technology.

There are also related journals within the IEEE. At its inception, the NNC chose to remain interdisciplinary with strong links to its member societies. Hence, in reviewing the publications within IEEE we believe that we can effectively complement the existing journals by providing a more focused outlet for applications work within computational intelligence that runs across the member societies. The need for JACI is shown clearly in the number of IEEE journals with special issues of some relevance to applied computational intelligence published over the

last year. The list below shows the related IEEE journals and those that have recently run or will run related special issues:

IEEE Computer Graphics and Applications (unscheduled special issue)
IEEE Expert
IEEE Trans. Circuits and Systems (special issue 3/93)
IEEE Trans. on Pattern Analysis and Machine Intelligence
IEEE Trans. on Industrial Electronics (special issues 12/93; 4/93)

5. Sponsorship

JACI will be sponsored by the IEEE Neural Networks Council, which is composed of the member societies listed in Appendix A. The NNC has a large surplus in reserve in the unlikely event that the proposed journal needs financial support during its first years of operation.

6. Editorial Management

Management of the journal will be by the NNC. The editor will be selected by the NNC and may be removed by a 2/3 majority vote of the council. The editor will be appointed to a four year, renewable term of office. The Editor will nominate the Associate Editors subject to the approval of the NNC. A council member can be an Associate Editor, but cannot in any way participate in the discussions or vote regarding his/her nomination. All actions of the NNC concerning JACI, except removal of the editor will be by majority vote of council.

7. Editorial Policy

Editorial selection and review shall be consistent with the policies and practices of the IEEE. There will be no commercial advertising in JACI. All papers will be selected for publication based on anonymous reviews obtained by the Editorial Staff. Papers for the initial issue will be obtained from individual solicitations, calls-for-papers in the newsletter, and from the 1993 IEEE Conference on Neural Networks.

8. Finances

The budget for each calendar year for JACI will be the responsibility of the Editor. The budget will include all customary IEEE expense and income items. Appendix B shows the financial projection for the years 1995-1998.

Appendix A: Membership Statistics

Membership statistics of the constituent societies of the IEEE NNC as of 12/92.

| | |
|------|-------|
| CAS | 18335 |
| LEO | 11078 |
| IA | 11340 |
| COMM | 35428 |
| COMP | 71021 |
| PE | 25595 |
| OE | 2404 |
| SP | 19205 |

CS 12262
 EMB 9086
 IE 6402
 IT 7051
 SMC 5520

Appendix B: Financial Input Data

| | 95 | 96 | 97 | 98 | |
|--------------------|------|-------|------|------|------|
| POLICIES | | | | | |
| Frequency | 4 | 4 | 4 | 4 | |
| Member rate | 15 | 15 | 18 | 18 | |
| Non-Mem rate | 150 | 150 | 150 | 150 | |
| Pages & Covers | 352 | 352 | 382 | 382 | |
| ASSUMPTIONS | | | | | |
| Mem subs | 2000 | 2500 | 3000 | 3500 | |
| Non-Mem subs | 100 | 100 | 100 | 100 | |
| Full Pckg subs | 967 | 967 | 967 | 967 | |
| Total Print Run | 3067 | 3567 | 4067 | 4567 | |
| Cost Rates | | | | | |
| Fix cst/Ed. pg | | 133 | 136 | 139 | 142 |
| Var cst/K/Tot. pg | | 10 | 10.5 | 11 | 11.5 |
| INCOME (K) | | | | | |
| Mem subs | 30 | 37.5 | 54 | 63 | |
| Ind non-mem | 15 | 15 | 15 | 15 | |
| Full non-mem | 50 | 50 | 50 | 50 | |
| TOT IN (K) | 95 | 102.5 | 119 | 128 | |
| EXPENSES | | | | | |
| Prod & Dist | 70 | 79 | 90 | 102 | |
| Indexing | 2 | 3 | 3 | 3 | |
| Ed. Expenses | 10 | 10 | 10 | 12 | |
| TOT EX (K) | 82 | 92 | 103 | 117 | |
| NET | 13 | 10.5 | 16 | 11 | |



NEURAL NETWORKS COUNCIL



Robert J. Marks II
Past President

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August 20, 1993

To: NNC AdCom
From: NNC VR Technical Committee

Background: The NNC VR Technical Committee has unanimously concurred that the NNC VR Technical Committee be placed directly under TAB. Caudell & Marks were tasked to draft a charter and constitution for the *TAB Virtual Reality Committee (VRC)*. The charter and constitution of the the former *IEEE Neural Networks Committee* was used as a template.

Motion: The NNC approves the attached constitution and bylaws for the *TAB Virtual Reality Committee* and directs that the NNC President bring this motion to TAB at the November 1993 TAB meeting.

Sincerely,

A handwritten signature in black ink, appearing to read 'Robert J. Marks II', with a stylized flourish at the end.

Robert J. Marks II

Charter of the IEEE Virtual Reality Committee (VRC)

Agreement Among the Participating Societies/Councils Regarding IEEE Activities in Virtual Reality

SCOPE

The IEEE Virtual Reality Committee is a committee of the IEEE Technical Activities Board consisting of IEEE Societies and technical Councils (hereinafter S/C's) whose purpose is to coordinate technical activities in the interdisciplinary area of Virtual Reality and provide the focus for cooperative efforts among TAB entities. The following S/C's shall jointly sponsor the IEEE Virtual Reality Committee, (hereafter VRC):

Neural Networks Council

The IEEE Virtual Reality Committee shall act to foster activities in the area of Virtual Reality by forming technical subcommittees, task forces, interest groups, and sponsoring technical workshops, symposia and international conferences. The VRC shall represent the IEEE Technical Activities Board in matters relating to Virtual Reality.

THE COMMITTEE

The membership of the VRC shall consist of two delegates from each of the sponsoring S/C's. These delegates must be appointed by their respective S/C's for two-year staggered terms, and may be reappointed. Each delegate shall have one equal vote on matters before the VRC. These appointees will serve as the Administrative Committee (AdCom) of the VRC.

The committee shall elect biennially a Chairman from among its current membership. The Chairman shall serve as focus for all communications and shall direct, on behalf of the VRC, the operational matters of the committee. For the duration of the office of Chairman, that individual will be considered to be a representative of his/her respective S/C, therefore able to represent more freely the overall objectives of the VRC. The Chairman's S/C will be represented by the other delegate only. On a biennial basis, the VRC shall also elect a Secretary and a Treasurer. In addition to the usual duties regarding minutes, reports, records, etc., the Secretary shall serve as Chairman pro tem in the absence of the Chairman. When the election to office of a Committee member requires an extension of the member's term of appointment by the sponsoring S/C, it is expected that such an extension will take place. This extension will be for either one or two years as necessary, to maintain the staggered appointment with the other delegate.

IMPLEMENTATION

This agreement shall be acted upon by the President of each sponsoring S/C on behalf of the respective S/C Administrative Committee or Board of Governors. Should any choose not to participate in this agreement, it is understood that their allocated positions on the VRC AdCom and their participation in sponsoring or funding of its activities shall be voided. The letter will be a binding agreement upon the parties when approved by their respective administrative committees and approved by the appropriate IEEE board(s).

The original of this letter and of signed letters of transmittal indicating sponsorship agreement from the respective IEEE S/C's will become a part of TAB records.

Once the VRC has been established, other IEEE S/C's can petition to become members of the Committee. A two thirds majority vote is required by the VRC AdCom for admission of new members.

A S/C can indicate its intent to withdraw from the VRC at any time. However, the withdrawing S/C shall continue to be financially responsible for its share of future VRC activities which have been approved by the VRC prior to the date of withdrawal. If a S/C withdraws from the VRC, its share in future VRC activities is divided equally among the remaining members.

FINANCIAL MATTERS

All member S/C's share equally in the financial responsibilities of the VRC. All VRC budgets shall be approved by the VRC AdCom.

The VRC shall be authorized to establish a reserve fund from which it can maintain its own operations. The fund shall be used to make cash advances to conferences sponsored by the VRC and to support the operating expenses of the Committee. The level of this reserve shall be 50% of the approved operating budget (including conference commitments) for the last year's operations. All monies above this level will be distributed to the sponsoring S/C's on an equal basis at the close of the IEEE fiscal year.

AMENDMENTS

Changes in the procedures specified in this letter will be enacted by amendments to be approved by a two thirds majority of the VRC AdCom and the sponsoring S/C's.

Date _____ Agreed by

(Name)

(Office)

(S/C)

CONSTITUTION OF THE IEEE VIRTUAL REALITY COMMITTEE

ARTICLE I - Name and Objectives

Section 1. The name of this organization shall be IEEE Virtual Reality Committee (hereinafter VRC) and it shall be governed in accordance with the Constitution and Bylaws of the Institute of Electrical and Electronics Engineers and the Charter of the VRC.

Section 2. The objectives of the VRC shall be scientific, educational and professional in character.

Section 3. The VRC shall aid in promoting close cooperation and exchange of technical information among its members and others interested in Virtual Reality and to this end shall hold meetings for the presentation of papers and their discussion, provide for technical publications, and through its committees shall study and provide for the needs of its members.

ARTICLE II - Membership

Section 1. The members of the VRC shall consist of individual voting members and sponsoring IEEE Society and technical Council (hereinafter S/C) members.

Section 2. The S/C members shall be IEEE Societies or technical Councils or other appropriate IEEE entities. The S/C members shall consist of those IEEE Societies or technical Councils which were members as of January 1, 1994 (which will be called S/C founding members) plus those S/C's which have applied for membership subsequently and been approved by a two-thirds vote of the VRC AdCom. A S/C may withdraw from the VRC by means of a written request to the Chair of the VRC. S/C membership is by calendar year, and the request for withdrawal must reach the Chair by June 1 in order for the S/C to withdraw on December 31.

Section 3. The individual voting members of the VRC shall be people appointed by the S/C members, with each S/C member having the right to appoint two individual voting members. An individual voting member shall remain on the VRC until a replacement is appointed by the responsible S/C.

ARTICLE III - Management and Officers

Section 1. The officers of the VRC shall be Chair, Secretary and Treasurer. The VRC shall biennially elect officers to serve for two year terms of office beginning January 1 of the following year. The Officers shall be individual voting members of the VRC at the time of their election (and during their two year term of office). No person can hold a particular office for more than two consecutive years.

Section 2. The Chair under the direction of the VRC shall have general supervision of the affairs of the VRC. The Chair shall preside at the meetings of the VRC and have other powers and duties as necessary to perform the work of the VRC, including appointing appropriate sub-committees.

Section 3. **The Treasurer shall have overall responsibility for the finances of the VRC.**

Section 4. **The Secretary shall function as the secretary and handle administrative aspects of the VRC. The Secretary shall serve as Chairman pro tem in the absence of the Chairman.**

Section 5. **If for some reason an elected officer of the VRC is unable to complete the two year term, then the Chair is authorized to appoint a replacement for the remainder of the officer's term. If the Chair is unable to complete the two year term, then the Secretary will automatically become the Chair and can appoint a replacement secretary for the remainder of the two year term.**

ARTICLE IV - Amendments

Section 1. **Amendments to this Constitution may be implemented by a two-thirds vote of the total membership of the VRC AdCom. The proposed amendments shall be submitted in writing to the individual members of the VRC for their vote.**

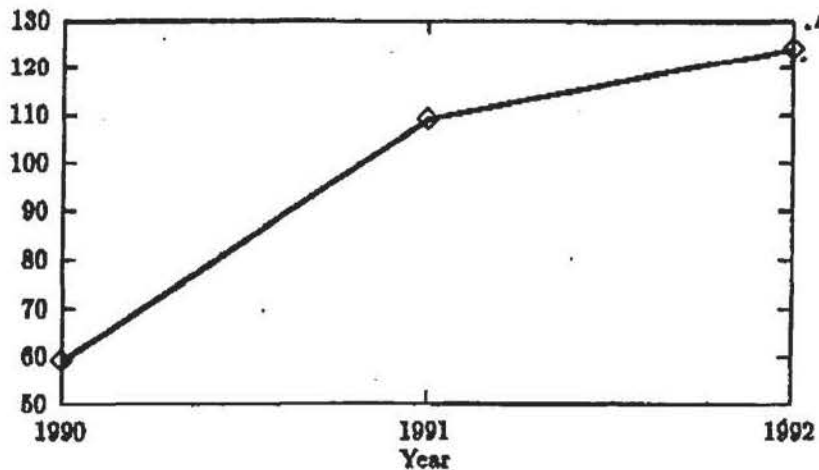


Figure 1: Number of Papers in the IEEE Transactions on Neural Networks

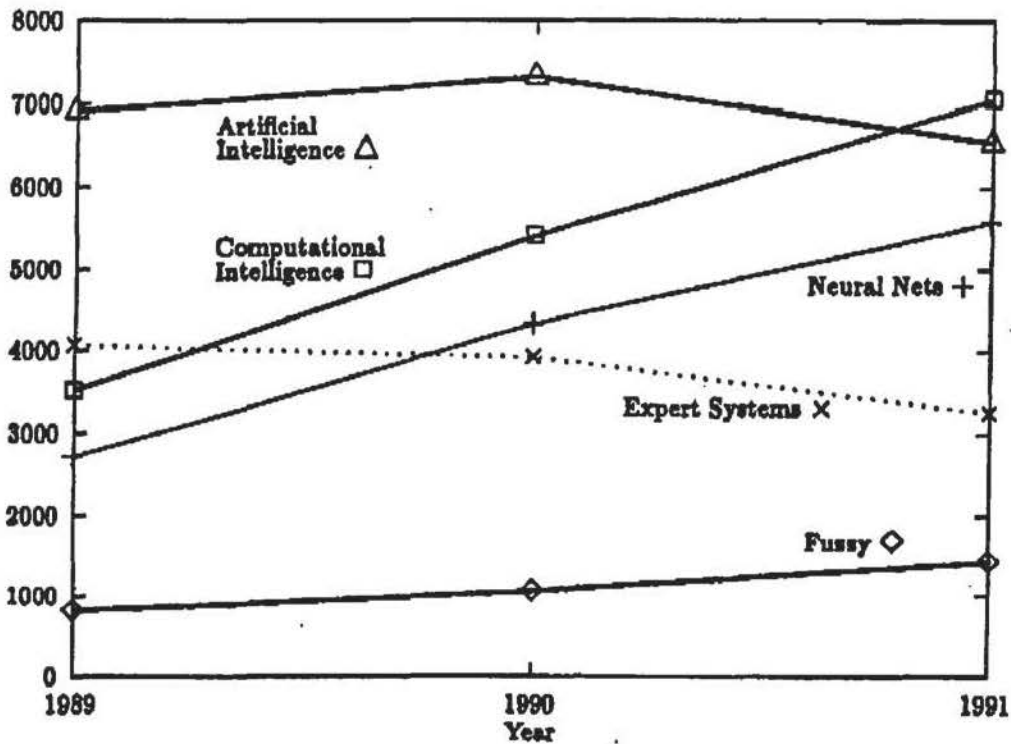


Figure 2: Number of Papers in the INSPEC Database

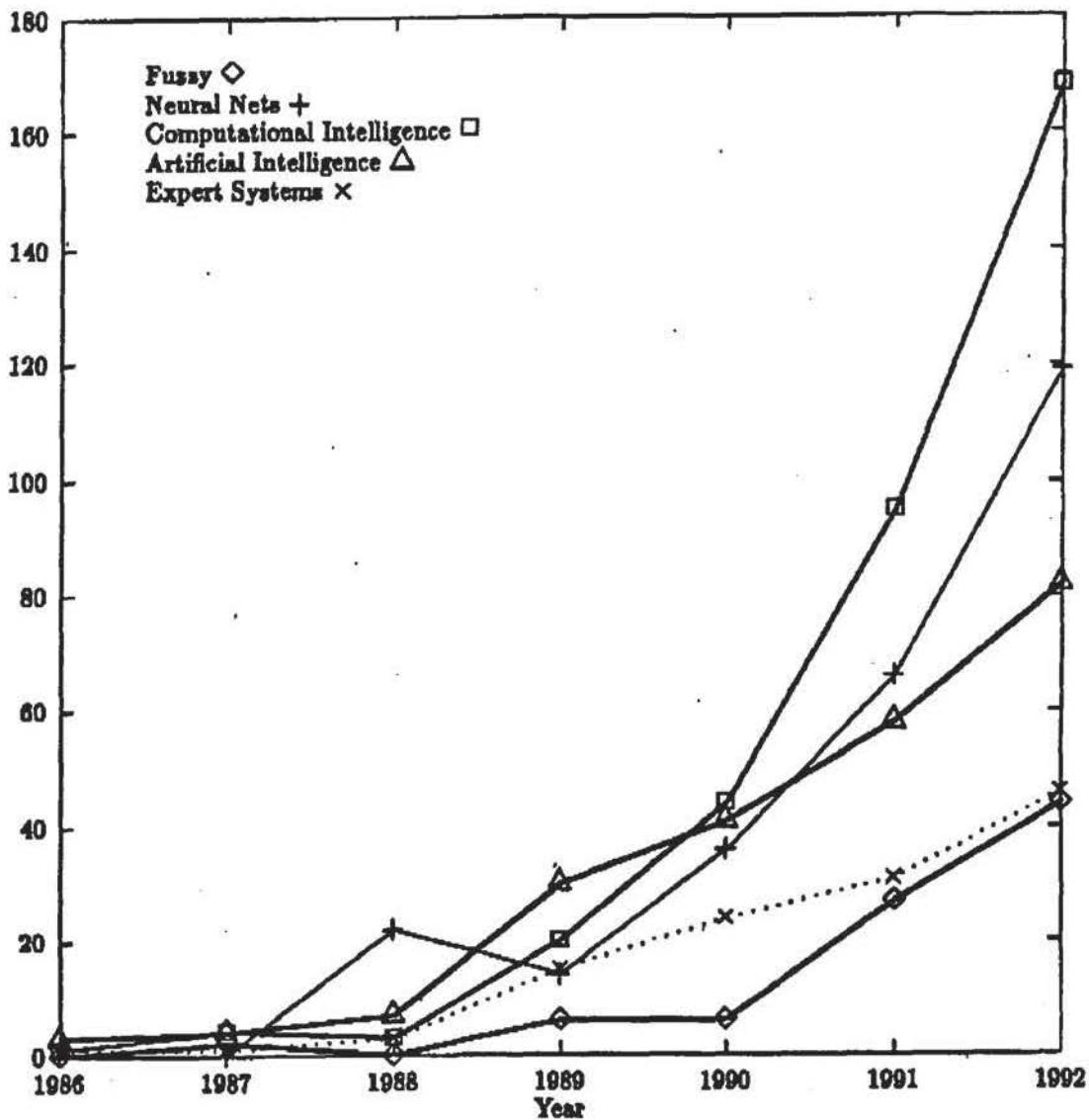
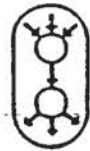


Figure 3: Number of US Patents from the CASSIS Database



NEURAL NETWORKS COUNCIL



Robert J. Marks II
Past President

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October 18, 1993

Dr. Lloyd A. 'Pete' Morley, Chair
TAB Periodicals Committee
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FAX 205 348 9455

Dear Dr. Morley,

I am responding to the invitation in your October 7, 1993 FAX to provide a response to the letter from Bart Kosko to Phyllis Hall dated August 24, 1992. The letter from Kosko was addended to your letter. This is the first time I have seen it. It is also the first time I have been asked for a response. I welcome the opportunity to do so.

Bart Kosko is a highly visible contributor to the fields of neural networks and fuzzy logic. He was a founder of the first *IEEE International Conference on Neural Networks (ICNN)* in 1987. He served as the Chair of the Organizing Committee. The success of this conference launched the *IEEE Neural Networks Committee* which, in 1990, matured into the *IEEE Neural Networks Council*. He has also made some important technical contributions. One is the bidirectional associative memory (BAM) neural network. Properties and variations of the BAM are still under investigation. Such a paper, for example, appears in the most recent issue of the *IEEE Transactions on Neural Networks*. He has also been quite visible in the area of fuzzy systems. James C. Bezdek, the founding Editor and current Editor of the *IEEE Transactions on Fuzzy Systems*, has placed him on the journal's Executive Advisory Board along with fuzzy logic giants as Lotfi Zadeh and George Klir.

I have never met Bart Kosko. My contact with him is limited to a brief (~15 minute) phone conversation in 1990 concerning the 1990 *International Joint Conference on Neural Networks* (an ICNN jointly sponsored with the *International Neural Networks Society*). We have also had exchanges of correspondence in my capacities as Chair/President of the *IEEE Neural Networks Committee/Council* (1989-92) and Editor of the *IEEE Transactions on Neural Networks* (1992-present).

I have read Kosko's letter to Phyllis Hall and am astonished. I am left looking at the floor and shaking my head in disbelief. The letter convincingly threads numerous innuendos and half truths into a conspiracy theory used to discredit Simpson and thereby Simpson's review. This conspiracy is used to justify a request that Simpson's review of Kosko's book should not be published. The argument made by Kosko is, frankly, without substance and is motivated by other than the reasons stated.

HISTORY

I first heard of Bart Kosko in 1989 when I was appointed to the *IEEE Neural Networks Committee* as a representative of the *IEEE Circuits and Systems Society*. I was later elected Secretary and then Chair. Kosko was the Organizing Committee Chair of the first 1987 ICNN. The financial abuses and conflicts of interest in this conference are legendary within IEEE. For his tutorial, Kosko's walked away with a five figure honorarium. TAB was outraged. One of the charters of the newly formed *IEEE Neural Networks Committee* was to make sure these abuses did not reoccur[‡]. The meetings activities of the *IEEE Neural Networks Committee* were closely monitored by the *TAB Technical Meetings Council*[#]. As Chair of *IEEE Neural Networks Committee*, I was committed to see these changes made and the abuses stopped*.

I vividly remember giving a presentation at TAB in 1989 to promote the *IEEE Neural Networks Committee* to a Council. Dolores Etter, then President of the *Signal Processing Society*, queried me at length on the details of the reformation. I assured her past financial abuses were no longer occurring and, quote, "we had our 'ducks in a row'". It turned out difficult to keep them that way.

The 1990 IJCNN

Kosko was appointed Program Co-Chair for the 1990 IJCNN. The 'J' is for 'joint'. The conference was now co-sponsored by the *International Neural Networks Society* and they chose Kosko. In an attempt to prevent further abuses, I wrote the letter in Attachment #1 to the conference General Co-Chairs. The reason for the letter, though, was Kosko. As you can see, he was sent a copy. One concern was the potential for Kosko's abuse of the conference for inappropriate self promotion. I directed '...all publicity matters - including news releases and press conferences - are your (Co-Chairs Karplus and Goodman's) responsibility.' I also addressed financial abuse. 'Any expenditures that are not included in the approved budget will not be honored. They will, rather, be considered the personal responsibility of the person or persons making the financial commitment'. I coordinated the writing of this letter with the conference Co-Chairs[°] who were also concerned about Kosko. The letter cautioned against abuse, outlined policy and the chain of authority. It also did not work. As you can see from Attachment #2, Kosko decided to invite James Burke, a public television personality, to give a plenary talk curiously entitled 'Connections: Mechanisms of Change - Do Lemons Whistle?' Burke's charge was \$7500 plus lodging plus first class air fare from England. In the letter from Burke's agent, I am told that the fee of \$7500 was reduced from the \$10,000 Burke normally charges and was done as a 'favor' to Kosko. As you can see in Attachment #2, Kosko's claim

[‡] Troy Nagel, currently IEEE President, was the first Chair of the *IEEE Neural Networks Committee* and is knowledgeable about these problems. He would make an excellent verification source.

[#] Dov Jaron was the Chair.

* Attachment #13 contains some correspondence with the *TAB Meetings Committee* regarding this effort.

[°] The minutes of the NNC AdCom (Attachment #14) reflect the support of Conference Co-Chair Karplus: "The budget is a NOT-TO-EXCEED budget. Chairs will not exceed the budget without authorization."

of \$20,000 is incorrect. The terms of Burke's contract were out of line with IEEE practice and were not in the approved conference budget. Burke's agent was irritated at the cancelation and asked for a cancelation fee. Kosko claims Burke's agent threatened litigation. I was unaware of this. The threat certainly was not made to me or the NNC. The NNC AdCom later felt Burke's agent was an innocent victim and, although no contract had been signed, voted to offer some settlement. Kosko states the decisions regarding Burke were mine. Again he is mistaken.+ The action was debated and legislated by the IEEE NNC AdCom. I executed the motion.¶

Joe Goodman, (IEEE Fellow, former EE Chair at Stanford and President of the *Optical Society of America*), was Chair of the 1990 IJCNN. His attempts to dampen Kosko's self promoting activities were fruitless. Goodman sent a letter to Kosko politely telling him to straighten up. Kosko resented the letter, told Goodman so, and thereafter ignored both Goodman and the letter. Goodman says (see Attachment #3) "*He (Kosko) feels he's been unfairly reprimanded, while I feel the reprimand was more than justified, and probably not strong enough.*" A result of this incident was Goodman's resignation as conference Co-Chair (Attachment #3).‡ Note that Goodman says "*My main function has been interaction with Bart Kosko, which you know has been a difficult job.*" This was literally true. The other conference Co-Chair, Walter Karplus, handled the rest of the conference.

Kosko declares he rejected one of Simpson's papers for the 1990 IJCNN. What he fails to mention is that Simpson's paper was a critical critique of Kosko's BAM. Simpson will be able to speak with more authority to this matter.

Another minor incident in the 1990 IJCNN was conflict of interest on tutorials. Kosko was scheduled to present a tutorial for an honorarium. He was also the conference Program Co-Chair and responsible for the tutorials. IEEE policy clearly addresses how such cases are handled. In my letter to Walter Karplus, IJCNN Co-Chair, I outlined the procedure and the matter was resolved in accordance to IEEE policy 9.9. Both Kosko and Freeman gave tutorials. Please note that, again, Kosko is in error. Both Walter Freeman and Bart Kosko were identified as in need of conflict of interest resolution. This is made clear in Attachment #4. Kosko was not singled out by Simpson or anyone else. I also do not agree with the importance that Kosko gives Simpson's abstention in this matter. The implications Kosko makes concerning Simpson's single vote are simply unwarranted.

IEEE NNC and the INNS

Kosko claims Simpson's review is tainted because of a 'well-known conflict between the IEEE NNC and the INNS'. Even if such a conflict existed, any suggestion that Simpson's review or my objectivity were thereby tainted is simply unjustifiable. Indeed, a number of INNS board members are involved in NNC activities. Many current and former Associate Editors of the TNN are or have been INNS Board members. Kosko accuses me, 'as NNC President, (of) unilaterally ending the NNC-INNS partnership.' Although I supported the dissolution, this is fabrication. As is the case with the other corrections made to Kosko's letter, there is documentation. Attachment #5 contains excerpts from the minutes of the meeting where the dissolution was decided by AdCom vote.

+ In Attachment #15, the specific motion concerning Burke is made.

¶ I was against offering the settlement money. A motion of AdCom, as seen in Attachment #16, instructed me otherwise. I believe I negotiated for a settlement of \$1,375 - half of the cancellation fee.

‡ Goodman later agreed to withdraw his resignation and served with distinction as the 1990 IJCNN Co-Chair.

IEEE Transactions on Neural Networks

Now let's talk about the *IEEE Transactions on Neural Networks* (TNN). I saw the paper Simpson sent to founding Editor Herb Rauch. It was subsequently rejected - apparently by Kosko. In my opinion, Simpson's idea of fuzzy ART is brilliant. It was independently reported by some prominent researchers at Boston University (Grossberg & Carpenter) and has been subsequently published in the *IEEE Transactions on Fuzzy Systems*. Chips based on Simpson's idea are currently being fabricated. Unfortunately, Simpson's first attempt at reporting the results could have been written better. I know from personal experience that Herb Rauch set the standards of the *IEEE Transactions on Neural Networks* very high, and let few papers undergo a chance at revision.

Mohamad Hassoun is the Book Review Editor for the *IEEE Transactions on Neural Networks* (TNN). He chose Simpson to review Kosko's book for a very good reason. At the time, Simpson was one of the few visible researchers in the United States that was knowledgeable of both fuzzy systems and neural networks. The choice was a good one. Hassoun was very complementary on the review (Attachment #6) calling it "*thorough and careful*". When Kosko began his barrage on Hassoun to try to get the review withdrawn, Hassoun diplomatically attempted a compromise, including an offer of a rejoinder and the publication of a second review from a list of reviewers supplied by Kosko (See Attachment #7). Kosko refused it both then or now. In his letter to Hall, Kosko reiterates he wants the review not to be published and rejects any compromise. I agree in part. IEEE does not typically allow rejoinders to book reviews. The practice of allowing authors to choose the reviewers of their books is also inappropriate. Loud vacuous objections are not a reason to change these practices.

As Editor, I decided to go the extra mile and subject Simpson's review to a review. In his letter to Hall, Kosko calls the reviewers my two "*fuzzy friends*". Here, and in two other documents addended to this letter, Kosko implies 'friends' are those who do back room favors without consideration of ethics. His description is inaccurate.

Normally, I would not disclose the names of the reviewers of any TNN manuscript. I have, however, asked both reviewers if I could reveal their names. They both said yes. The first reviewer is **Enrique Ruspini**, the Chair of both the 1993 ICNN and 1993 FUZZ-IEEE. Ruspini is an early pioneer in the use of fuzzy logic and is an SRI Fellow. He is featured in a video tutorial sponsored by the *IEEE Educational Activities Board* that is one of the EAB's all time best sellers [Wiesner].^o The other reviewer is **James C. Bezdek**, an IEEE Fellow. Bezdek is the organizer of the first FUZZ-IEEE meeting and is the current Editor-in-Chief of the *IEEE Transactions on Fuzzy Systems*. He is founding editor and past Editor-in-Chief of the *International Journal of Approximate Reasoning*. He has written and edited a number of books on fuzzy systems, including a current best seller of paper reprints for IEEE Press. He has given numerous neural network and fuzzy tutorials.[†] Kosko discounts their reviews because I said in my letter to the Ruspini and Bezdek "*I know you are familiar with the contents of Dr. Kosko's book*". Kosko says this is "*proof*" I knew the outcome of the two reviews in advance. Again, Kosko is incorrect. Everybody doing research in fuzzy systems was aware of Kosko's book. Kosko's self promotion made it hard to be otherwise. Kosko says in his letter to Hall that the journal *Fuzzy Sets and Systems* proclaimed his book the "*best fuzzy book of the decade*". Why, then, should one not assume two of the top experts in the field would be familiar with its contents?

^o Those whose names appear in square brackets, in this case Wiesner, are suggested for corroboration.

[†] I suspect Kosko has learned or suspects that Bezdek was one of the reviewers. TNN policy allows authors to specify an Associate Editor and/or reviewer that should be avoided. Kosko has chosen Bezdek.

Kosko contends that Simpson's review was 'full of errors'. In their review of Simpson's review, two of the top researchers in the world, Bezdek and Ruspini, do not agree with Kosko.

Lastly, let me address the 'firing' of Kosko as an Associate Editor of the *IEEE Transactions on Neural Networks*. When I took the reigns of the TNN from former Editor-in-Chief, Mike Roth, I talked with him at length about the Associate Editors. Two, in particular, he called 'black holes'. I remember the verbiage because it was so precisely descriptive. Kosko was one. Associate Editors that are 'black holes' cause an inordinate amount of problems for an Editor. Kosko and the other 'black hole' were not named to my team of Associate Editors.

WHY IS THIS HAPPENING?

The true reasons Kosko does not wish the book review to be published, I believe, are (1) his unwillingness to back down from his confrontation with Patrick Simpson and (2) his pursuit of fame and belief that Simpson's review will impede his quest. Following is documentation supporting these conclusion.

In support of reason #1, an *LA Times* Sunday supplement article (Attachment #8) on Bart Kosko states, "*Beneath it all lies obduracy that prevents Kosko from ever backing down from a fight. Bart Kosko is cocky and tenacious and driven by the belief that time is the enemy of all things*". I will show that Kosko fights any perception of criticism by breaking into a mantra of 'conflict of interest' and 'personality conflict'. The same article quotes Kosko as saying "*You have to have a great belief in the truth of your own statements. You may have stumbled, humbly, upon a universal truth, but if the world ... says you're wrong, it takes immense ego not to agree with them.*" In regard to Simpson's book review, this same momentum of belief in the face of evidence and opinions otherwise has, I believe, prompted Kosko to build his conspiracy theory that Simpson (and I) are 'out to get him'.

As stated in reason #2, Kosko is highly concerned with his own PR and, I believe, felt Simpson's book review would in some way hurt the sale of his book and image. Curiously, Kosko's protection of his self interest by attacking the character of Simpson, by IEEE definition, is a true *conflict of interest*. Kosko has a strong reputation for self promotion. (See the largely positive overview in Attachment #8). When done properly, self promotion is a positive trait. When done at the expense of others, it is not.

Kosko wrote numerous letters to prominent researchers suggesting addenda for their work and citing work of his own that they should cite. This is admirable. What is not is his character defamation of those who do not agree with him or take his advise. In a letter to David Parker (Attachment #9), one of the discoverers of error backpropagation, Kosko chides Parker for not citing some of Kosko's work. He writes "*I was surprised that none of these (Kosko's) papers ... were cited. ... How could you do that?*". The letter ends with a character assassination. "*I am disappointed, not just because I have considered you a friend, but because ... I have considered you a paragon of intellectual honesty.*" The clear implication is that, since Parker did not reference Kosko in accordance to Kosko's liking, Parker was not a man of intellectual honesty. Kosko copied the letter to giants in the neural network field, including *NNC Council Pioneer Award* recipients Bernie Widrow and Stephen Grossberg. The conference chair for both the 1988 ICNN, Robert Hecht-Nielsen, was also copied. Note also that, in Attachment #9, Kosko tells Parker, "*I have considered you a friend*" again implying Kosko's belief that, despite specifics of a request, friends should do what friends ask. In Kosko's letter to Hall, he remarks Patrick Simpson and I are 'friends'. We are - but not in the sense of Kosko's definition.

Kosko flaunted himself at the first *IEEE International Conference of Fuzzy Systems (FUZZ-IEEE)* in 1992. He arrived at the same time as his video-camera crew and interviewer. They strolled through the conference reception area. FUZZ-IEEE participants were asked on camera about the contributions of Bart Kosko to fuzzy logic. This, even though Kosko's role in the conference was service as one of approximately seventy program committee members. The action was an inappropriate intrusion on the conference [Eberhart].

Even though I have never met Kosko, he tells Hassoun we have a "*an unfortunate personality conflict*" (see Attachment #10).

LOOSE ENDS

I want no false claim in Kosko's letter of which I am aware to go unchallenged. Here are some I have not yet addressed.

1. Kosko claims Simpson defamed his character to Morgan Downey, the Director of the INNS. I submit Mr. Downey is not a disinterested source in any matter dealing with the NNC. Downey has threatened members of the NNC with litigation [Irv Engelson, Eberhart]. Other NNC Members [Nutter, Bezdek] can share additional specifics with you.
2. Kosko says it is not fair that a 'controversial' book review written by the NNC Vice-President should be published. Please read the review and decide for yourself if the term 'controversial' is appropriate.
3. With an implication they will corroborate his accusations, Kosko requests you call sources such as Mike Roth, Walter Karplus and Herb Rauch. I encourage you to do so. I believe you will find that Simpson, in all cases, acted as a professional and a gentleman.
4. Kosko said he was seeking damaging documents concerning Simpson through the Freedom of Information Act. Kosko's letter was written over a year ago. I urge you to ask him about the fruits of his request to the FBI.
5. Kosko's account of the review of his IEEE TNN paper borders on fraud. Documentation is in Attachment #17. First, he misrepresented his paper. Kosko states in his cover letter "I submitted an earlier and briefer version of this paper ... (to) FUZZ-IEEE." Wrong. The paper submitted was the FUZZ-IEEE paper verbatim. The Associate Editor objected to the review of the paper on this ground. Submitting papers to IEEE archival journals that were previously published in reviewed IEEE conference proceedings is not against IEEE policy. I feel it should be. Doing so wastes valuable review time and journal page space. Within the NNC, double publishing is now prohibited. The Associate Editor in charge of the review told me he had called off the reviews. I told Kosko this. Apparently, the Associate Editor didn't tell the reviewers that the review was off. By this time, Kosko's e-mail messages to me were getting progressively more abusive. In the final one, he said I was a terrible editor and should resign. I caved into his bullying and decided the paper would not be rejected due to its previous publication. When the reviews came in, I sent them to Kosko. They are in Attachment #17. Contrary to Kosko's account, the reviews were mixed. Kosko is also incorrect when he states that his paper was rejected. Kosko, rather, was sent a standard TNN 'revise and resubmit' form letter. My addendum to the 'revise and resubmit' letter is on the last page of Attachment #17. Kosko misrepresents its contents. Kosko's e-mail was hostile towards me and I offered a resolution solution. I specified what I believed to be a method to fairly hand over the matter to another journal. As is the other cases of offered resolution and compromise, it was rejected by Kosko.

6. Kosko claims Simpson's review, on *Accurate Automation* stationary, holds *Accurate Automation* responsible for review's contents. Kosko's letter to Hall is on USC stationary. Is USC then legally responsible for the contents of Kosko's letter?

WHAT'S THE CHARGE?

I have tried to identify the IEEE policy Kosko claims has been violated in regard to Simpson's review of his book. Section 6.22 of the *IEEE Policy and Procedures Manual*[¶] (January 1993) specifies how the difference is to be adjudicated, but does not specify any policy that has been violated. Although Kosko uses the phrase 'conflict of interest', he clearly means it in a different sense than is defined in IEEE policy 9.9. 'Conflict of interest', as defined by IEEE, requires an IEEE member use his or her IEEE position for unfair financial or business reasons. The policy closest to describing Bart Kosko's charges is paragraph 9 of Policy 7.8 - the *IEEE Code of Ethics*. Specifically, Simpson is being charged with acting unethically by 'injuring others, their ... reputation, or employment by false or malicious action.' To those who know Patrick Simpson, a charge that he, in any way, is unethical will be scoffed.

What I find surprising is the vigor of Kosko's attacks on Simpson's 'negative and controversial book review' considering what I believe the relative mildness of the review (Attachment #11). I feel the review of Kosko's second book (Attachment #12) by Williams is much more critical[‡].

CONCLUSION

As with the charges made in Kosko's letter, my response has been somewhat rambling. Let me try to bring the matter into perspective and focus. The question being decided is whether Simpson's review of Kosko's book should or should not be published. The decision is to be made in accordance to the evidence and IEEE policy. The crux of Kosko's charge is he has a 'conflict of interest' and 'personality conflict' with Simpson. On other occasions, he has claimed to have had similar conflicts with me

... and David Parker.

... and Joe Goodman.

...and Jim Bezdek

In all cases with which I am familiar, Kosko has clashed head-on with those he perceives are in the way of the fame he deserves. Kosko claims to 'prove' a case in his letter. Although convincing, his letter is ripe with false statements and unsubstantiated innuendo. As documented, there is little wheat and much chaff.

The scrutiny to which Simpson's review was subjected was fair, evenhanded and, frankly, overdone. There is nothing false or malicious in the review that even hints at violation of the *IEEE Code of Ethics* or any other IEEE policy with which I am aware. Indeed, Bezdek, Ruspini, Hassoun and I rate the review highly. Please take time to read it. Not publishing is unfair to all other book authors whose books are reviewed by the rules. Simpson's review must be published. A ruling to the contrary would establish a terrible precedent for IEEE.

[¶] Excerpts are in Attachment #19.

[‡] Given the current situation, Hassoun was very careful on the review of Kosko's second book. He asked a disinterested party to choose the reviewer.

I urge the *TAB Periodicals Committee* to approve publication of Simpson's review of Kosko's book without further delay.

Sincerely,

Robert J. Marks, Past President
IEEE Neural Networks Council

◆ Attachments:

1. The letter meant to stop financial and self-promotional abuses at the 1990 ICNN.
2. The matter of Burke and his whistling lemons.
3. Goodman's resignation
4. ICNN 90 conflict of interest resolution.
5. NNC minutes dissolving the INNS agreement.
6. Hassoun's review of Simpson's review.
7. Hassoun's attempt to compromise with Kosko.
8. Sheldon Teitelbaum, "Making things perfectly fuzzy", Los Angeles Times Magazine, April 1, 1990.
9. Kosko letter to Parker.
10. 'Personality conflict' with someone you haven't met.
11. Simpson's review of Kosko's book.
12. Review of Kosko's second book by Williams.
13. Correspondence on stopping ICNN abuses.
14. NNC AdCom minutes, Jan 16, 1990, pp.1-2.
15. Excerpts from AdCom minutes, November 26, 1989.
16. Excerpts from AdCom minutes, June 19, 1990.
17. The Review of Kosko's paper.
18. Kosko's letter to Hall.
19. Excerpts from IEEE Policy & Procedures Manual.

◆ Some of the people cited in my letter:

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445 Hoes Lane
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Piscataway, NJ 08855-1331
(201) 562-3850 (O), FAX: (201) 562-1571

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Attachment #1. The letter meant to stop financial and self-promotional abuses at the 1990 IJCNN.

UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98195

Interactive Systems Design Laboratory
Department of Electrical Engineering, FT-10
Telephone: (206) 543-6990 (office), 543-6061 (secretary),
543-2150 (main office), 543-3842 (FAX).
marks@blake.acs.washington.edu

June 12, 1989

Prof. Walter Karplus, General Co-Chair
International Joint Conference on Neural Networks, Summer 1990
3732 Boelter Hall
UCLA
Los Angeles, CA 90024

Prof. Joseph W. Goodman, General Co-Chair
International Joint Conference on Neural Networks, Summer 1990
Dept. of Electrical Engineering
Stanford University
McCullough 150
Stanford, CA 94305-4055

Dear Joe and Walter:

On behalf of the *IEEE Neural Networks Committee (NNC)*, thank you for agreeing to be the General Co-Chairs of the Summer 1990 *International Joint Conference on Neural Networks*. Please let me know if there is any way I can be of assistance during your execution of these duties.

In previous IEEE sponsored conferences on neural networks, there have been some problems surface which must not be allowed to reoccur. By this letter, I am informing you of these concerns and direct that they not be allowed to take place in the Summer '90 *IJCNN*.

- ◆ Adherence must be given to *IEEE Policies and Procedures, the NNC Charter* and the *IEEE NNC & INNS Agreement* on joint sponsorship of *IJCNN*'s. The last two documents are included in the agenda book for the upcoming NNC meeting that was recently mailed to you.

A excerpt from the *IEEE NNC & INNS Charter*, for example, reads "SESSION CHAIRS ARE NOT NORMALLY COMPENSATED FOR THEIR TRAVEL EXPENSES". This policy has been blatantly violated in previous conferences. The problem was compounded by the noninclusion of the expense in the approved conference budget. The IEEE is currently reviewing the matter for possible action.

This and similar problems can be avoided by timely approval of the conference budget. Any expenditures that are not included in the approved budget will not be honored. They will, rather, be considered the personal responsibility of the person or persons making the financial commitment.

Any expenditures prior to the approval of the conference budget should be

- consistent with and in the spirit of traditional IEEE conference planning guidelines.
- personally approved by you.

I am willing to officially answer any specific questions that arise in this regard.

- ◆ In order to help avoid commercialization of the conference and so that there is a coordinated unified voice, all publicity matters - including news releases and press conferences - are your responsibility. I prefer that you do not delegate this responsibility. In past conferences, a number of people associated with the conference have presented themselves as conference spokesmen. Although anyone can speak to the press, only you are authorized to identify yourself as spokesmen for the Summer '90 *IJCNN*. Those affiliated with the conference should direct queries in such matters to you.

As a personal request, I ask that the upcoming *IJCNN* focus more on the current status of engineering and scientific investigation of neural networks and less on futuristic hype. By this approach, I believe that the field will mature in strength and have a healthier future.

Best personal regards,



Robert J. Marks II
NNC Chairman *pro tem*

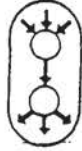
cc: WALTER FREEMAN, *IJCNN* SUMMER '90 PROGRAM Co-CHAIR
BART KOSKO, *IJCNN* SUMMER '90 PROGRAM Co-CHAIR
H. JOHN CAULFIELD, *IJCNN* SUMMER '90 FINANCE CHAIR
PATRICK SIMPSON, *IJCNN* SUMMER '90 LOCAL ARRANGEMENTS CHAIR
NICHOLAS DeCLARIS, *IJCNN* OVERSIGHT COMMITTEE, CHAIR
BERNIE WIDROW, *INNS* CHAIR

RJM:tsm

Attachment #2. The matter of Burke and his whistling
lemons.



COUNCIL ON NEURAL NETWORKS



Robert J. Marks II
President

PLEASE REPLY TO:
University of Washington
Dept. of Electrical Engineering, FT-10
Seattle, WA 98195 USA
Tel.: (206) 543-6990
Fax: (206) 543-3840
marks@blake.acs.washington.edu

4-11-90

Carlton S. Sedgeley
Royce Carlton Incorporated
866 United Nations Plaza
New York, NY 10017-1880

Dear Mr. Sedgeley,

As I told you on the phone, the *IEEE Council on Neural Networks* is disappointed that your agency found our counter offer for the services of James Burke unacceptable.

The Council has approval authority on all budgetary items concerning the *International Joint Conferences on Neural Networks (IJCNN)*. All of the principals of the conference were made aware of this in a letter from me dated June 12, 1989 which, in regard to the IJCNN, stated

"Any expenditures that are not included in the approved budget will not be honored. They will, rather, be considered the personal responsibility of the person or persons making the financial commitment."

I hope that this authority was not presented to you otherwise.

I extend to you my personal best wishes in the future success of your enterprise.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. Marks II'.

Robert J. Marks II, President
IEEE Council on Neural Networks

cc: Laura Jobmann, IEEE Conference Service
Evangelia Tzanakou, NNC Secretary
Russ Eberhart, NNC Vice-President
Walter Karplus, IJCNN Chair

Royce Carlton
INCORPORATED

Contract

Copy

No. 9438

Sedgely-C
105/61890

This contract "entered into" as of **September 29, 1989** by and between ROYCE CARLTON, INC.,
866 United Nations Plaza, New York, NY 10017-1880, the duly authorized agency of the speaker, hereafter referred to as "Agency" and
International Joint Conference on Neural Networks (IJCNN-90)
IEEE/INNS
c/o Bart Kosko, 3367 Garden Terrace Ln, Hacienda Hls., CA 91745
hereafter referred to as "Sponsor" Agency will provide the services of

James Burke

hereafter referred to as "Speaker," to lecture (perform) at the date, time and place specified below.
DATE: **Monday, June 18, 1990** TIME: **7:00 PM**
PLACE: **San Diego Marriott Hotel and Marina**
OTHER ACTIVITIES: **6:00 PM - Dinner**

Sponsor shall provide a well heated, lighted and proper place for the lecture, in good condition, together with all necessary stage accessories and properties.

TOPIC: **Connections: Mechanisms of Change - Do Lemons Whistle?**

No lecture or program or any part thereof is to be reproduced including but not limited to the reproduction by broadcasting, video-taping or tape recording, without the written permission of the Agency or Speaker.

Sponsor agrees to pay Agency as consideration for Speaker's services the amount set forth under "TERMS" below. Payment shall be made immediately following the completion of the Speaker's engagement and mailed to: ROYCE CARLTON, INC., 866 United Nations Plaza, New York, New York, 10017-1880. Federal Tax Identification Number for ROYCE CARLTON, INC. is 13-2623502. If applicable, any and all city, state and federal amusement taxes shall be paid by Sponsor.

TERMS: **\$7500, plus first class travel and accommodations (50% due upon signing) (special low fee-confidential)**

It is understood that this Contract is binding on both parties. It cannot be cancelled except as follows: The Agency and Sponsor mutually agree that either party may cancel this contract and all parties shall be released from any liability or damages hereunder, if the Speaker or Sponsor is unable to fulfill the terms of this contract due to an act of God or any other legitimate conditions beyond the control of the Speaker or the Sponsor. However, it is agreed by both parties that "best efforts" will be made by both parties to so adapt that the lecture be presented as scheduled.

CONTACT(S):

Bart Kosko, Ph.D.
IJCNN-90 Program Co-Chair
3367 Garden Terrace Ln
Hacienda Hls., CA 91745

(213) 743-6581 (B)
(818) 330-5415 (H)/330-9723 (FAX)

Nomi Feldman - Conference Consultant
Meeting Management
5665 Oberlin Dr.
Suite 110
San Diego, CA 92121

(619) 453-8222 (B)

The representative of Sponsor, in signing this Contract, warrants that (s)he signs as a duly authorized representative of the Sponsor and does not assume any personal liability. The Agency representative warrants that the Agency has express authority to sign on behalf of the Speaker.

Your signed copy of the Contract is acknowledgement that Speaker has accepted this engagement and has agreed to appear at the time and place specified above. ROYCE CARLTON reserves the right to withdraw this offer should this contract not be received within thirty (30) days of the date "entered into."

This Contract is governed by the laws of the State of New York and cannot be changed except in writing and signed by both parties.

IEEE/INNS

Royce Carlton, Inc.

BY _____ BY _____
Carlton B. Sedgely - President

Please sign all three copies of this Contract, retain the SPONSOR COPY (BLUE) and return the SPEAKER COPY (YELLOW) and AGENCY COPY (WHITE) to ROYCE CARLTON, INC., 866 United Nations Plaza, New York, New York, 10017-1880.

Sponsor will receive an invoice and Speaker's itinerary approximately one week before engagement.

ADDITIONAL INFORMATION

ATTENDANCE: unless: **Business** FUNCTION: **Annual Meeting**
SUGGESTED HOTEL: **San Diego Marriott Hotel and Marina, 333 W. Harbor Dr., San Diego, CA 92101-7709 (619) 234-1500**
SPONSOR WILL: MAKE HOTEL RESERVATIONS PROVIDE TRANSPORTATION TO AND FROM AIRPORT
TRANSPORTATION: **San Diego Int'l Airport**
CONTACT ON ARRIVAL: **Nomi Feldman** SEND INVOICE TO: **Bart Kosko, Ph.D.**

AGENCY WILL PROVIDE: 2 PHOTOGRAPHS 2 BIOGRAPHICAL DATA

THIS CONTRACT FORM ENDORSED BY
National Association of Campus Activities and International Platform Association

Agency Copy (White Copy) - Speaker Copy (Yellow Copy) - Sponsor Copy (Blue Copy)

866 United Nations Plaza, New York, NY 10017-1880
(212) 355-7700 FAX (212) 888-8659

Royce Carlton
INCORPORATED

AGENTS, MANAGERS AND BROKERS FOR SPEAKERS

May 14, 1990

866 United Nations Plaza
New York, NY 10017
(212) 355-7700
Fax (212) 888-8659

Robert J. Marks II, President
IEEE Council on Neural Networks
University of Washington
Dept. of Electrical Engineering, FT-10
Seattle, WA 98195

Dear Mr. Marks,

Thank you very much for your letter in April which I must say was very distressing.

Since contracting with you folks for JAMES BURKE back in September 29, 1989, I have had several conversations with Bart Kosko about one thing or another, including the difficulties he was experiencing with first class air travel. I reminded Bart Kosko that Mr. BURKE had reduced his fee \$2,500.00 as a favor to him, but could not go coach or business class as he simply is too many hours in a plane each year. Bart Kosko assured me that all would be resolved.

Further, we had assurances from Nomi Feldman, your Conference Consultant that everything was proceeding to her knowledge as was planned...she even sent me a brochure announcing JAMES BURKE at the Conference. I was told that the delay in sending the signed contracts and deposit was a function of a lumbering bureaucracy.

Then, in late March JAMES BURKE was having some difficulty with his filming schedule for a two-part program called "After the Warming" for Maryland PBS. He mentioned that he may very well be coming from Australia to San Diego just for the day and back to Japan. However, he assured me that he would pay the difference in air fare from roundtrip first class London out of his own pocket, as he had agreed to do the speech some time ago.

To alert Bart Kosko of the difficulties Mr. BURKE was having in scheduling and to tell him of the potential added air fare, and how we were going to resolve it, I called Mr. Kosko to advise him. He then told me that he was having some further difficulty in that the committee indicated that the most that they could now come up with for the fee was \$5,000. and possibly business class air fare. I immediately said "no" and noted once again that we had already made a final agreement for a fee \$2500. less than Mr. BURKE's association fee. He then indicated that he could not go ahead with the original contract, but agreed that we should receive a cancellation fee as would have normally occurred if our contract was cancelled.

Royce Carlton
INCORPORATED

Page Two
Robert J. Marks II
May 14, 1990

Bart Kosko then asked that I speak with Walter Karplus, IJCNN, Chairman who also understood our position and agreed that Mr. BURKE receive a cancellation fee as this cancellation came after all these months and Mr. BURKE had not been dealt with properly.

After the above sequence of telephone calls and events, we had our conversation by telephone and then I received your letter of April 21, 1990.

You mentioned in your letter that as of June 12, 1989, it was made quite clear to everyone that no speaker was to be considered unless it fit within a predetermined budget. It seems very strange to me that we contracted for JAMES BURKE on September 29, 1989 with Bart Kosko which appeared to be agreeable at that time. There was obviously some miss communications.

Please find an invoice for \$3,750. which will be hopefully honored by the Council on Neural Networks. This represents the deposit which would have accompanied the signed contracts for JAMES BURKE. This deposit would have been forfeited should you have then cancelled the contract as written...which you finally did.

Thank you.

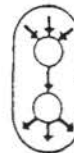
Very sincerely yours,



Carlton S. Sedgeley
President

CSS:em
enc.

cc: James Burke
Bart Kosko, IJCNN-90 Program Co-Chair
Nomi Feldman, Conference Consultant



IEEE

COUNCIL ON NEURAL NETWORKS

Robert J. Marks II
President

PLEASE REPLY TO:
University of Washington
Dept. of Electrical Engineering, FT-10
Seattle, WA 98195 USA
Tel.: (206) 543-6990
Fax: (206) 543-3840
marks@blake.acs.washington.edu

6-11-90

Carlton S. Sedgeley
Royce Carlton Incorporated
866 United Nations Plaza
New York, NY 10017-1880

Dear Mr. Sedgeley,

I write in response to your letter dated May 14, 1990. I plan to present this letter to the Meetings Committee and subsequently to the AdCom of the *IEEE Neural Networks Council*. As I indicated to you previously, the AdCom of the *IEEE Neural Networks Council* has the responsibility of approving all budget items in regard to conferences which it co-sponsors.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert J. Marks II".

Robert J. Marks II, President
IEEE Neural Networks Council

cc: Laura Jobmann, IEEE Conference Service
Evangelia Tzanakou, NNC Secretary
Russ Eberhart, NNC Vice-President
Walter Karplus, IJCNN Chair

- Attachment #3. Goodman's resignation

Received: from Sierra.Stanford.EDU by blake.acs.washington.edu
(5.61/UW-NDC Revision: 2.1)id AA26448; Mon, 8 Jan 90 07:19:14 -0800
Message-Id: <9001081519.AA26448@blake.acs.washington.edu>
Received: from localhost by sierra.STANFORD.EDU (3.2/4.7); Mon, 8 Jan 90 07:17:09 PST
To: marks@blake.acs.washington.edu
Cc: karplus@cs.ucla.edu
Subject: Bart Kosko
Date: Mon, 08 Jan 90 07:17:08 PST
From: goodman@sierra.STANFORD.EDU
Status: R

Bob, I want to inform you about a situation which is impairing my ability to do much with regard to the neural networks conference. My main function has been interaction with Bart Kosko, which you know has been a difficult job. Bart no longer responds to my e-mail, and I find that it is difficult to impossible for me to communicate with him at all. He has not responded to requests to supply information. He does not answer my telephone calls.

The reason for this impasse is clear to me. Bart very much resents the letter I sent him some months ago, with a copy to you. He feels he's been unfairly reprimanded, while I feel the reprimand was more than justified, and probably not strong enough.

Given that I can no longer carry out my main function, communication with Bart, I wonder whether it makes sense for me to remain as co-chair. Walter Karplus is doing a great job, and probably has not yet burned bridges with Bart enough to have a problem communicating with him. It would be fairer to Walter to give him credit for all the work he's doing by naming him sole Chairman. On top of all this I have been elected Vice President of the OSA, as you may know, and have a very demanding travel schedule resulting from that.

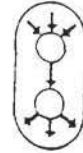
In retrospect, it is very clear that naming Bart Technical program Chair, given the past problems with this meeting, was a very unwise move. I don't really think the problems can be ironed out until the meeting becomes total divorced from the old San Diego leadership that ran it before.

By the way, I do not think that it makes sense to contemplate removing Bart from his position at this stage. It could do serious damage to the meeting.

Please take this message as a submission of resignation.

Joe

Attachment #4. ICNN 90 conflict of interest resolution.



COUNCIL ON NEURAL NETWORKS

Robert J. Marks II
President

PLEASE REPLY TO
University of Washington
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Seattle, WA 98195 USA
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Fax: (206) 543-3840
marks@blake.acs.washington.edu

June 5, 1990

Professor Walter Karplus
UCLA
3732 Boelter Hall
Los Angeles, California 90024

Dear Walter,

Section 9.9 of the January 1990 IEEE Policy and Procedures Manual states in part:

CONFLICT OF INTEREST

"For the purpose of this policy, conflict of interest is defined as any situation in which a member's decisions or votes could substantially and directly affect the member's financial or business interests. It is the responsibility of all IEEE members in any elected, appointed, or volunteer position of an Institute activity to consider each item of business where they have a vote or decision authority to determine if a conflict of interest may exist. Any such recognized potential conflict shall be made known immediately to the person in charge of the activity (or the next higher authority if the member is in charge) who, after consultation with other individuals in the activity, will advise the member of the proper course of action and cause a notation of the action to be entered in the activity's record."

The opinion of IEEE Conference Services and the Neural Networks Council is that there exists the appearance of a conflict of interest

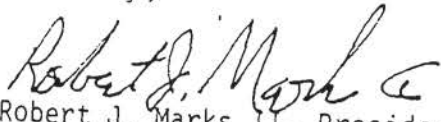
To: Walter Karplus

Page 2

in the dual roles of Bart Kosko and Walter Freeman as both tutorial organizers and tutorial instructors at the upcoming IJCNN in San Diego.

The matter can be resolved by adherence to the provision in the policy. Please advise me on actions you take in this regard.

Sincerely,


Robert J. Marks II, President
IEEE Neural Networks Council

RJM:vbh

cc: Joe Goodman, IJCNN Co-Chair
Laura Jobmann, IEEE Conference Services
Bart Kosko, IJCNN Program Chair
Walter Freeman

Attachment #5. NNC minutes dissolving the INNS
agreement.

MINUTES OF THE IEEE/NNC MEETING

JANUARY 26, 1991

Present:

Jim Bezdek

Bradley Dickinson

T. Fukuda

Jennifer Humphrey

W. Karplus

Bob Marks

Roy Nutter

Charlie Robinson

Pat Simpson

Evangelia Tzanakou

Don Brown

Russ Eberhart

Karen Haines

Stanatios Kartalopoulos

Clifford Lau

Bob Newcomb

Vince Poor

Mike Roth

Wes Snyder

The meeting came to order at 2:09 pm, Robert Marks presiding.

An introduction of attendees took place and quorum was declared.

Proxies were presented for Shiro Usui of Japan to R. Eberhart, Les Atlas representative from the Signal Processing Society to R. Marks. The Chair of the meeting requested permission not to exercise the proxy unless it would change the outcome of a vote. Also H. Rauch to R. Marks and T. Nagel to T. Fukuda.

The proposed agenda with corrections and additions was adopted.

A suggestion was made to discuss the NNC association with the INNS before the report from the Meeting Committee was adopted.

R. Eberhart, in the Vice President's report, said that he had spent most of the last six months involved in the IJCNN with INNS (a discussion was presented later) as well as the meetings in Japan and Beijing (discussion also followed later).

E. Tzanakou, in the Secretary's report, discussed the South American Colloquium. She mentioned that an EMBS Symposium took place in Brazil one day ahead of the Colloquium with great success. Delegates as well as local people gave presentations in the five cities visited. Everybody had good memories from that trip. It is a worthwhile experience.

P. Simpson in the Treasurer's report gave the good news of \$375K surplus.

The floor was turned over to M. Roth. He talked about different subjects. The January issue of the Transactions being 190 pages long - quite an achievement. The transition from H. Rauch to him was very smooth and is complete at this point. Automation is 70% completed. The subscription rate is maintained at 8300 which is way above the subscriptions of any other Neural Networks journal and above the total of all. He requested approval of a page budget so that goes into the IEEE publications budget in time. The rest of the issues of the Transactions for the year will be at 75 pages each. He also presented an argument that more flexibility is needed in order to be able to increase the income of the Transactions. As it is now you are allowed to increase it by only 6%. The budget he presented showed a deficit. By approving a 960 page budget we will be able to run the Transactions in the black instead of in the red. **A motion that "The Council approve the budget for 1992 Transactions page limit be increased to 960 pages" was passed.** The last item discussed by M. Roth was a motion that **"The Council recognizes H. Rauch as the Founding Editor of the Transactions on Neural Networks" was also passed.** H. Rauch's name will be recognized and put on the inside cover of the Transactions. R. Marks will send a letter to Herb along with a certificate of recognition.

The discussion moved to the IEEE and INNS agreement. R. Nutter moved to dissolve IOC with INNS on December 31, 1991. This recommendation came from the Meetings Committee. It was seconded by R. Eberhart. The discussion

continued with what the implications might be down the road. R. Marks said he would call P. Werbos, President of INNS, and then he will send a follow up letter. According to our agreement, any unfinished business between IEEE-INNS will be addressed by the two presidents. The implications might be the effect on the future meetings for which budgets have already been approved by both bodies. These meetings will go ahead as planned and that includes Singapore. INNS has not approved the budget for Baltimore in '92. If the motion passes the name of that conference will change to ICNN which is the name we own. The one in Japan will also be ICNN. The other implication is a positive one, namely that we will be able to work with INNS on a case by case basis. According to the agreement, in the event of dissolution each society shall honor its previously approved budget. After dissolution, both organizations agree not to use the conference name IJCNN. The Neural Networks Council reserves the explicit right to use the conference name, International Conference on Neural Networks. After a long discussion, the motion passed.

In the Committees reports, R. Nutter presented a motion for "approval of the Preliminary Budget and the appointment of Jim Bezdek as Organizing Chair of the International Fuzzy Conference. This includes \$30,000 seed money from NNC". The Steering Committee should contact the Presidents of all the member societies and if there are no objections request if they would like to become part of this society for this conference. With non opposed, the motion passed.

Next motion presented by R. Nutter, "I move that the preliminary budget for the IJCNN '93 Nagoya meeting be approved with the understanding that no seed money from NNC is needed. The surplus will be shared 1/3 INNS, 1/3 NNC, and 1/3 Japanese Societies with no risk of either INNS or NNC funds".

T. Fukuda gave a report and a long discussion took place with the main interest as to what impact the dissolution of the INNS-NNC agreement will have on this conference and in particular the people that are involved in the participating committees. A suggestion was made to change the wordage in the motion to indicate that "these organizations be cooperative societies". An amendment was also discussed to reduce the 1/3 of each society to 1/2 for NNC and 1/2 to the Japanese

Societies. The amendment passed after some discussion. A second amendment to "change IJCNN to ICNN and to remove INNS from sharing the surplus contingent on dissolution of Agreement after informing INNS in writing of our intention of not signing the agreement" was also passed and the discussion was turned over to the original motion with the two amendments. After a long debate on what is parliamentary and a motion to defer discussion and go back to the original motion, it was agreed to work on a substitute motion which reads "The AD COM directs the NNC President not to sign the IOC agreement with INNS (as presented in TAB 18)."

W. Karplus suggested that "Parliamentary technicalities aside, I think INNS has been working as if this agreement was in place and whether or not a lawyer could say we are legally obligated under this is besides the point. Whatever understanding existed between the two societies is important."

At this point, the proposal by R. Marks for a five minute break took place and after that the discussion was resumed, R. Nutter, who had come up with the proposal discussed it further.

R. Nutter: "I would like to discuss this with this in mind. We have a meeting in Seattle scheduled for July, we have a meeting in Singapore scheduled for November. We would propose if we don't have a signed agreement now, we have no protection for ourselves in Seattle and they have no protection for Singapore. What we would propose is that the agreement be in place this year. We can disassemble the agreement December 31 if that is what you want to do. I think we are making a mistake not taking this agreement, we have been working under this agreement for a couple of years, we have been telling them 'we have an agreement whether you signed it or not'. We have no protection at all, and they have no protection from us".

R. Eberhart: "I support that. If you think about it, the money making conference this year will be Seattle. Singapore will break even, and will have a small surplus probably, but first from a monetary standpoint, we're better off with INNS this year and everyone has been working in good faith on these two conferences right down the line".

Another concern was expressed in respect to the Baltimore meeting. No further discussion took place and the motion was defeated. The floor was opened for motions again and the original motion "to dissolve IOC with INNS on December 31, 1991" is now on the floor.

R. Marks mentioned that if this motion passes, in his letter to P. Werbos, he will enclose a signed agreement as an attachment. Concern was expressed from the floor as to when to dissolve the agreement. The suggestion was made to dissolve it as of June 1992. This became a motion to amend the original motion. The amendment to say "the agreement will be dissolved for all meetings after June 1992 passes". With this amendment the original motion passes.

The deferred motion is back on the table. "The preliminary budget of the IJCNN 1993 Japan meeting be approved, no seed money is needed from the NNC, amended to surplus 1/2 the Japanese society, 1/2 the NNC. Also the motion is contingent on the dissolution of the agreement." Motion carries.

Next item on the agenda is the IJCNN Summer 1992 Baltimore Meeting.

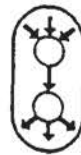
R. Nutter moved for approval of the Preliminary Budget including \$50,000 for seed money and authority to execute a conference management contract for Baltimore IJCNN '92. C. Lau presented the budget for the Baltimore IJCNN Conference in 1992 (June 7-11). Motion carries.

Next item is the 1991 IJCNN in Singapore. R. Eberhart was asked to present the budget. With apologies that he had left the most recent budget in his office, he explained that the tutorial should leave a profit of about \$30K-\$50K, with \$30K being the break even and \$50K being a more likely level, with about \$10K or so profit. The surplus at 750 attendees is in the neighborhood of \$45-\$50K and goes higher with more attendees. Also not appearing in the budget is a \$12K (US) contribution from the National Science Board of Singapore for a special speaker session they are going to sponsor.



IEEE

COUNCIL ON NEURAL NETWORKS



Robert J. Marks II
President

2-4-91

PLEASE REPLY TO:
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Seattle, WA 98195 USA
Tel.: (206) 543-6990
Fax: (206) 543-3840
marks@blake.acs.washington.edu

Dr. Paul J. Werbos, President
International Neural Network Society
Program Director
Neuroengineering
Room 1134
Division of Emerging Technologies
National Science Foundation
Washington, D.C. 20550

Dear Dr. Werbos,


I have been directed by the AdCom of the *IEEE Neural Networks Council* (NNC) to announce to you cancellation of the Agreement between the Council and the *International Neural Network Society* (INNS) immediately after the 1992 Baltimore IJCNN. I hereby do so. This cancellation is made in accordance with Article 14 of the Agreement between our two organizations which states, in part,

This agreement can be canceled upon written notification of either organization to the President of the other organization. The President of the INNS and the President of the NNC shall have the responsibility of settling any unfinished business already initiated as a result of this document. In the event of dissolution, each society shall honor its previously approved budgets. Upon cancellation, both organizations agree to not use the conference name "International Joint Conference on Neural Networks" or the initials "IJCNN." The NNC reserves the exclusive right to use the conference name "International Conference on Neural Networks". The INNS reserves the exclusive right to use the conference name "INNS Annual Meeting."

The IJCNN's, as you know, are currently the largest and most successful conferences on neural networks in the world. Nevertheless, the Council feels that due, in part, to our broadening focus of interests, a dissolution of the Agreement is required. This dissolution, however, still leaves open the possibility that the NNC and INNS can work together on other projects, including future jointly sponsored IJCNN's.

I will be contacting you shortly to arrange procedures for the settling of unfinished business already initiated as a result of the Agreement. The Council intends to remain flexible in the process of these negotiations.

Sincerely,



Robert J. Marks II, President
IEEE Council on Neural Networks

cc: IEEE NNC AdCom
Laura Jobmann, IEEE Conference Services

IEEE NNC Meetings Committee
Roy S. Nutter, IOC Chair

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

Attachment #6. Hassoun's review of Simpson's review:

November 4, 1991

Patrick K. Simpson, Chief Engineer
Accurate Automation Corporation
1548 Riverside Drive, Suite B
Chattanooga, TN 37407
Tel. (615) 622-4642

Dear Pat:

I have received your book review manuscript of Neural Networks and Fuzzy Systems: A Dynamical Systems Approach to Machine Intelligence, Bart Kosko (Englewood Cliffs, NJ 1992). Your review is very thorough and careful. However, it is unusually lengthy for the purpose of publishing in the *IEEE Transactions on Neural Networks*. I would like to work with you on condensing your manuscript so that it would not occupy more than three Transaction's pages but without compromising its thoroughness.

Attached is a list of comments and corrections. The comments point out sections/parts of the manuscript which may be condensed, summarized, or deleted. Some of these comments point to positive aspects of the book (which according to your review are interesting contributions) and suggests that they be restated a bit more strongly so as to give your review a fair balance. Yet, other comments deal with style, misprints, etc.

I thank you again Pat for your valuable contribution to the Transactions and I hope you find my comments useful.

very truly yours,

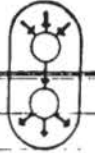
Mohamad H. Hassoun
Associate Professor

Encls.

Editor's Comments

1. Your manuscript should be reduced to at most 16 double spaced pages. This would require substantial condensation of material. You might want to condense some of the quotations as well as eliminate some details. Other suggestions are offered below.
2. The reference list is too long. Try to eliminate most references except for few (around 5) which are critical to the review.
3. I suggest that you do without the example (and figure 1) you present on page 4.
4. Condense the material on pages 5 and 6. The main points made in the last sentence of the top paragraph on page 5. The first sentence of the second paragraph on page 5, and the last sentence of the second paragraph on page 6 may be retained with slight editing in order to convey your points.
5. You may want to eliminate the quotation on the top of page 7.
6. Condense the second paragraph on page 7 and the first one on page 8.
7. I did not see a major draw back by the author emphasizing a two-layer architecture in the book. You may still want to make this point but briefly (refer to the second paragraph on page 9 and the top of page 10).
8. There are other researchers who have looked at higher-performance BAMs. In addition to the references you gave on page 11, you might want to check our group's work here at Wayne State University (see attached paper "Dynamic Heteroassociative Neural Memories" by M. H. Hassoun which appeared in *Neural Networks*, Vol. 2(4), 1989). You may want to consider mention researcher's names but give no references here.
9. Can you do without the last issue you raise relating to chapter 6? (refer to the bottom of page 19 and the top of page 20).
10. In general, you might want to consider a stronger reinforcement of the positive points of the book which you have already identified in your review (eg., the top of page 23).
11. Your summary does not evaluate the book as a graduate/upper-division textbook.
12. Page 5: "[N]eural ..." should read "... neuronal ..."
13. Page 7, line 14: "Encoding is described is delineated .." should read "Encoding is described ..."
14. Page 11, line 11: change "an" to "a".
15. Page 15, line 8: change "theorists" to "enthusiasts".
16. Page 16, line 5: "... that have not been discussed." should read "... that we have not discussed."
17. Page 17, 2nd line from bottom: change "... in terms an algorithm ..." to "in terms of an algorithm ..."
18. Page 18, line 15: change "becomes" to "because".
19. Page 22: check the page number of quotations (pg. 308 is not correct).

Attachment #7: Hassoun's attempt to compromise with
Kosko.



TRANSACTIONS ON NEURAL NETWORKS

Mohamad H. Hassoun
Associate Editor

PLEASE REPLY TO:
Wayne State University
Department of Electrical
and Computer Engineering
3100 Engineering Department
Detroit, MI 48202 USA
Tel: (313) 577-3966

November 19, 1991

Professor Bart Kosko
Department of Electrical Engineering-Systems
University of South California
University Park,
Los Angeles, CA 90089-2564

Dear Professor Kosko:

This letter is in response to your earlier concern (your letter of November 5 and our telephone conversation that same day) about the objectivity of Mr. Pat Simpson of Accurate Automation Corporation in reviewing your recent book "Neural Networks and Fuzzy Systems," published by Prentice Hall.

On November 4, 1991, one day before your call/letter of November 5, I had already asked Pat to revise a first draft of his review to the above book. Today, I have received a second version of Pat's manuscript which I am enclosing for your information and comments.

Based on what you have raised in your letter of November 5, I have decided to give you a chance to respond to Pat's review of your book before such review is published in the IEEE Transactions on Neural Networks. I will carefully go over your comments and evaluate Mr. Simpson's review. If you agree, I will also send your comments to Mr. Simpson so as he can fine tune his review and make it more objective and accurate if necessary.

I would also like to publish a second review of your book (in the same issue featuring Mr. Simpson's review, when accepted). And here, I would like to ask you to send me names and addresses (also e-mail if possible) of three potential reviewers who you think can serve as objective reviewers of your book. I will choose one of these people and ask him/her to review your book.

I feel that the above suggestions are fair to you and to Mr. Simpson, under the current situation. I also hope that you agree to these suggestions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Mohamad H. Hassoun'.

Mohamad H. Hassoun

Encls.

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

Attachment #8. Sheldon Teitelbaum, "Making things perfectly fuzzy", Los Angeles Times Magazine, April 1, 1990.

Los Angeles Times Magazine

Vol. VI No. 13

APRIL 1, 1990



Robert Beck / Allsport USA

FEATURES

THE \$16-MILLION QUESTION MARK

BY DIANE K. SHAN

12

The only guarantee in the Angels' deal with pitcher Mark Langston is that he'll get \$16 million during the next five years. Everything else is uncertain: whether he'll win, whether he'll stay healthy and whether this relatively untested 29-year-old left-hander can help them satisfy their 30-year hunger for a pennant.

MAKING EVERYTHING PERFECTLY FUZZY

BY SHELDON TEITELBAUM

24

Bart Kosko, a maverick USC electrical engineer, wants to change the way Western scientists—and the computers they design—think. The key, he believes, is to reject absolutes and embrace ambiguity with a theory called fuzziness.

MEN'S SPRING FASHION

EASY DOES IT

BY BARBARA FOLEY

28

Gone is the rigid silhouette of past seasons. Menswear this spring is softer and looser, with ventless jackets and plated pants.

SHADES OF GRAY

BY SUSAN CHAMBERLIN

36

Plants in soft silvers, pewters and steels fill a striking beachfront garden.

DEPARTMENTS

LETTERS

8

JACK SMITH

9

Being unable to operate a telephone-answering machine or a VCR is probably an act of protest.

PRIVATE LIVES

10

It'd be nice to be always right. So, Margo Kaufman is looking for a male ego.



Bobby Heston

HEALTH

39

Insufficient information about infertility treatments.

CURRENTS

40

A new idea in boutiques: a store that sells clothing, jewelry, beds and cakes for dogs and cats.

PUZZLER

48

(April) First Thing.

COVER

Photograph by
Iris Schneider/Los
Angeles Times.
Story on Page 12.

MAKING EVERYTHING PERFECTLY

FUZZY

FROM THE UPSTAIRS PORCH window of his split-level house in the Puente Hills, Bart Kosko enjoys a view of the largest Buddhist temple in the Western Hemisphere. Others can keep their manicured lawns, swimming pools, hot tubs, nearby golf courses and sundry suburban amenities. For Kosko, a 30-year-old assistant professor of electrical engineering at USC, it is enough to be able to gaze at one of the few buildings in the country where his concept of reality would not be denounced as scientific heresy, as well as an affront to common sense.

"You have to have a great belief in the truth of your own statements," says Kosko, whose mathematical ideas continue to encounter resistance and outrage from the scientific community in this country despite their widespread acceptance and application in Asia. "You may have stumbled, humbly, upon a universal truth, but if the world, everyone from Aristotle to Bertrand Russell, says you're wrong, it takes immense ego not to agree with them."

The universal truth to which he refers is called fuzziness. Developed by Polish mathematician Jan Lukasiewicz during the 1920s and expanded (and named) 40 years later by UC Berkeley computer scientist Lotfi A. Zadeh, fuzziness refutes the traditional Aristotelian theory of absolutes, arguing that the world is full of things that defy categorization by Western logic, things whose definitions are a little fuzzy. Its applications are, among other things, revolutionizing the computer world by creating systems of machine intelligence that compute in terms of humanlike reasoning.

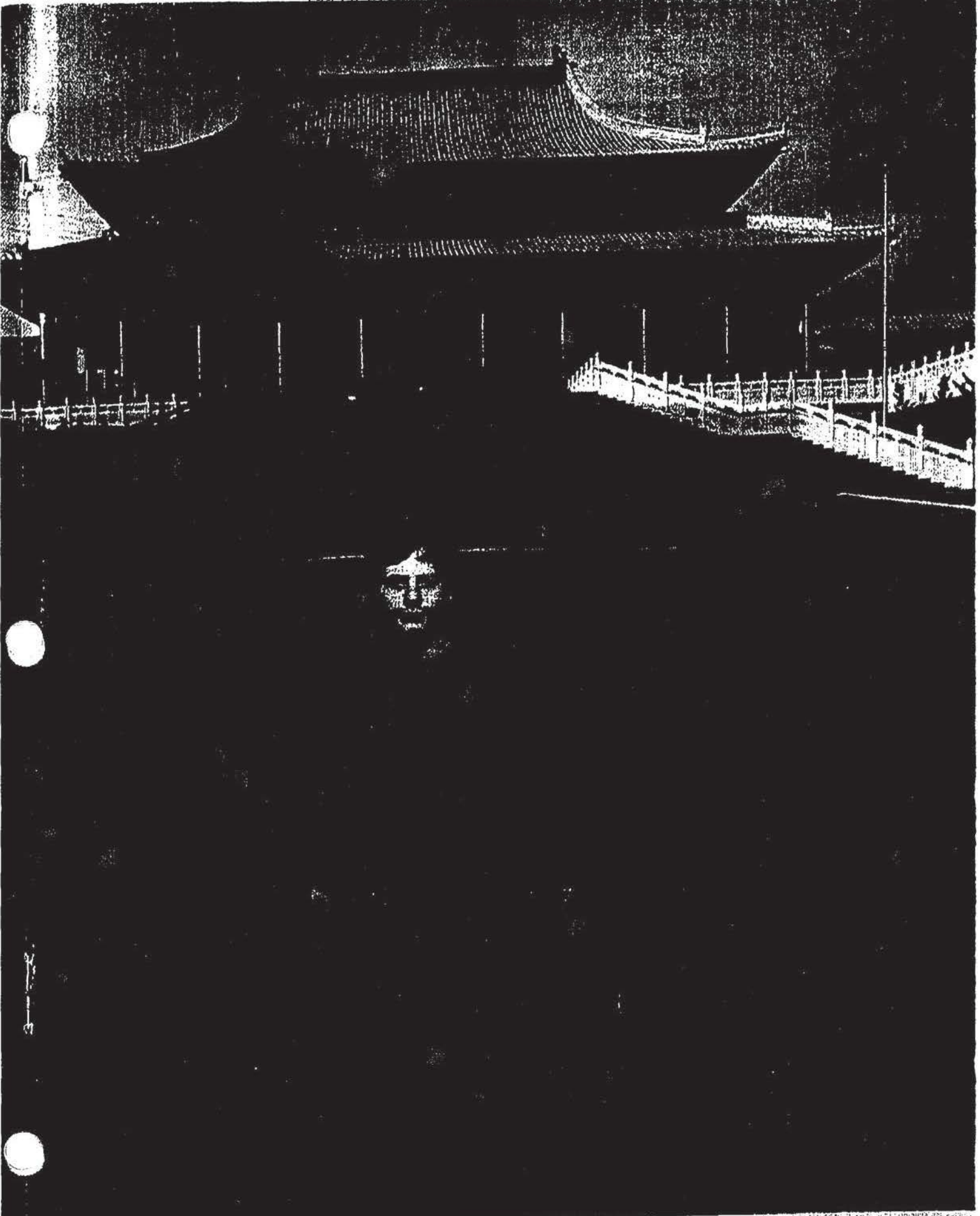
Kosko, a Zadeh protege, is the veritable St. Paul of Fuzziness.

The American scientific community does not always take kindly to his devotions, however. Telling a modern scientist that there can be logic without Aristotelian tenets is like telling a Catholic there can be Christianity without Christ—some scientists have apoplectic fits at the mention of Kosko's name. Yet in this time of technological competition with the East, Japanese and Chinese scientists embrace fuzziness; with its acceptance of universal ambiguity, fuzziness is the mathematical equivalent of Taoism and Zen Buddhism. In Japan, especially, Kosko is the Carl Sagan of fuzzy technology. Indeed, as many Western scientists begin rethinking Kosko, this mathematical doctrine may force the first actual confrontation, and eventually a melding, of Eastern and Western philosophical and scientific ideology.

Kosko is, in essence, the quintessential scientific cyberpunk—a hip, street-smart prophet

**Invoking Asian
Thinking, USC's
Bart Kosko
Argues That the
World is Far More
Ambiguous Than
Aristotle Ever
Imagined**

BY SHELDON TEITELBAUM



of life in the Information Age. He's also a musician, an essayist, a screenwriter—and a pugnacious sort. He just may be able to pull it off.

ZADEH EXPERIENCED his first flash of fuzzy revelation in a hotel bed; Kosko did his mentor one better—he worked out key facets of the geometry of fuzziness while soaking in the hot tub behind his house.

The hot tub is a fitting place for lambasting Aristotle. The baths were an ideal setting for ancient Greeks to debate the merits of the philosopher's world view. In his hot tub, Kosko contemplates his longstanding frustration with the way those theories continue to prejudice Western imagination. Aristotle, Kosko says, was just too rigid in his thinking.

"Aristotle was never one to split hairs," he explains. "He believed you were either hairy or you weren't. If I were inclined to start plucking my own—which I'm not—I would eventually pull out the one hair that he would have argued separates hairy people from non-hairy people. Say that hair is number 5,000. With it, I'm hairy. Without it, I'm not."

In science, Kosko says, this absurd yet inviolable rule—that everything must fit one category or another at all times—is called the Law of the Excluded Middle. In it, there can be no shades of gray, no concepts such as "partly" or "mostly."

"We've all been conditioned to behave as if this was true," Kosko says. "But it isn't—not in the real world. These binary assumptions offer a handy first approximation of reality. But sooner or later they break down."

Computers, symbols of pure logic, offer a good illustration of the difference between fuzzy and non-fuzzy thinking. Non-fuzzy computers, the technological epitome of Western thought, rely entirely on binary thinking. Everything they do is the result of combining ones and zeroes with *and*, *or* and *not*. The only thing programmed into the system is yes or no, categories of equality and inequality, and

that's all that will come out.

A traditional computer would have difficulties accommodating the concept of a platypus, for example, because it is an animal that is and is not, in equal measure, a mammal. Faced with this peculiar creature, the computer, like Western thought, is reduced to spinning its figurative gears. It simply cannot grapple with a world in which reality does not come prepackaged in crisp binary packages.

Western scientists have tried to account for inherent ambiguities of the universe with probability theory—the mathematical expression of the chance that a specific event will or will not occur. It usually takes the form of a number between one and zero. In the case of a set of tall people, for instance, individuals always would be categorized as tall or short. But a 5-foot-tall person might be

described as having a 50% probability of belonging to the set, a 6-footer 90% and a 7-footer 100%. In other words, probability reflects the statistical averages of the population—50% are below 5 feet, 90% are shorter than 6 feet and 99% are shorter than 7.

Probability works with large statistical populations, Kosko says, but is incapable of dealing with most individual situations.

"It assumes the world is black or white," Kosko says, "but it's never sure which one. There's uncertainty in fuzziness, too, but it's deterministic uncertainty."

Fuzziness, he says, measures the degree to which an event occurs. In other words, it models reality, basically providing a shortcut that probability cannot.

A computer programmed with fuzzy chips can deal with degrees. It may, for instance, be drizzling slightly outside. A fuzzy computer chip will not try to categorize it as raining or not because it relies on a user-defined alphabet of functions rather than the usual ones and zeros. It can compute variations of measurement from light to heavy, small to large or slow to fast.

An ordinary air conditioner, for instance, kicks in when it senses the environment is either too hot or too cold. It either will begin blasting at full power or shut down. But this isn't efficient or

conducive to maintaining maximum levels of comfort. A fuzzy air conditioner, however, would be able to identify the more-comfortable temperature ranges. Instead of shutting down, the fuzzy air conditioner would taper off its activities as the area being cooled became more comfortable.

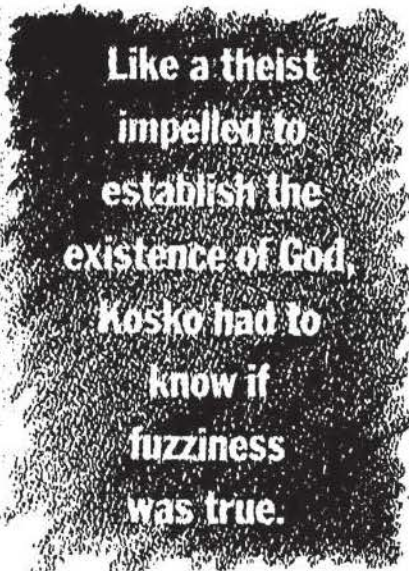
So when a fuzzy computer is charged with control functions such as, say, docking a space shuttle with a space station, these translate into a smoothness of performance in control systems that cannot be replicated otherwise.

Although many of Kosko's theories revolve around computer applications, he has dozens of everyday examples to explain the difference between fuzziness and probability: Whether or not an article is published, to use one of his favorites, is a matter of probability. The degree to which it is published—it may or may not have been heavily edited—is one of fuzziness. Or suppose, he says, there is a 50% chance that there is an apple in your refrigerator. That is probability. But what if there is half an apple in the refrigerator? That half an apple has a 50% degree of membership in the set of whole apples. Numerically, these two situations are equivalent. Physically, however, they are distinct.

KOSKO HIMSELF embodies the fuzzy idea of many things concealed in one. A former farm boy who escaped the Midwest on a full music scholarship to USC in 1978, Kosko straddles the disparate, and often antagonistic, cultures of science and art. As a neural networks expert and a fuzzy theorist, he has organized several important international conferences and is about to publish the first college textbook about neural networks—computer systems that emulate an organism's ability to learn by experience. NASA uses him as a consultant on the space shuttle, as did the Strategic Defense Initiative Office. Outside the realm of science, Kosko is an accomplished composer who scores his own videotaped lectures and a published writer and essayist. Currently, he is collaborating with Bill Gray, co-writer of "The Philadelphia Experiment," on a science-fiction screenplay.

"I realize that many people within academia frown upon my outside pursuits," Kosko says. "I suppose they view it as a dissipation of energy. I see it as a stimulant. I have a lot of energy."

Kosko is a "bewildering combination of talents," says Marvin Minsky, an artificial intelligence pioneer at MIT. George Klir, editor of the prestigious Intern-



Like a theist
impelled to
establish the
existence of God,
Kosko had to
know if
fuzziness
was true.

tional Journal of General Systems
to publish Kosko's latest paper, which
details the theorems proving fuzziness)
calls Kosko's mathematical ideas "quite
profound." And Zadeh, his mentor, calls
him "one of the most unusual and most
highly gifted individuals I have ever met."

Beneath it all lies obduracy that pre-
vents Kosko from ever backing down from
a fight. Bart Kosko is cocky and tenacious
and driven by the belief that time is the
enemy of all things. And to keep up with
the exponential rate of change engulfing
the world, he is prepared to do without
sleep—Kosko puts in a mere four hours of
sack time nightly. Uncharacteristically for
one so young, Kosko feels the clock ticking
deep in his gut.

Kosko grew up in a largely Slavic,
working-class Kansas City neighborhood
called Strawberry Hill. His childhood
was an odd mixture of "Little House on
the Prairie" and the "Lord of the Flies."
The woods behind his house were great
for woodcraft, hunting and trapping and
amateur rocketry. But they were also the
scenes of sometimes vicious BB gun,
wrist-rocket and Molotov cocktail bat-
tles between warring neighborhood kids.
Bart, his friends recall, could always be
found in the front lines.

"Bart was the most passionate person I
ever met," recalls childhood friend Kevin
Helliker, an author and journalist who
lived two houses down from him as a boy.
"Our sense of the Koskos was that they
had more fun than anybody."

That changed tragically in Bart's 10th
year, when their house burned down be-
cause of an electrical short. A few months
later, Bart's father, a building contractor,
was killed in a car accident.

"All kids have a keen sense of what's
fair and not," Helliker says. "But Bart
had this tremendous, inborn outrage at
injustice. That outrage only increased
after the death of his father."

The financially strapped Koskos
moved to a farm near Lansing, Kan.,
where Bart threw himself into a variety
of pastimes to escape his loneliness and
anger. He gobbled up books on science,
philosophy, literature, art and politics.
Along with improving his karate, he
taught himself how to play the mandolin,
guitar, balalaika and piano. His friends
never knew of his musical acumen until
they read in the newspapers that he had
won a national Young Composers Con-
test. Then in 1977, he won a full scholar-
ship to USC, having composed an or-
chestral overture to "The Count of
Monte Cristo" in high school.

As an undergraduate at USC, Kosko
decided to supplement his income by
writing for pay. Learning that the mon's

What motivates Kosko? "You have to
understand that Bart is indignant over
the ultimate imminence of his own
death," says Helliker in an attempt to
analyze his friend's drive to succeed in so
many areas. "Last year, when we spent
some time together, he advised me al-
most daily to reflect on the fact that the
coroner would be cutting out my guts
sooner than I imagine. Death was never
far off—it should be stared in the face on
a daily basis, he said, to remind us we
don't have time to waste."

Kosko agrees that he views "with
dread" the prospect of his own demise.
Mortality is, in fact, what makes Bart run
as if someone—or something—were
chasing him.

KOSKO'S STAY at the USC
School of Music was
short-lived. Although he
had passed his graduate
placement exams, he and
the school differed over what he should
be studying. "I just hated atonal music,"



Bart Kosko in the hot tub, where he challenges Aristotle
and thought up his Rubik's cube model of fuzziness.

he says.

Kosko kept his scholarship for a year,
but he was strongly urged to find another
major. He chose philosophy and eco-
nomics, eventually becoming a fan of free
market economist Milton Friedman and
a campus libertarian activist. But he soon
ran into conceptual difficulties that
might not have fazed his fellow students.

"In philosophy," he explains, "one
does logic. But the Aristotelian theories

years. That is never symptomatic of a
healthy theory.

"I eventually abandoned philosophy
because I felt that there was no room in
academia for philosophers in the classical
sense that Kant, Aristotle, Hume and
Descartes had been. They had done their
best to master all the science and mathe-
matics of their day. In many cases they
actually contributed to it. I began check-
ing out math books." Kosko went on, in
fact, to secure a master's degree in mathe-
matics and a Ph.D. in electrical engi-
neering, which he viewed as a field in
which most of his scientific interests con-
verged.

Kosko's fuzzy road to Damascus ran
through Austin, Tex., where he met Za-
deh at an artificial intelligence confer-
ence in 1984. A year before that, he first
saw the word *fuzzy* in a scientific paper.
Kosko recalls being struck by revelatory
wonder. "This really seemed to tie to-
gether many of my concerns," he recalls.

At the conference, Zadeh was fiercely
attacked for his ideas. Kosko, a young
graduate student, without a doctorate
much less professional standing, stood in

front of a room filled
with the Pharisees of
the scientific com-
munity and mounted
an impassioned de-
fense of a concept of
fuzziness, although
the mathematical
questions had not
been asked or an-
swered. (Two years
later at another con-
ference, this same
fervor would induce
one scientist to bang
on a table in Krus-
chevian fury, yelling
that "a set is a set is a
set.") Zadeh was im-
pressed. Immediately
afterward, Kosko
railed Zadeh a theo-
rem supporting fuzz-
iness. Zadeh eventu-
ally became Kosko's
thesis advisor.

A year later, Kosko attended another
conference at which a well-known prob-
abilist insisted publicly, and almost per-
suasively, that Zadeh was violating some
inherent law of nature with his theories.

"I remember a chill going through the
audience," recounts Kosko. "I suddenly
had the sinking feeling that maybe there
really is no fool like an old fool. At that
point, I decided I had to know definitive-

Continued on Page 41

Fuzzy

Continued from Page 27

ly if fuzziness was true. I was like a theist impelled to establish the existence of God. If it were so, I'd become a priest. If not, I'd be the biggest atheist that ever lived."

After conscientious deliberation and much back-to-the-basics mathematical formulation, Kosko eventually decided in favor of fuzziness. His dedication marked him as both maverick and dangerous iconoclast. Notoriety came during the mid-'80s, when he began to vigorously champion neural networks. Now an accepted part of the computer world, they were as scientifically *outré* then as fuzziness is now.

IN ADDITION TO being its prophet, Kosko has made a unique contribution to fuzzy set theory. He geometrized fuzziness, gave it concrete form and functionality, just as Einstein geometrized space and time.

Kosko pictures the set of fuzzy sets as a Rubik's cube. Each set becomes a point in the cube. Conventional sets occupy the corners of the cube with fuzzy sets occupying the rest of the cube. Each element

in the fuzzy sets belongs to the set to a different degree. The farther the set is from the corner, the more it resembles its own opposite. At the midpoint, the set equals its own opposite. That's where the world's classical paradoxes reside, Kosko says. The points within the cube model ambiguity. Once within the cube, he says, we can accept and understand the paradoxes and ambiguities of life.

Kosko calls this "the black hole of set theory, where a thing can be its own opposite." Here, for instance, you will find the proverbial cup that is half empty and half full, the Taoist concept of yin yang, the liar from Crete who said all Cretans are liars, Bertrand Russell's set of all sets that are not members of themselves, and Russell's barber.

Russell's barber, Kosko explains, is a bewhiskered man who lives in a town and who shaves a man if and only if he does not shave himself. So who, one might ask, shaves the barber? If he shaves himself, by definition he does not. But if he doesn't, he does.

This kind of speculation is enough to drive most Westerners crazy, and according to the annals of mathematical history, many have despaired over resolving such enigmas. But, Kosko says, despair only sets in if one rigidly ascribes

to an arbitrary insistence on bivalence. People in the Far East, he says, would not likely fall into such a trap. In societies where Buddhism is common, such as Japan—which he visits frequently as consultant, conference organizer and general representative of what many Japanese corporations consider the future of technology—the idea of a thing containing its own opposite is not hard to accept. It may, in fact, be a characteristic of mature civilizations that they are simply more capable of recognizing fundamental limits in man's ability to know the real world.

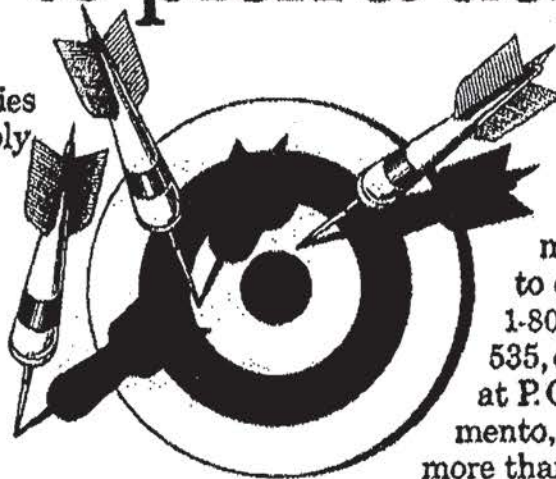
"In the end," he says, "the insistence on either/or interpretations of reality, which Western science relies upon, is merely a cultural preference."

Fuzzy proponents believe that fuzzy thinking may hold the key to the development of the kind of artificial intelligence suggested by HAL, the computer in Stanley Kubrick's film, "2001: A Space Odyssey." Katsushige Mita, president of Hitachi Ltd. and chairman of the board of LIFE, Japan's new Laboratory for International Fuzzy Engineering Research (which is funded by the Ministry of International Trade and Industry and more than 45 of Japan's largest high-tech corporations), believes that "fuzzy

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-Attachment #9. Kosko letter to Parker.

SCHOOL OF ENGINEERING
DEPARTMENT OF ELECTRICAL ENGINEERING-SYSTEMS



21 December 1988

David Parker
925 Oak Lane #4
Menlo Park, CA 94025

Dear David:

Recently Mark Gluck gave me a copy of your joint paper, "Some Biological Implications of a Differential-Hebbian Learning Rule," appearing in volume 16 of Psychobiology. It was a good paper, especially the pulse-coding interpretation of neuronal signals.

Having introduced the differential Hebb law in 1985, and having given it its "differential Hebb" name in the 1986 Snowbird AIP proceedings, I was surprised that none of these papers, which you requested last summer, were cited, and that, still, you used the term "differential Hebb" throughout the paper, beginning with the title. How could you do that?

Let me remind you of the relevant documentation. I introduced the differential Hebb law, and studied it mathematically, in the June 1985 monograph, "Adaptive Inference." In September 1985, with John Limm, I published an optical implementation in volume 579 of the SPIE proceedings. Harry Klopf, who independently arrived at a discrete form of the differential Hebb law, first published his drive reinforcement theory, as he called it, which includes the law, in the same 1986 AIP proceedings in which my "Differential Hebbian Learning" appeared. Harry and I then each published separate further accounts in the 1987 ICNN proceedings. As your paper indicates, Harry has always referred to the law as the "drive reinforcement model," never as the "differential Hebb" law. Moreover, the 1988 Psychobiology article of Harry's, to which your article is in response, explicitly references my independent derivation of the law and cites my 1986 paper. (Indeed, in Harry's first draft of the paper, he also cites my September 1985 paper.) I published further stability results on the law in my ICNN-88 proceedings paper. I sent you a copy before ICNN-88 occurred in July.

I am disappointed, not just because I have considered you a friend, but because, like so many others in the field, after your careful public clarification of who derived backpropagation when, I have considered you a paragon of intellectual honesty.

Sincerely,



Bart Kosko

cc: M. Gluck
S. Grossberg
R. Hecht-Nielsen

H. Klopf
R. Thompson
B. Widrow

Attachment #10. 'Personality conflict' with someone you
haven't met.

>From Hassoun Wed Jan 15 15:08:34 1992
To: kosko@sipi.usc.edu
Subject: Book Review
Cc: hassoun

Dear Bart:

I am still working with Bob Marks II, IEEE Transactions on Neural Networks Editor-in-Chief on Pat's review of your book trying to determine whether we should accept it for publication or not. We are looking very carefully at all the material we have received from both you and Pat.

Bob Marks have also decided to send Pat's review of your book to two experts in fuzzy systems and neural networks for their comments on the objectivity of the review. No final decision have been made yet. Feel free to contact Bob Marks for further development. I will also be available to answer your questions if you desire.

Sincerely,

M. Hassoun

{Mail}& 39

Message 39:

>From kosko@sipi.usc.edu@usc.edu Wed Jan 15 19:02:49 1992
To: hassoun@brain.eng.wayne.edu
Subject: Simpson book review

Dear Mohamad:

I am disappointed to learn that Bob Marks will make the decision on Pat Simpson's book review and not you. As I am sure he has told you, he and I also have an unfortunate personality conflict. I can't believe he would do this in light of it. This is all very unjust and unnecessary. Why cannot you simply get an impartial third party to review both books? This strikes me as systematic career sabotage and I will not stand for it. I urge you to use your conscience and good judgement in this matter.

Sincerely,

Bart Kosko

Attachment #11. Simpson's review of Kosko's book.

Book Reviews

price
ISBN 0-13-611435-0

pls provide price + ISBN Number

Neural Networks and Fuzzy Systems: A Dynamical Systems Approach to Machine Intelligence—Bart Kosko (Englewood Cliffs, NJ: Prentice-Hall, 1992). *Reviewed by Patrick K. Simpson.*

I. INTRODUCTION

Neural Networks and Fuzzy System: A Dynamical Systems Approach to Machine Intelligence is a textbook that combines the subjects of neural networks and fuzzy systems under one cover. The book is 449 pages long and includes two forewords, a preface, 11 chapters, an appendix, an index, and a diskette with software. The book is organized into two parts, which are preceded by an introductory chapter. The first part, which comprises chapters 2 through 6, covers neural network theory; the second part spans chapters 7 through 11 and covers adaptive fuzzy systems. All of the chapters are followed by a set of references, most of the chapters are followed with a set of problems, and some of the chapters also include a set of software exercises.

This book is primarily a collection of papers by the author that have been augmented and placed into a book. Chapters 3, 4, 6, 7, 8, 9, 10, and 11 contain large amounts of previously published work that has been updated and rewritten to provide continuity. The last three chapters are coauthored with either Seong-Gon Kong or Peter Pacini. The software was provided by Olmstead & Watkins, Hyperlogic, and Togai Infralogic.

The objective of this book is stated in the preface (p. xxv): "This textbook presents neural networks and fuzzy theory from a unified engineering perspective." The preface goes on to describe the level of the audience that this book addresses: "The basic theory uses only elementary calculus, linear algebra, and probability as found in upper-division undergraduate curricula in engineering and science. Some applications use more advanced techniques from digital signal processing, random processes, and estimation and control theory." Clearly from these introductory statements, this is a book that is primarily intended to be an upper-division or graduate-level engineering text.

A chapter-by-chapter review precedes the general comments and will emphasize areas of specific interest found within the book. The conclusion will state how well the book's objectives were met.

II. CHAPTER-BY-CHAPTER REVIEW

Chapter One—Neural Networks and Fuzzy Systems

The first chapter is a broad overview of both neural networks and fuzzy systems and serves as an introduction to the following two parts. The chapter opens with a clear delineation of the difference between neural and fuzzy processing (p. 3): "Neural network theory studies both pre-attentive and attentive processing of stimuli. This leaves unaddressed the higher cognitive functions involved in reasoning, decision making, planning and control." The remainder of the chapter explores these differences in greater detail by first discussing fuzzy systems, then neural networks, and finally the relationship between the two.

Fuzzy sets are introduced through the discussion of bivalent paradoxes; statements that can be both true and not true. Fuzzy



Fig. 1. A Fuzzy Set Membership Function for "young"

set membership functions and their corresponding operations are followed by a geometric interpretation of fuzzy sets as "points in a unit hypercube"—a fuzzy cube. The fuzzy cube is a representation of fuzzy sets that leverages the fact that most fuzzy membership functions are bound to the range [0,1]. By assigning each object in a fuzzy to a separate dimension of a unit hypercube, it is possible to represent a fuzzy set as a point.

Because it was difficult to understand exactly what the fuzzy cube represented, and because many of the results presented in the book are based upon the fuzzy cube, the following example is provided. A formal definition of the fuzzy set, A , is a collection of ordered pairs

$$A = \{x, m_A(x)\},$$

where x ranges over the entire universe of possible x values, and $m_A(x)$ is the membership value that describes the degree to which x belongs to the set A . Theoretically, the number of objects in the universe is considered to be infinite. But in practice, the number of x elements that belong to a fuzzy set is dependent on the application. Consider the fuzzy set membership function (Fig. 1) that describes young people. The range of ages (objects) for this fuzzy set is from newborn (0) to the oldest person on earth (let's assume it is 125). Employing the "fuzzy cube" representation of this fuzzy set requires that a fixed set of objects be preselected. Let's assume we select integer-valued ages (0, 1, 2, ..., 125) as objects. This results in a representation of the fuzzy set for "young people" within a 126 dimension unit cube. As this simple example demonstrates, the fuzzy set as a point in the unit hypercube is an approximation of a fuzzy set. How good the approximation is depends on knowledge of the underlying membership function. If the underlying membership function is not known "a priori," but rather learned by a neural network or some other equivalent technique, the use of the fuzzy cube as a means of representing a fuzzy set introduces even greater uncertainty than the data being represented.

The use of the fuzzy cube is not consistent throughout the book. The previous example was based upon the description found in chapter 7. An alternate use of the fuzzy cube is also presented in this chapter when the relationship between neural networks and fuzzy sets is explained (p. 7):

... neuronal signals range from some minimum value to some maximum value, say 0 to 1. ... The neuronal state space, the set of all possible neuronal outputs, equals the set of all n -dimensional fit vectors.

Unlike the earlier definition, where each dimension corresponds to a different object's membership value in a common fuzzy set, here each dimension represents a different fuzzy set's membership function

(neuron), and a common object (input) is applied to each membership function.

Several other perspectives of the relationship between neural networks and fuzzy systems as well as their synergistic combination can be found in both the neural and fuzzy literature. These alternate perspectives include using neural networks to learn membership functions, using neural networks to implement fuzzy rules, using fuzzy logic to postprocess neural network information, and using fuzzy rules to train neural networks. None of this work is recognized or comparatively examined with the views adopted in this book, making it difficult to determine its relative worth.

The fuzzy cube is also used to illustrate two fuzzy set measures: fuzzy entropy and fuzzy subsethood. Much of this discussion centers on the relationship of these measures to each other and to frequency-based probability.

Neural networks are introduced through the notion of the brain as a large dynamical system that can store information in fixed point attractors, limit cycles, and possibly even chaotic attractors. A taxonomy of neural networks is offered that organizes various neural networks using two ubiquitous attributes: encoding and decoding (learning and recall). Encoding is delineated as either unsupervised or supervised and decoding is classified as either feedforward or feedback. The reader who is not familiar with these attributes will not be able to fully appreciate the categorizations of various neural networks until the taxonomy is repeated in chapter 6. (The definitions of supervised and unsupervised learning are presented in chapter 4 (p. 114) and the definitions of feedforward and feedback networks are presented in chapter 6 (p. 221)). Later a second taxonomy is presented that organizes neural networks, fuzzy systems, and artificial intelligence systems as different types of model-free estimators.

The chapter concludes by briefly illustrating how a fuzzy rule base is used to control an inverted pendulum. Each fuzzy rule is stored in a separate fuzzy associative memory (FAM), thereby replacing the ~~fuzzy rule base with a "FAM bank."~~ It is not clear why a ~~large set of matrices (FAM's) is more beneficial than a small number of rules.~~

than
collection

Chapter Two—Neuronal Dynamics I: Activations and Signals

Chapter 2 is the first of the five neural network chapters in Part One (neural networks) and it sets the stage for later chapters by reviewing the book's nomenclature. One prominent theme that emerges is the insistence on describing all neural networks within a two-layer framework. The view taken throughout the book is that a large majority of neural networks are simply special cases of two-layer feedback neural networks, including Hopfield networks, the linear associative memory, the optimal linear associative memory, the Boltzmann machine, the brain-state-in-a-box, and all of the ART networks.

Following the introduction to terminology, neuronal activation dynamics are surveyed, including a wide variety of signal functions constructed from ratios, polynomials, exponentials, min functions, and max functions. One portion of the chapter done extremely well was the derivation of an approximation of the sigmoid function's derivative from pulse-coded signals.

Chapter Three—Neuronal Dynamics II: Activation Models

The chapter opens with a set of simple differential equations that obey Kirchhoff's conservation laws for voltage and current. These dynamical systems are presented and analyzed at their steady state to illustrate how membrane potentials in a neuron might be modeled. These systems evolve into additive feedback systems with one and two layers of neurons, and the end of the chapter culminates with an

articulate description of how feedback neural networks are used to address Grossberg's noise-saturation dilemma.

The majority of the chapter is dedicated to discrete-time bidirectional associative memories (BAM's), including explanations of learning, recall, stability, and storage capacity. The explanation of how Lyapunov energy functions are used to prove feedback neural network and dynamical system stability is very lucid. The inclusion and discussion of other BAM results would have been nice, specifically the multiple-encoding strategy developed by Wang and his University of California at Irvine colleagues that has demonstrated an increased storage capacity (cited but not discussed), the extension of the Ho-Kashyap technique to bidirectional associative memories that results in greatly improved storage capacity developed by Hassoun at Wayne State University, and the extensive empirical comparisons of the BAM and the discrete Hopfield model for first- and second-order correlation learning performed by Simpson. Chapter 4 has some additional discrete-time BAM analysis that might have been better placed in this chapter for continuity purposes.

The Hopfield model and the linear associative memory are also described in this chapter. Specific attention was called to the instability of the Hopfield model when asynchronous updates are not employed (p. 93): "in general, if more than one neuron changes state at a time, the Hopfield network is unstable." This strong statement lacked either a reference or a proof.

At the end of the chapter, the organization of chapters 3, 4, and 5 is delineated (p.103):

So far the synaptic connections have not changed with time, while the neuronal activations have changed with time. Such systems only recall stored patterns. They do not simultaneously learn new ones. In the next two chapters we study the dynamics of synapses that change with time—the dynamics of learning. Chapter 4 studies unsupervised learning. Chapter 5 studies supervised learning.

Two important exceptions to the above are learning vector quantization (chapter 4) and the back-propagation network (chapter 5), which do not learn and recall at the same time.

Chapter Four—Synaptic Dynamics I: Unsupervised Learning

After explaining the difference between supervised and unsupervised learning, four unsupervised learning laws are introduced and their relative merits are outlined. The learning laws are signal Hebbian learning, differential Hebbian learning, competitive learning, and differential competitive learning and their stochastic variants. Highlights include an extended discussion of correlation encoding within the framework of signal Hebbian learning; a mean-squared error quantization argument for competitive learning; an explanation of the mathematical relationship between drive-reinforcement learning, pulse-coded learning, and covariance learning all within the context of differential Hebbian learning; and a delineation of the similarities between adaptive delta modulation and differential competitive learning. The book misidentifies the learning vector quantization adaptation equations as those of the self-organizing feature map learning equations, overlooking the significance of the topological constraints necessary to form a self-organizing feature map.

A large portion of this chapter is dedicated to a detailed description of probability spaces and random processes. This material serves as the infrastructure for the later discussions of stochastic learning, stochastic equilibrium, and structural stability. Also, the introduction to measurability, Borel sets and sigma algebras lays the framework for later descriptions of the representation theorems associated with multilayer supervised learning neural networks.

Throughout this chapter, the exposition is highly mathematical, yet very clear and comprehensible. This is one of the stronger chapters

in the book. Of particular note is the notion of stochastic equilibrium that provides a rich new perspective on many unsupervised learning laws. Many fine researchers, including Zak, Salam, Michel, and Dimopolous, have reported a wide variety of results in the area of neural networks and dynamical systems. Recognizing and comparing these results with the work presented here would have further strengthened this chapter.

Chapter Five—Synaptic Dynamics II: Supervised Learning

Supervised learning is introduced from three different perspectives: operant conditioning, stochastic pattern learning, and stochastic approximation. Using the stochastic approximation framework, the perceptron, least mean square (LMS), and back-propagation algorithms are presented.

The derivation of the back-propagation algorithm is preceded by a description of the representation capabilities of multilayer neural networks with sigmoid functions (p. 199):

Some neural theorists misinterpreted the representation theorems. They claimed that the theorems proved that backpropagation could learn any (Borel measurable) function. They confused algorithm with architecture.

As this quote points out, it is the sigmoid activation functions embedded in the architecture that provides the representational capability, and learning algorithms such as back-propagation constitute only one of the many techniques for training such neural networks. Two versions of the back-propagation algorithm are presented, one for a three-layer neural network and one for a five-layer neural network. The back-propagation discussion concludes with a description of robust back-propagation and a brief list of other supervised learning neural networks. As the end of the chapter admits (p. 212), the description of only three supervised learning algorithms is far from comprehensive:

Most learning algorithms are supervised. The perceptron, LMS, and backpropagation algorithms represent prototypical supervised gradient-descent learning algorithms. There are many more that have not been discussed.

Some of the missing neural networks include popular pattern classification networks, among the cerebellum model arithmetic computer (CMAC), the probabilistic neural network (PNN), and the reduced Coulomb energy (RCE) networks, and a broad range of reinforcement learning algorithms that have become popular for control applications.

Chapter Six—Architectures and Equilibria

The taxonomy of neural networks presented earlier (chapter 1) is repeated with some accompanying definitions of terminology and brief explanations of some paradigms. The categorization of many neural networks in the taxonomy does not seem consistent. For example, the brain-state-in-a-box paradigm is a feedback neural network that uses the supervised learning LMS algorithm to adjust its connections, yet is listed as an unsupervised learning feedback network. Also, the Hopfield circuit, a neural network used primarily for neural optimization, is a feedback neural network that has its weights precomputed once prior to use—an example of the most extreme type of supervised learning, yet it is listed as an unsupervised learning feedback neural network. There are also several neural networks listed in the taxonomy that are not described with any detail in the book, such as Boltzmann learning (Boltzmann machine), ART-1, ART-2, ART-2', masking fields, reinforcement learning, self-organizing maps, and brain-state-in-a-box. Providing the appropriate references and a thorough description of each neural network would have greatly enhanced the taxonomy and possibly solidified the categories selected for each neural network.

The influence of noise in feedback neural networks and its effect on stability and convergence provide the focus of this chapter. Stochastic versions of previously described learning laws are created by including noise terms. To facilitate the discussion, the difference between convergence and stability is clarified. Convergence is the equilibration of synaptic coefficients (weights) and stability is equilibration of the neuronal activation values. Stochastic equilibration is defined as convergence to the noise process underlying the data feeding the system. There are three neural network paradigms presented within this stochastic framework: adaptive vector quantization (AVQ), adaptive BAM's, and random adaptive BAM's.

The AVQ algorithm (a generalization of the learning vector quantization) is expressed in terms of an algorithm that can employ any of three stochastic competitive learning laws: unsupervised competitive learning, supervised competitive learning, and differential competitive learning. The explanation of each learning law is followed by two theorems that describe the paradigm's stability: the AVQ centroid theorem (weight vectors converge to pattern cluster centroids) and the AVQ convergence theorem (convergence occurs quickly). There are two very important assumptions that are not clearly stated with these theorems: (1) the proper number of clusters must be known "a priori," and (2) each cluster must be correctly associated with a single pattern class.

The adaptive BAM is a two-layer feedback neural network that simultaneously learns and recalls. The equilibration of such a system is difficult to analyze because both neuron activations and synaptic coefficients are changing. In the spirit of Grossberg's stability-plasticity dilemma, this problem is aptly titled the stability-convergence dilemma. The adaptive BAM addresses this dilemma by proving equilibration using an extension of the Cohen-Grossberg theorem.

Higher-order, intrafield-connected, and differential Hebbian variants of the adaptive BAM are briefly explained. The intrafield-connected version of the BAM, the competitive adaptive BAM, is touted as being (p. 240) "topologically equivalent to adaptive resonance theory (ART) systems." Although this might be true for ART-1, it is certainly not true for such later versions of ART as ART-2, ART-3, and ARTMAP, which have more complex topologies that include sets of neurons for pattern normalization and pattern-match reset and for pattern association.

The random adaptive BAM (RABAM), a stochastic version of the adaptive BAM, is a neural network that learns and recalls patterns in noise in addition to being structurally stable. A structurally stable system is defined as a globally stable feedback system that can be perturbed but not shaken out of equilibrium. Following the definitions of RABAM learning and recall, several theorems are provided that delineate various qualities of this neural network, among them the RABAM stability theorem, the RABAM noise-suppression theorem, and the RABAM annealing theorem. Structural stability provides an important new perspective in the analysis of feedback neural networks corrupted by noise.

Chapter Seven—Fuzziness Versus Probability

This chapter begins Part Two of the book, which is dedicated to adaptive fuzzy systems. Many of the discussions of fuzzy sets found in the first chapter are repeated and refined, including the description of the fuzzy cube. Geometric proofs of subsethood, entropy, and set count are presented using the fuzzy cube. The relationship between conditional probabilities and fuzzy subsethood is further refined as well.

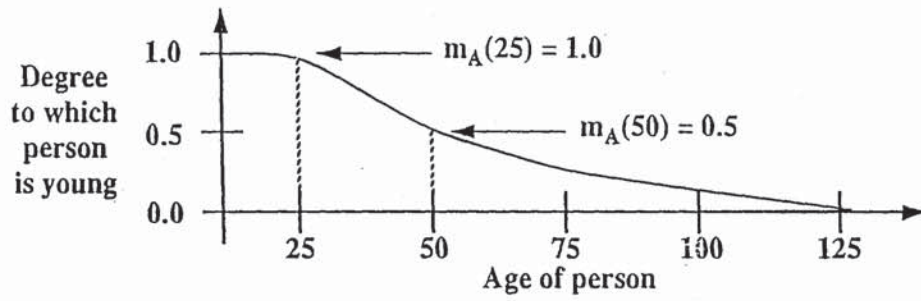
The comments made earlier (chapter 1) regarding this material still pertain: (1) the representation of a fuzzy set as a point in the unit hypercube is an approximation of a fuzzy set; (2) the relationship

and an alternative method of representing and learning fuzzy rules for fuzzy control applications.

This book is not a complete survey of either fuzzy systems or neural networks; rather it is a book that represents the views of a prolific researcher who has spent a great deal of time studying both neural and fuzzy systems. The views expressed in this book are often narrow and unsupported, but they are stated clearly and unequivocally.

As an upper-division undergraduate or graduate level textbook, it would serve well as a core text for a one-semester course on the dynamical systems approach to neural networks if it were suitably augmented with the appropriate literature representing the work of other prominent researchers in this field. This book is not sufficient for a complete neural networks course. The fuzzy system aspects of this text are not as well developed.

55%



7.5

Attachment #12. Review of Kosko's second book by
Williams.

- [4] J. L. McClelland and D. E. Rumelhart, Eds., *Parallel Distributed Processing. Volume 2: Psychological and Biological Models*. Cambridge, MA: MIT Press, 1986.
- [5] D. E. Rumelhart and J. L. McClelland, Eds., *Parallel Distributed Processing. Volume 1: Foundations*. Cambridge, MA: MIT Press, 1986.

Neural Networks for Signal Processing—Bart Kosko (Englewood Cliffs, NJ: Prentice-Hall, 1992, 399 pp., \$55.00).
Reviewed by Ronald J. Williams.

This book, intended to serve as a companion volume to Kosko's *Neural Networks and Fuzzy Systems*, is an edited collection of chapters authored by various members of the University of Southern California's Signal and Image Processing Institute and Center for Neural Engineering. There are nine chapters, grouped into three parts: Signal and Image Processing, Robotics and Control, and Electrical and Optical Neural Networks. A variety of specific subject areas and approaches are covered, representing the diversity of interests of the various contributors.

There is a clear intent that this book serve as a textbook for use by a "technical but interdisciplinary audience" reasonably familiar with signal processing and pattern recognition concepts and techniques. Relevant basic material from these fields is briefly reviewed in some of the chapters, and every chapter contains numerous exercises, some devoted to the particular artificial neural network (ANN) techniques discussed therein but others might just as easily be found in a more standard engineering text.

The first chapter, by Seong-Gon Kong and Bart Kosko, serves two functions. Much of it is devoted to providing a general review of a number of basic concepts in linear systems theory and statistical pattern recognition, only some of which is needed in this particular chapter, the rest presumably there to provide background material for some of the other chapters. In addition, it defines and compares the performance of several competitive learning algorithms elaborated upon by Kosko in the earlier book. The culmination of this chapter is a demonstration that *differential competitive learning (DCL)* outperforms two forms of *supervised competitive learning (SCL)* algorithms on an artificial 4-class problem and performs essentially as well on a 9-class phoneme recognition task, in spite of the fact that the SCL algorithms make use of pattern class information and DCL does not.

The second and third chapters consider two image-processing applications. In chapter 2, R. Chellappa, B. S. Manjunath, and T. Simchony describe techniques for segmenting images according to textural grouping that are based on the use of Markov random field models for the intensity and label processes. This formalization leads to the problem of trying to compute the maximum *a posteriori* probability label configuration, a difficult combinatorial optimization problem. Discussed here are several deterministic and stochastic relaxation techniques, including simulated annealing. Also considered is a novel hybrid scheme that alternates deterministic relaxation to equilibrium with a stochastic learning automaton approach in which the reward is based on whether the global energy decreases or not. Each step of this hybrid strategy begins with labels being selected according to the learned label probabilities. Experimental results given for the various techniques on two real images suggest that the quality of the final results obtained using this novel algorithm compare favorably with those obtained using more costly stochastic

relaxation algorithms, but unfortunately the authors give no details on its computational cost relative to these other algorithms.

Chapter 3, by Y. T. Zhou and R. Chellappa, examines ways to restore degraded images. This task is formalized using an image degradation model and the problem is once again to find an optimal fit given the data and the model. A Hopfield-Tank approach using a number of neurons equal to the product of the number of pixels and the number of gray levels, plus the use of stochastic updating to avoid local energy minima, is discussed as one possible approach, but a much less computationally costly variant, using deterministic updating, is also described and shown to perform very well.

The fourth chapter, by Jerry M. Mendel and Li-Xing Wang, reviews the concepts of *cumulants* and *polyspectra* and discusses how they can be used to estimate the coefficients of moving average (MA) stochastic processes from data. The advantage is that cumulants, which represent higher-order statistics, can be used for nonminimum phase MA processes, unlike the usual second-order statistics, and innovative computational methods based on the use of cumulants have recently been introduced. A specific ANN-style implementational strategy using multiplicative connections and a steepest-descent training algorithm is then introduced and simulations are presented.

In Chapter 5, Joachim Buhmann, Jörg Lange, Christoph von der Malsburg, Jan C. Vorbrüggen and Rolf P. Würtz describe an approach to handling object recognition, demonstrated on images of human faces. The techniques involved include the use of dynamic links for transformation invariance, Morlet wavelet transforms for image coding, and graph matching for the recognition process. In addition, this chapter discusses a parallel implementation of the overall algorithm using a Transputer network.

Chapter 6, by George A. Bekey, reviews a number of general ways that the robot control problem has been addressed, both with conventional approaches and with ANN techniques, in the latter case incorporating learning. Bekey raises the valid question of whether the kind of *tabula rasa* learning often used can scale up reasonably when there are many degrees of freedom, and proposes some specialized architectures that allow much faster learning. One of these involves the use of multiplicative connections and is shown to be appropriate for velocity-based inverse kinematic control. In this case there is one network whose outputs represent the inverse of an appropriate Jacobian matrix and these are used to gate a linear (in fact, identity) net. Simulations show that this approach learns much faster than when a standard backpropagation network is used. For inverse dynamics, a method is described and simulated that decomposes the dynamic equations into separate terms and uses a learning network together with differentiators to form the overall control system. Finally this approach is used to create a learning feedforward controller that operates in conjunction with a fixed feedback controller.

In Chapter 7, Sukhan Lee proposes a supervised learning architecture called a Gaussian potential function network, which is a form of radial basis function network using Gaussian functions with arbitrary means and covariance matrices as the basis functions and which is endowed with a learning algorithm that involves both gradient-descent parameter learning and constructive addition of new basis functions as needed. In addition, the network is capable of being inverted, so that an input pattern that maps to a given output pattern (and is also "best" according to some criterion), can be found; this technique is based on the use of a Lyapunov function. Unlike the other chapters, no applications are examined.

Chapter 8, by Bang W. Lee and Bing J. Sheu, discusses analog VLSI implementations of ANN's beginning with some technical semiconductor circuit-theoretic material and then going on to discuss Hopfield networks for A/D conversion and the incorporation of hardware annealing. Chapter 9, by B. Keith Jenkins and Armand R.

Tanguay, Jr., is devoted to issues surrounding optical implementations of neurocomputing strategies.

This book has been designed to serve as both a text and a vehicle for presenting some new research results. Every chapter contains both tutorial and new material, in varying proportions, and, as mentioned earlier, there are numerous end-of-chapter exercises. As a text it is probably most appropriate for two different audiences: those with training in a traditional engineering discipline who want to get a flavor of some ANN techniques and how they are integrated into the engineering approaches they already know, and those already familiar with ANN techniques who want (and are mathematically prepared) to delve a little more deeply into the relationship of what they already know to more standard engineering formalisms. Given the predominance of standard-engineering-text-style exercises, this latter group may represent its ideal audience.

On the other hand, its appeal as a text is limited by the fact that, like many edited multiauthor collections, the level of presentation is uneven in places, with a breadth of coverage more indicative of the range of interests of its several contributors than a good match to what most prospective students should reasonably be expected to master. Taken as a whole, its main value may be in accurately capturing the diversity of approaches currently under study in research designed to apply ANN techniques to challenging problems in robotics and signal and image processing, as well as research into ways of creating neurocomputing hardware.

Finally, it is probably also worth mentioning that while this book is billed as a companion volume to Kosko's *Neural Networks and Fuzzy Systems*, neither book relies on the other in any essential way. The only place in *Neural Networks for Signal Processing* where the specific competitive learning material unique to Kosko's approach is discussed is in Chapter 1, and the necessary definitions and concepts are given in sufficient detail there that one need not refer to that earlier book for them. The ANN techniques with which familiarity is sometimes assumed in the other chapters tend to be things like backpropagation and Hopfield nets, for which there are now numerous textbook-level treatments.

Neural Networks: Current Applications—P. G. J. Lisboa, Ed. (London: Chapman and Hall, 1992, 279 pp., softcover, \$59.95). *Reviewed by Lee A. Feldkamp.*

This book is a collection of thirteen chapters which span many neural network application areas. The editor has integrated the book with a common format and occasional forward referencing. The book is an effort to provide "an accelerated introduction to this fast developing field" and does not presume prior expertise in neural networks. Overall, the book is more descriptive than mathematical.

An introductory chapter discusses most of the networks employed later in the book, and the second chapter covers some of the same material from a different point of view. Chapters 3–11 discuss various application efforts, mostly in the form of simulations or off-line treatment of experimental data. Chapter 12 gives a glimpse of work toward and beyond the "bionic retina," and Chapter 13 provides concluding remarks and a list of application areas, including

references. The Appendix is a useful glossary of commonly used terms and phrases.

Chapter 1, "Introduction," was written by the editor, P. G. J. Lisboa, and provides a good overview of neural networks, starting with a brief discussion of biological neurons and proceeding to a descriptive treatment of Hopfield networks, multilayer perceptrons, Kohonen networks, and the method of temporal differences. As the reader will encounter these networks and methods in later chapters, even this brief discussion is valuable. I have, however, some minor quibbles. I regard the statement (p. 17) that multilayer perceptrons "perform best in classification tasks" as a little too categorical, in view of recent advances in the application of neural networks to control, which also refute the implication (p. 23) that backpropagation cannot be used to learn goal-directed functions, "where the outcome of each action performed by the network is not known until several steps later."

Chapter 2, "Neural network basics," by G. A. Works, is a short semitechnical introduction, written in the style of an advertising "white paper." The author presents the multilayer perceptron (MLP) in somewhat more detail than did Chapter 1, though no attempt is made to explain backpropagation. Lippmann's well known illustration of the pattern classification capabilities of MLP's with hard limiting nodes is reproduced. Unfortunately, the author ignores the fact that the situation is not so simple for softer nonlinearities, not to mention the admittedly arcane exceptions that have been noted even for the hard limiting case. Various paradigms (some of which are mentioned nowhere else in the book) are classified with respect to function, and several implementations (implicitly MLP) are compared to the speed and memory of the leech and the human brain. Interestingly, the leech here is rated about 1000 times better on both counts than in the DARPA Neural Network Study! The chapter concludes with very brief descriptions of a neural network classifier for explosives detection (deployed in some airports) and a demonstration system for vibration cancellation.

Chapter 3, "Using adaptive networks for resource allocation in changing environments," by T. M. Bell, W. R. Hutchison, and K. R. Stephens, provides an excellent description of the **problem** of resource allocation, but offers only a vague understanding of the **solution**. Parts of the chapter, especially Section 3.3, read like brochure material for a software product. The lack of detail is unfortunate, since I suspect that the methods that the authors are using are among the most powerful applied to date.

Chapter 4, "Medical risk assessment for insurance underwriting," by S. B. Ahuja and A. Hsiung, describes an approach to assessing the risk of death for prospective life insurance customers, based on information from medical documents and other sources. The content of the chapter relies heavily on the methods of traditional artificial intelligence. Connectionist ideas are incorporated to provide a way of linking "knowledge atoms" with weights that represent measures of belief and disbelief. A "spreading activation paradigm" is discussed, complete with a pair of discrete-time equations for the activation of nodes. Unfortunately, no indication is provided of the relevance of time in this context. At the time when this chapter was written, the authors were in the process of assembling data with which to test their ideas.

In Chapter 5, "Modelling chemical process systems via neural computation," N. V. Bhat, P. A. Minderman, Jr., T. McAvoy, and N. Sun Wang apply MLP networks to both steady-state and dynamic reaction processes. The authors begin with a short explanation of backpropagation, followed by a steady-state example. The authors next illustrate modelling the dynamic response of the pH in a stirred

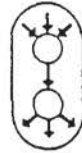
The reviewer is with the Research Laboratory, Ford Motor Company, Dearborn, MI 48124.

IEEE Log Number 9206768.

Attachment #13. Correspondence on stopping ICNN abuses.



NEURAL NETWORKS



January 3, 1990

Robert J. Marks II, President
IEEE Council on Neural Networks
University of Washington
Interactive Systems Design Laboratory
Dept. of Electrical Engineering, FT-10
Seattle, Washington 98195 USA
(206) 543-6990: FAX (206) 543-3842
marks@blake.acs.washington.edu

Professor Robert W. Newcomb, Chair
IJCNN Oversight Committee (IOC)
Microsystems Laboratory
Electrical Engineering Dept.
University of Maryland
College Park, MD 20742

Dear Bob,

The attached letter is the latest in a series of queries with regard to IJCNN support of session organizers and chairs. I, thus, will propose as an "ex officio" member of the IOC, the following motion:

"No session organizers or chairs attending IJCNN's shall be compensated for their travel in relation to performance of these duties."

Sincerely,

A handwritten signature in black ink, appearing to read 'R. Marks II'.

Robert J. Marks II, President
IEEE Council on Neural Networks

RJM:vbh

cc: Evangelia Tzanakou, ICONN Secretary
Bernie Widrow, INNS President



IEEE

TECHNICAL ACTIVITIES BOARD

TAB MEETINGS COMMITTEE
Dov Jaron, Chairman

PLEASE REPLY TO:
Biomedical Engineering and
Science Institute
Drexel University
32nd and Chestnut Streets
Philadelphia, PA 19104 USA
(215) 895-2215

December 28, 1989

Professor Robert J. Marks, II
Chair, IEEE Neural Networks Committee
Interactive Systems Design Laboratory
Department of Electrical Engineering, FT-10
University of Washington
Seattle, WA 98185

Dear Bob:

Thank-you for your letter of December 4th in which you report on the status of the Neural Networks Conference. As you mention in your report, there have been two primary irregularities in previous conferences: excessive travel support for session chairs and large fees paid to presenters of tutorials.

Your report indicates the actions taken to correct the first irregularity but does not speak to the second.

I would appreciate receiving information about the level of fees that are being paid for tutorials and whether they conform to IEEE guidelines; if not, what corrective actions have been put in place.

Sincerely,

A handwritten signature in cursive script, appearing to read "Dov Jaron".

Dov Jaron, Ph.D.

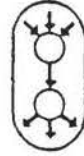
DJ/tw

Attachment

cc: Eric Herz
Irving Engelson
Melvin Olken



NEURAL NETWORKS



December 4, 1989

Dr. Dov Jaron
Biomedical Engineering and Science Institute
Drexel University
Philadelphia, PA 19104

Dear Dov,

At your request, I am providing a summary of Conference Activities of the (*IEEE Council on Neural Networks*). All of the conferences thus far have been huge technical successes. The current series of International Joint Conferences on Neural Networks (IJCNN's) are currently the most visible and largest conferences in the world on the topic. There have been, however, numerous problems in the management of the conferences. It is these issues I will primarily address.

The International Conferences on Neural Networks were held in San Diego in the summer of 1987 and 1988. The primary irregularities in these conferences were excessive travel support for session Chairs and the large fees paid to presenters of tutorials.

At the 1988 meeting of the Planning Committee for the 1989 Conference, a procedure was discussed whereby session Chairs could be reimbursed for travel based on hardship only. The program Chair for the Conference (now the IJCNN) ignored the spirit of the agreement and informed all session Chairs that travel would be reimbursed from the NNC upon petition.

The Conference Chairs (Al Stubberud, currently Division VI Director, and Wes Synder) and I felt that many of the session Chairs had, in good faith, made travel plans contingent on Conference support. Each was contacted by one of the Conference Chairs and the matter was resolved on a case-by-case basis. In order to assure that the matter did not again surface, I indicated in writing to the next Conference Chairs that any financial commitments made without NNC approval would be the responsibility of the person making it. The 1990 IJCNN Chairs (Joseph W. Goodman and Walter Karplus) are aware of the past abuses and are sympathetic to the NNC's position on the matter. The current mood of the NNC is to ban all budgeted support for session Chairs after 1990.

There were also problems with the financial accountability for the 1989 IJCNN. Despite reminders from IEEE Conference Services and the NNC, the 90 day financial report required by IEEE from the Conference Finance Chair was not forthcoming. Checks were issued by the Finance Chair to the sponsoring societies for approximately \$200,000 in late September of this year. The conference is currently being audited by Coopers & Lybrand. Irv Engelson, as a signatory for the conference, ordered the audit at the request of the NNC.

Two major Neural Networks conferences were planned for the summer of 1989 - one sponsored by the NNC and one by the International Neural Networks Society (INNS). To avoid conflicting meetings in both time and location, the NNC and INNS crafted an agreement whereby coordinated semiannual IJCNN's would be offered. After 1990, the current plan calls for one annual IJCNN in North American each summer and one outside the country during the winter. We are currently crafting a more detailed agreement with INNS for the co-sponsorship of these conferences. The IJCNN Oversight Committee (IOC) Chair is Robert W. Newcomb, an IEEE Fellow.

Additional steps that have been taken to assure past problems do not reoccur include review of all conference budgets and contracts by IEEE Conference Services and with the approval of Eric Herz, appointment of Mel Olken to the IOC.

Please contact me if you require further information.

Sincerely,



Robert J. Marks II
Chair, IEEE Neural Networks
Committee
President, IEEE Council on Neural
Networks (CNN)

cc: CNN Executive Committee
Dr. Robert W. Newcomb (IOC Chair)

Attachment #14. NNC AdCom minutes, Jan 16, 1990, pp.1-
2.

Minutes
 Neural Networks ADCOM meeting
 Jan 16, 1990

| | Abbreviation | Name | Affiliation |
|------------------|--------------|----------------------------------|-------------------------------|
| | RM | Robert J. Marks II | CAS |
| | RE | Russ Eberhart | EMBS |
| | TF | Toshio Fukuda | Industrial Electronics |
| | SL | Stephen Luse | Ocean.Soc. (for Simpson) |
| | WS | Wes Snyder | Robotics and Automation |
| | KK | Kathleen Kirkpatrick | OES (for R. Trueblood) |
| | MR | Michael W. Roth | IEEE Trans NNs |
| | TK | Teuvo Kohonen | ICANN-91 conf |
| | RN | Roy Nutter | IAS |
| Attending | RS | Rosalyn Snyder | Communication Unlimited, Inc. |
| | MC | Maureen Caudell | INNS |
| | AF | Albert W. Friend AESS (observer) | AESS liason repres. (1) |
| | WK | Walter J. Karplus | IJCNN-90 |
| | NC | Nicholas DeClaris | SMC |
| | DB | Don E. Brown | SMC |
| | BN | Robert Newcomb | CAS |

Observers only:
 Rolf Eckmiller
 Igor Aleksander

ICNC, NSMS in FRG/1990
 ICANN 91 Prog chair

The meeting was called to order at 6:35pm.

RE reviewed the minutes of the Denver meeting. The minutes were revised as follows: Page 1, second line from bottom: replace "financial chair" with "IEEE liason to the Financial Chair". Page 3, second paragraph: reword to read "A. Ephremides reported on the volunteer restructuring proposal." RE moved, RB seconded approval of minutes. Passed.

RM reported. Most things going well. MC will chair publications committee.

RE gave treasurers report: Current net worth of the council ≈ 100K. Until the council's net worth is equal to or greater than six month's operating expenses, or about 300K, no disbursements to the member societies will occur.


MR gave the editor's report: We still don't know how many subscriptions to expect. RE reported that as of late December, we had over 2200 paid subscribers.

BN gave the report of the Meetings committee: He passed out the IOC agreement and the meetings schedule. He announced that the Paris Conference and the Helsinki Conference now agree to follow IEEE guidelines. The meetings committee is considering sponsorship of workshops and small symposia.

WK reported on the 90 San Diego conference: Planning is well under way. He is concerned about attendance. The conference budget includes:

WRC.

- 1) Travel support for session organizers
- 2) Money for tutorial speakers: 3500 for 3 lectures, plus 12.50 per attendee, with a ceiling of 5K. They do not get travel.
- 3) Funds for a keynote speaker.

[The budget is a NOT-TO-EXCEED budget. Chairs will not exceed the budget without authorization.] 

RM reported that there was concern on TAB about the session chair travel.

RM gave the nominations committee report: Herb Rauch is chair. RE reported that he is nominating Pat Simpson for Treasurer. Brad Dickinson has agreed to chair the awards committee.

RE reported on the ad-hoc committee on standards: The initial standards committee task is a glossary. He gave an open invitation to ADCOM members to join the committee. He is also looking for participation from industry and academics. The first meeting of the committee will be in San Diego.

RM asked for proposals for specialized workshops. For example, Neural Networks in Robotics and Automation.

RE reported on registration of the logo: It is proceeding.

The Industrial Applications Society and Oceanographic Engineering Society are both petitioning to join the council.

SIGNAL AND IMAGE PROCESSING INSTITUTE
DEPARTMENT OF ELECTRICAL ENGINEERING-SYSTEMS



5 November 1991

Professor Mohamad H. Hassoun
Associate Editor, Book Reviews
IEEE Transactions on Neural Networks
Department of Electrical and Computer Engineering
Wayne State University
Detroit, Michigan 48202
(313) 577 - 3881 fax

Dear Professor Hassoun:

This letter confirms our telephone conversation this afternoon. Earlier I spoke to Dr. Michael Roth, TNN editor, and he told me that you may assign Mr. Pat Simpson to review my new Prentice Hall textbook, Neural Networks and Fuzzy System.

I believe this assignment would be inappropriate for at least two reasons. First, Mr. Simpson and I seem to have personality conflict arising from my rejection of his paper in my unsupervised-learning session of IJCNN-90 in the spring of 1990 and, in the late fall of that year, my rejection as TNN associate editor of his manuscript on fuzzy adaptive resonance theory. Mr. Simpson protested the latter decision, as both Dr. Roth and Dr. Herbert Rauch, founding TNN editor, can attest. Second, Mr. Simpson has authored a competing neural book with Pergamon Press and has already recently reviewed another competitor's neural book in the TNN.

For these reasons I believe such a book-review assignment would constitute an unnecessary conflict of interest.

Sincerely,

A handwritten signature in cursive script, appearing to read "Bart Kosko".

Bart Kosko, Ph.D.
(213) 740 - 6242
(213) 740 - 4651 fax

P.S. I suggest that whoever reviews NNFS also review, at the same time, its companion volume, Neural Networks for Signal Processing. The two volumes are closely connected.

Attachment #15. Excerpts from AdCom minutes, November
26, 1989.

MINUTES OF THE IEEE-NNC MEETING

NOVEMBER 26, 1989

SHERATON DENVER TECHNICAL CENTER, CO.

R. J. Marks II Presiding:

The meeting came in session at 1:33 pm. The following NNC members were present: R. Eberhart, J. W. Goodman, R. J. Marks, R. Newcomb, H. Rauch, E. Tzanakou, W. Snyder W. J. Karplus (ex officio) and A. Ephremides.

Introductions were made and proxies presented. Oral and written proxies were discussed. Only the written ones were accepted. Those were F. Aldana's to W. Snyder and T. Nagle's to R. Eberhart.

The proposed agenda with addenda was introduced by R. Marks and was adopted as modified.

The minutes of the June 18th meeting were approved with minor corrections (mostly typos). (Attachment 1).

Robert Marks in the chairman's report indicated that the NNC petition to become a Council as of January 1, 1990 was approved by the Technical Activities Board (TAB). The IEEE Council on Neural Networks will be an ex officio member of TAB. The status of the current meeting is as both a Committee and Council. According to the Constitution and Bylaws of the Council, four officers are to be elected to do business for the CNN.

R. Newcomb is the new chairman of the IJCNN Oversight Committee (IOC) as N. Declaris stepped down from this post. R. Eberhart was appointed as the Financial Chair for the IJCNN meeting in January 1990. F. Aldana and Chris Johnson stepped down from the IOC as well.

The next report was given by W. Karplus who discussed budget issues for the San Diego 1990 IJCNN Conference. The subject of reimbursing the organizing committee members for travel was discussed as well as the fee and travel expenses for the keynote speaker. A motion was made that "the Neural Networks Committee not approve the proposed contract with J. Burke, unless the total amount is reduced to \$5,000 including all expenses". The motion was seconded, discussed, voted upon and passed. A second motion by Russ Eberhart "that all reimbursements for travel for session organizers for the 1990 IJCNN in San Diego be on the basis of need, under the item by item control of the General Chairman", passed as well.

Attachment #16. Excerpts from AdCom minutes, June 19,
1990.

IEEE COUNCIL ON NEURAL NETWORKS

ADCOM MEETING

JUNE 19, 1990

The meeting was called to order at 18:35 pm. Robert Marks [#] III presiding.

Introduction of members took place and proxies were presented (for G. Cook by R. Nutter.)

A motion to accept the consent agenda addenda was put through and was passed.

The attendance was as follows:

Voting Members - R. Newcomb, R. Trueblood, T. Fukuda, R.Eberhart
W. T. Miller, W. E. Snyder, H. Rauch, R. Nutter,
B.Dickinson, D. Brown, S. Kartalopoulos, P.K.Simpson, C.J.
Robinson, T. Cathey (For K. Johnson), N.DeClaris, K. Bakhru,
S. Usui, J.W.Goodman, R. Marks, E. Tzanakou

Non Voting - W. J. Karplus, T.-S. Low, A. Friend, M.W. Roth
A. Ephremides.

H. Rauch was given the floor for nominations and election of the officers for 1991. Elected were R. Marks, President, R. Eberhart, Vice President, E.Tzanakou, Secretary, and P. Simpson, Treasurer.

Approval of the minutes of the January meeting took place with changes as follows:

Page 1. Robert Marks is the President of the IEEE Concil on Neural Networks, Russ Eberhart is the Vice President, Maureen Caudell should be Maureen Caudill, A.W.Friend is not an observer. The abbreviation N.C. for N.

and 9 were changed as reflected in the attached document. Motion passed.

R. Nutter moved that "The meetings committee recommends that the association between the IEEE council on NN and INNS be dissolved unless an IOC agreement is approved by both parties by July 18, 1990.

The motion was discussed and amended to reflect an extension of the deadline to Nov. 1.

Amendment carries.

Motion carries.

Next motion was on the approval of the budget of the IJCNN-91 Seattle preliminary budget to be approved for 1775 attendees, subject to IEEE Headquarters approval.

A motion to table the discussion and discuss it by e-mail was defeated.

Another motion by R. Eberhart "I move that the INNS be urged to establish a fee structure for the 1991 Seattle IJCNN that contains registration and tutorial fees no higher than 10% over the fee structure of the 1990 San Diego IJCNN" was discussed. Two friendly amendments were made to the motion: that that happens by November 1, and that furthermore it is requested that the attendance estimate is reduced to 1200 or 1500".

Motion carried.

The Burke item (tab 4) was discussed next. W. Karplus moved that "IEEE Council on NN direct B. Marks to settle the Burke matter in a way that avoids adversary confrontation with a maximum limit of \$3,750. Motion carries.

Attachment #17. The Review of Kosko's paper.

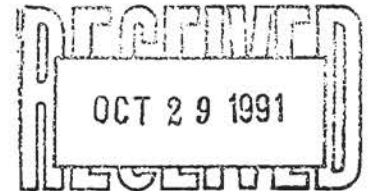
TNN#1018

SIGNAL AND IMAGE PROCESSING INSTITUTE
DEPARTMENT OF ELECTRICAL ENGINEERING-SYSTEMS



21 October 1991

Professor Michael W. Roth, Editor
IEEE Transactions on Neural Networks
Johns Hopkins University
Applied Physics Laboratory
Laurel, Maryland 20723



Dear Michael:

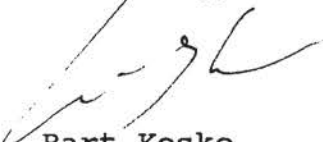
Please find enclosed six copies of my manuscript, "Fuzzy Systems as Universal Approximators," submitted for possible publication as a brief paper in the TNN.

The paper shows that neural-like or additive fuzzy systems are dense in the space of continuous functions and shows how neural systems can directly approximate these fuzzy systems from training data. The proof implies that we can always work with discretizations of any continuous fuzzy set and so reduce it to a point in a finite dimensional unit hypercube. This in turn implies that each fuzzy rule corresponds to a regular (or fuzzy) Hebbian outer-product correlation matrix of high dimension. The proof does not require the Stone-Weierstrass theorem or similar "high-powered" theorems from functional analysis, as used in showing that multilayer feedforward networks are universal approximators.

I submitted an earlier and briefer version of this paper for consideration in the proceedings of the FUZZ IEEE '92 conference (not for the TNN special issue on fuzzy systems).

Please contact me if you have any comments or questions.

Sincerely,


Bart Kosko
(213) 740 - 6242

enclosures

19. Excerpts from IEEE Policy & Procedures Manual.



THE INSTITUTE OF ELECTRICAL
AND ELECTRONICS ENGINEERS, INC.

345 East 47th Street
New York, N.Y. 10017-2394, U.S.A.

IEEE POLICY AND PROCEDURES MANUAL

JANUARY 1993

qualifying magazine titles through the U.S. Patent and Trademark Office, to protect its titles from infringement by others. (The expense of title registration will be borne by the sponsoring entity.)

6.21 - PUBLICATIONS ADMINISTRATION CHARGE

The Society or sponsoring entity shall continue to pay its appropriate share of the Publications Administration Charge at Headquarters. These charges are to recover the costs of providing services including, but not limited to: providing mailing lists; postal permits; microfiche; copy-righting of materials; permissions requests; Publications Board support; Library services and archiving.

6.22 - APPEAL OF EDITORIAL DECISIONS

Where disputes arise in the course of the review or publishing process, that cannot be resolved at the sponsoring-entity level, an appointee of the Vice President of Publication Activities shall act as mediator and attempt to resolve the dispute. Within thirty days of receipt of a written complaint, the mediator shall consult with all the parties to the dispute and facilitate communication and discussion among them. If the mediator shall not be able to resolve the problem within 60 days from the receipt of the complaint, the mediator shall refer the matter to the Publications Board, together with any recommendations, for further action.

REFERENCES: (See Table of Contents)

| <u>SECTION</u> | <u>SUBJECT</u> |
|----------------|--|
| 1 | Regional Activities |
| 2 | Technical Activities |
| 3 | Educational Activities |
| 4 | Awards Activities |
| 5 | Intersociety Activities |
| 7 | Professional Activities |
| 8 | Standards Activities |
| 9 | Activities - IEEE Organizational Units |
| 10 | Meetings, Conferences, Symposia and Expositions |
| 11 | Financial Matters |
| 12 | Legal and Tax Matters |
| 13 | Nominations and Elections |
| 14 | Mailing Lists and Rosters |
| 15 | IEEE Position Papers, Entity Position Statements and Testimony Before Government Bodies. |

7.7 - PROFESSIONAL WELFARE OF MEMBERS

The IEEE is concerned with the professional welfare of its members. The administrative, geographical and technical units are encouraged to pursue appropriate activities in this area, such as the following:

- A. Organizing or sponsoring career development seminars for members.
- B. Organizing or sponsoring educational activities which upgrade the skills of members.
- C. Publishing information on existing legislation or proposed legislation which may affect the professional welfare of IEEE members.
- D. Arranging for group insurance plans which benefit members, provided these do not duplicate other plans sponsored by the IEEE and provided the IEEE unit does not benefit financially from such plans. Prior to establishment of an insurance plan by an organizational unit, legal approval must be sought through Headquarters and the plan referred to the Executive Committee for authorization.



7.8 - IEEE CODE OF ETHICS

We, the members of the IEEE, in recognition of the importance of our technologies in affecting the quality of life throughout the world, and in accepting a personal obligation to our profession, its members and the communities we serve, do hereby commit ourselves to conduct of the highest ethical and professional manner and agree:

1. to accept responsibility in making engineering decisions consistent with the safety, health, and welfare of the public, and to disclose promptly factors that might endanger the public or the environment;
2. to avoid real or perceived conflicts of interest whenever possible, and to disclose them to affected parties when they do exist;

3. to be honest and realistic in stating claims or estimates based on available data;
4. to reject bribery in all of its forms;
5. to improve understanding of technology; its appropriate application, and potential consequences;
6. to maintain and improve our technical competence and to undertake technological tasks for others only if qualified by training or experience, or after full disclosure of pertinent limitations;
7. to seek, accept, and offer honest criticism of technical work, to acknowledge and correct errors, and to credit properly the contributions of others;
8. to treat fairly all persons regardless of such factors as race, religion, gender, disability, age, or national origin;
9. to avoid injuring others, their property, reputation, or employment by false or malicious action;
10. to assist colleagues and co-workers in their professional development and to support them in following this code of ethics.

7.9 - MATTERS OF ETHICAL PRINCIPLE

- A. The Executive Committee is empowered by the Board of Directors to enter an amicus curiae brief in any court in the U.S.A. or in cooperation with cognizant national societies in other countries where a member of the profession is involved as a consequence of his taking a position on a matter of ethical principle.
- B. The Executive Committee is empowered to publicize actions described in paragraph A in any fashion deemed suitable and appropriate.
- C. It is Institute policy that the IEEE will not, as to disputed facts, intervene or take an adversary position on behalf of or against any member involved in a matter of ethical principle.
- D. It is Institute policy that changes to the IEEE Code of Ethics will be made only after the following conditions are met:
 - 1) Proposed changes shall have been published in THE INSTITUTE at least three months in advance of final consideration by the Board of Directors, with a request for comments, and
 - 2) RAB, TAB and USAB shall have the opportunity to discuss proposed changes prior to final action by the Board of Directors, and

be encouraged to attend discussion groups at the Region, Section and Society meetings, to become more fully aware of the Institute's functions.

9.9 - CONFLICT OF INTEREST

For the purpose of this policy, conflict of interest is defined as any situation in which a member's decisions or votes could substantially and directly affect the member's financial or business interests. It is the responsibility of all IEEE members in any elected, appointed, or volunteer position of an Institute activity to consider each item of business where they have a vote or decision authority to determine if a conflict of interest may exist. Any such recognized potential conflict shall be made known immediately to the person in charge of the activity (or the next higher authority if the member is in charge) who, after consultation with other individuals in the activity, will advise the member of the proper course of action and cause a notation of the action to be entered in the activity's record.

This policy shall also apply to nonmembers who are serving the Institute in some capacity.

9.10 - ADMINISTRATIVE PROCEDURES FOR REGIONAL AND TECHNICAL ACTIVITIES

A. Agenda and Minutes of Meetings. The successful achievement of IEEE objectives will be advanced by establishing certain administrative guides to be implemented by IEEE's members and subdivisions. In this regard, issuing agenda and maintaining and reviewing minutes of IEEE meetings will help to insure that, consistent with IEEE's decentralized structure, lines of communication among members are maintained, topics for discussion are clearly defined, and sufficient written records are preserved for future reference and needs.

- 1) It is the policy of IEEE that, whenever practicable, an agenda listing the topics for discussion shall be sent to the members at a reasonable time prior to each meeting (other than formal conferences, symposia or conventions) of an IEEE Board, Committee, Panel or other working assembly of a Region, Society, or other IEEE organizational unit, or of a joint intersociety unit in which IEEE formally participates, or, in any event, shall be distributed at any such meeting by the Secretary of the particular body or by a designated member of the particular body.
- 2) At each meeting (other than formal conferences, symposia or conventions) of an IEEE Board, Committee, Panel or other working assembly of a Region, Society or other IEEE organizational unit, or of a joint intersociety unit in which IEEE formally participates, minutes of the

meeting shall be maintained by the Secretary of the particular body or by a designated member of the particular body. Minutes shall record concisely attendance at the meeting, the substance of all discussions and any actions taken, but need not be in the nature of a verbatim transcript. Maintenance of record copies of the minutes and distribution and review of these minutes shall be carried out by each IEEE entity pursuant to such rules and procedures as are adopted by each body.

B. Organization of Technical Working Groups and Committees. To achieve the technical objectives of IEEE demands that diverse resources be employed toward the resolution of technical issues. It is the belief of IEEE that the Institute's technical goals can be furthered most productively through the intelligent utilization of the talents and experience of various individual members serving in their separate, individual expert capacities on appropriate IEEE Committees or working assemblies in IEEE Societies. No member should construe his position to be that of a representative of his employer.

- 1) Therefore, it is the policy of IEEE that the membership of each Committee, Subcommittee or working assembly of an IEEE Society shall reflect various factors deemed appropriate by such IEEE entities (e.g., geographical balance, special expertise, etc.) and shall include a reasonable proportion of persons (one or more) employed by supplier, user and/or other involved organizations in each industry that, in the judgment of each Society, will be affected by or concerned with any subject, except solely administrative or managerial matters, within the stated scope of, or properly to be considered at any meeting of, such Committee, Subcommittee, or working assembly, consistent with its size.
- 2) No meeting of any of the above Committees, Subcommittees, or working assemblies shall convene where the interests associated with the persons in attendance are solely those of either supplier or user organizations.

9.11 - AVAILABILITY OF MINUTES OF IEEE BOARD OF DIRECTORS MEETINGS

Any member in good standing who has been a member in good standing for at least the prior six months, may examine at IEEE's New York Headquarters the minutes of any individual Board of Directors meeting which have been approved by that Board, or may be furnished such minutes by mail, at a fee to be determined by the General Manager, provided the request is in writing, and assures that the minutes will be used in compliance with



ARTIFICIAL INTELLIGENCE CENTER

FACSIMILE TRANSMISSION

Date: Wednesday, October 20, 1993
From: Enrique H. Ruspini
Fax No.: 415-859-3735
Telephone: 415-494-0862

To: Prof. R. Marks
Fax No.: (206) 543 3842

Number of Pages including this Cover: 7

Bob,

This is the letter that I sent to P. Morley.

Cheers,

Enrique

SRI INTERNATIONAL
333 Ravenswood Avenue
Menlo Park, CA 94025

Dr. Enrique H. Ruspini
Artificial Intelligence Center
Tel.: 415 859 2314, FAX: 415 859 3735
E-mail: ruspini@ai.sri.com

Through December 10, 1993:
c/o Professor Llorenç Valverde
Department of Mathematics and Informatics
University of the Balearic Islands
Campus Universitario, Ctra. Valldemossa Km. 7.5
07071 PALMA, SPAIN
FAX: [+34] 71 17 30 03

October 16, 1993

Dr. Lloyd A. 'Pete' Morley, Chair
TAB Periodicals Committee
The University of Alabama
Box 870207
203 Tom Bevill Building
Tuscaloosa, AL 35487-0207
FAX 205 348 9455

Dear Dr. Morley,

I am responding, per Dr. Marks's request, to your FAX letter of October 7, 1993 to provide background information and additional comments on Professor Bart Kosko's complaints about the review of his book *Neural Networks and Fuzzy Systems* prepared by Mr. Patrick Simpson for publication in the IEEE Transactions on Neural Networks.

I am a Senior Computer Scientist with the Artificial Intelligence Center of SRI International. I have worked in that research institute for over nine years, having previously held positions at Hewlett Packard Laboratories, TRW Systems, the University of California at Los Angeles, the University of Southern California, and the University of Buenos Aires. I was recently awarded the SRI Institute Fellowship, which is the highest professional recognition that the Institute bestows on members of its professional staff. I am also a former Fulbright Fellow and I have served as a visiting scholar and professor at various academic institutions. I have a Ph.D. degree from the University of California at Los Angeles and a degree of Licenciado (M.S., Mathematics) from the University of Buenos Aires, Argentina.

My interest in fuzzy sets goes back to 1965 when I became acquainted with the seminal paper by Lotfi A. Zadeh. My first paper on the subject, which appeared in *Information and Control* in 1969, introduced the use of fuzzy-set techniques to the solution of cluster analysis problems. Related papers in subsequent years also introduced the use of fuzzy set and fuzzy logic ideas to the solution of pattern classification problems. I have been an active researcher in fuzzy sets, fuzzy logic, and their applications since then being, together with Professor James C. Bezdek and Madan Gupta, one of the founders of the North American Fuzzy Information Processing Society (NAFIPS). Recently I have served as General Chair of the 1993 IEEE International Conference

To: Professor L.A. Morley, October 16, 1993

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on Neural Networks (ICNN'93) and of the Second IEEE International Conference on Fuzzy Systems (FUZZ-IEEE'93).

My personal interactions with Bart Kosko have been very limited and include only two or three telephone conversations and a similar number of personal interactions. I did not have had a chance to discuss, in any of these occasions, any significant technical issues with him. I estimate that the total aggregate time of these exchanges to be about 20 minutes. Although I attend regularly major meetings dealing with fuzzy logic and its applications I have failed to see Professor Kosko at most of them.

I am, of course, aware of Professor Kosko's contributions to the literature in fuzzy systems and I have been able to form opinions about it. In particular, I have read the book reviewed by Pat Simpson that is source of the controversy addressed by this letter.

My personal acquaintance with Professor Marks, Mr. Simpson, and other officers of the IEEE Neural Networks Council is very recent. I was contacted in the Spring of 1991 by Professor Marks and Dr. Russell Eberhart, then Vice-president of the NNC, who offered me to chair the second of a series of conferences that the NNC was sponsoring in the area of fuzzy systems. Having accepted and being appointed by NNC AdCom to serve in this capacity during their June 1991 meeting in Seattle, Washington, I have interacted since then with members of the NNC on a regular basis. With the exception of the review in question and of coincidental participation in meetings sponsored by the IEEE and other organizations, all of these interactions have been related to my role as a General Conference Chair on behalf of the NNC.

Although my relationship with NNC officers has been not only quite friendly but also rather successful, I do not think that these professional acquaintances can be described as being friendship relations and, most certainly, they are not the kind of evil alliance toward some perverse purpose that Kosko so irresponsibly claims in his letter.

When Professor Marks solicited that I review Mr. Simpson's contribution, I accepted the task applying the same principles that I have used in many similar situations in the past. Application of these standards led me to the conviction, based on professional experience and education, that I was capable to render a competent refereeing job. Although I was certainly aware of the controversy regarding the review—having been appraised of it by Professor Marks at the time of his request—I only employed, as always, technical competence considerations to determine my ability to review the work.

I strongly reject the accusations of Professor Kosko who, lacking any evidence and being totally unaware of my identity, attributes unethical and unprofessional motives to my review. In the recent IEEE conferences that I chaired, Dr. Kosko was offered and accepted a position in one of the Program Committees (ICNN'93). Furthermore, he submitted two papers (co-authored with students), which were accepted for presentation. In particular, I had a decisive role to correct, at the request of Professor Kosko, a recording error by the staff of a Program Committee member that would have meant that one of his co-authored papers would have been presented in a poster session rather than as part of the main technical program. I hardly think that these recent episodes prove anything but a disposition to treat Professor Kosko with fairness.

I have been an active member of the scientific community for a number of years and I think that my standing in that community, particularly as it respects my ethical and professional standards, is so well established that no further comments in this regard are necessary.

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It is a rather difficult matter for anybody to approach objectively the contributions and achievements of Professor Kosko. In the past he has shown such an aggressive behavior pursuing recognition and fame—often through unconventional popular media articles—that anybody preferring the more familiar and circumspect ways of scientific discourse is immediately taken aback by the uncontrolled aggrandizing that he has received in those publications. Professor Kosko is described, for example, as the new-age Descartes in a recent review of his latest book in the *San Francisco Chronicle*. Approaching his work is made considerably more difficult by his own propagandizing, exemplified by the book reviewed by Mr. Simpson—which contains numerous convenient comparisons with the great and ecstatic self-evaluation of his own findings. Reluctance to consider seriously such claims is enhanced when some of them (e.g., the supposed resolution of the Liar's paradox) are easily seen to be erroneous statements arising from obvious misunderstanding of the underlying issues.

Although it is true that every scientist tends to have a more or less exaggerated view of his own accomplishments in relation to those of others, it takes only a cursory reading of Kosko's own description of his major results or of the popular press rendering of his abilities or personality traits to come to the conclusion that a considerable dose of moderation would have been desirable.

I am certainly aware of the well-deserved fame that some scientists have gained through their writings in non-professional publications—Stephen Jay Gould, Carl Sagan, Lewis Thomas are names that come to mind—and of the recognition that great thinkers have earned by their epoch-making contributions but I fail to see anything in Kosko's accomplishments so far that comes close to match either kind of achievement.

It is clear from Prof. Kosko's letter to Ms. Hall that he believes—his assurances of fair-mindedness notwithstanding—that anybody who does not appreciate his work must be necessarily be predisposed against him for less than commendable reasons. In fact he imputes—sight unseen and without any evidence—such unethical conduct to the reviewers of Mr. Simpson's evaluation, who are derided throughout his letter as “fuzzy friends” or “fuzzy colleagues” of Professor Marks.¹

This type of reaction has been characteristic of many of Kosko's exchanges with his critics and has been duly recorded in some of his popular-press profiles. Such a persistent belligerent attitude might have unwanted consequences, subconsciously biasing those trying to evaluate objectively his work.

One must recognize, therefore, that, in this case, a tendency to discount a person's achievements because of his or her unconventional style must be guarded against and I can assure you that I was well aware of that possibility when I read Kosko's book and Simpson's evaluation of it. Hard as it may be, however, the task of objective evaluation is, nonetheless, quite feasible. It must be remembered, however, that, such considerations notwithstanding, it is still up to the author, through his work, to make a case for himself. Self-aggrandizing or condemnation or defamation of his critics will not do.

¹ It is interesting to note that Professor Kosko requested, in a electronic-mail message sent this past Spring, that I contribute a positive statement to be included in the dust jacket of his recent book *Fuzzy Thinking*.

To: Professor L.A. Morley, October 16, 1993

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Beyond any particular bias induced by the practices or personality traits of the author of the book in question, my review also tried to discount the effects of any potential malicious mischief arising from unknown past problems that Kosko claimed had sully his relationship with Simpson. In consideration of those allegations I exercised particular care to examine Simpson's review so as to uncover any possible evidence of malice on the part of the reviewer. I could not find any evidence whatsoever of that disposition.

In the rest of this letter I try to address in some detail the major issues raised by Kosko's book, Simpson's review of it, and subsequent correspondence by various parties.

I will focus first on my own appraisal of Mr. Simpson's review. My main conclusion was that the review was supported by adequate technical arguments being neither incompetent nor malicious. I expressed also surprise at the mildness of the review given the highly biased accounts provided by Kosko about the development of fuzzy logic and his own role in such development.

Furthermore, I decried the nearly complete lack of significant references to the work of important fuzzy researchers and their noteworthy achievements. Although I did not mention any specific names, as Kosko seems to believe, a quick review of major papers and surveys of fuzzy-logic literature will suffice to support this contention. Looking, for example, at the collection recently edited by Dubois, Prade, and Yager (*Readings in Fuzzy Sets for Intelligent Systems*, Morgan Kaufmann, 1993), one can plainly see the vast difference between what mainline researchers in the field find significant and what Kosko sees as important (i.e., mostly his own work). An evaluation of major papers in the application of fuzzy logic to pattern recognition and signal processing, such as the collection edited by J. Bezdek and S.K.Pal (*Fuzzy Models for Pattern Recognition*) for IEEE Press leads to the same conclusion.

Among four experts in fuzzy logic who have recently received IEEE Fellowships for contributions to the field, Kosko has only three references to one of them, all in the context of presenting his insights as being more valuable. Significant names in the literature, like Bezdek, Dubois, Prade, Trillas, or Yager, are either ignored or summarily referenced only to provide some background to Kosko's results. For example, the many works of the team of Dubois and Prade merit a single reference. This reference is not to any of their major results but to a book that presents a central result of Zadeh, which Kosko disparages in a rather cursory manner. Certainly, if names omitted by the unknown reviewers were—as claimed by Kosko—those of themselves and their friends, then one might rightly say that we must be so lucky to have so many friends.

Beyond mere omission, Kosko's book suffers from unrestrained exaggeration when describing the role of his own ideas in the development of fuzzy logic and the depth and importance of his results. Some of these findings, for example, are given a status that belies their lack of regard by most members of the fuzzy-logic community. The importance of the "subsethood theorem" and its consequences—notably the rather debatable claim that fuzziness subsumes probability—is a good example of those overstatements (see the clear exposition of Dubois and Prade in their plenary paper published in the *Proceedings of FUZZ-IEEE'93* for a discussion of those and other claims).

In other instances, the book may be strongly criticized because of the author's continued use of his own neologisms (notably, the ubiquitous FAMs) to obfuscate previous development by others of equivalent ideas and concepts.

My review of Simpson's evaluation of Kosko's book predates the latter's letter to Ms. Hall and I was unable, therefore, to take into account particulars of the situation as described there. Even

To: Professor L.A. Morley, October 16, 1993

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granting Kosko the benefit of the doubt, there is absolutely nothing in that letter to make me arrive at a different conclusion.

The evaluation by Pat Simpson is based on technical assessments—which may conceivably be refuted—but then only through sound counter arguments rather than by mudslinging. This is the way of science and it is my strong recommendation that the IEEE Board of Directors makes a firm stand toward defending the right of scientists to express disagreement with the work of others when such dissension is made according to the rules of proper scientific argument. If Kosko disagrees with Simpson's criticism of his work, he could always use the same rules to advance cogent counter arguments that will presumably reveal, to Simpson's considerable chagrin, his lack of insight or depth in technical issues.

In fact, if those arguments were available, one could reasonably expect that Prof. Kosko would have already appealed to them in his previous exchanges with the IEEE. The main component of those exchanges, however, is a sorry letter that devotes a brief paragraph to summarily claim technical errors by Mr. Simpson while otherwise rambling extensively from the absurd to the preposterous.

We learn, for example, that Professor Marks' use of the introductory sentence "I know that you are familiar with the contents of Dr. Kosko's book" in his letter to the reviewers *proves* (italics mine) bias on his part. The implication that such a conclusion might be derived from such a cursory statement of fact starkly reveals Kosko's total lack of substantive arguments on behalf of his work.

If such a statement raises suspicions about Kosko's inferential procedures, those misgivings are hardly comparable with those arising from his curious standards of definition and behavior regarding conflicts of interest. For example, we learn that Marks had a conflict of interest with Simpson simply because one was a friend of the other. How does Kosko know of such a friendship? The answer is simplicity itself: Marks was the President of the NNC and Simpson was its Vice-president. That should be enough to disqualify Mr. Simpson.

We also learn, in Kosko's letter, that standards for handling conflictual situations may change depending on who is in charge. When Kosko was an Associate Editor of TNN, for example, he tells us that the proper course of action to deal with his conflict with Simpson was to give Simpson's paper a full review by other referees. We are apparently to believe that this was a fair review because of his ability to employ reviewing standards that he does not think that others are capable of exercising when his own work is concerned.

Even when one makes a total effort to separate accomplishment and personality it is difficult not to look askance at Kosko's claims of unethical behavior by Simpson because of his use of his employer's stationery (a commonly accepted practice) while Kosko's own letter is written on the stationery of the University of Southern California. It is indeed hard not to be emotional at a letter that rambles from irrelevant, meaningless threats (intervention by the FBI) to cheap shots (e.g., trying to invalidate Simpson's review because of his lack of a Ph.D.) to preposterous claims about lack of due process.

As any respectable scientist knows a review process is not a trial by a mutually agreed jury that decides upon the worthiness of a particular submission. The editor, using good judgment, submits the work to one or more reviewers who, in his evaluation, are capable of making a cogent case for or against it. The author may, of course, reject those arguments advancing those of his own. It is through this process, imperfect as it may be, that science advances, not through the undignified name-calling that Kosko resorts to in his letter. Should he persist on his misguided analogies trying to link the scientific review process with a court trial, he should be

To: Professor L.A. Morley, October 16, 1993

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reminded about these basic facts, noting also that most of his comments are based on the rankest form of innuendo and hearsay.

In summary, I am dismayed rather than enlightened by Kosko's letter to Hall, which does nothing to change my mind about Simpson's review. I also fail to see why the causes he adduces for either Marks' or Simpson's antagonism towards him fall outside the realm of ordinary disagreement in the technical professions.

In closing I can only bemoan the increasing lack of dignity in the responses of some, who in their excessive zeal, believe that criticism of their work should be answered with abuse and insult. I do not object to exchanges, painful as they may be, that expose errors of authors and reviewers alike but I believe that the IEEE should not fall prey to the undignified bullying tactics of those who equate scientific discourse with baseless name-calling and irresponsible accusation.

I believe also that it is important for the Institute to recognize a distressing increase in these patterns of exchange, as exemplified by the defamatory answers submitted to *Spectrum* (August 1993 and September 1993) by D. McNeill and P. Freiberger in response to my own review (June 1993) of their book *Fuzzy Logic*—a work that, curiously, praises Kosko's work to the point of exaltation. Once again the technique is to distort the reviewers' words, recklessly challenge their qualifications, irresponsibly doubt their motivations, and ignore or misrepresent criticism of the authors' technical errors. By sheer mudslinging and little technical argument, reviewers are accused of unethical and unprofessional acts so that the discussion may be refocused on the personality of the reviewers rather than on the issue at hand: the worthiness of the work being reviewed.

The Institute should not fall prey to this disingenuous and dishonest game. I urge you to recommend publication of Simpson's review of Kosko's book in the *Transactions on Neural Networks*.

In closing, I want to thank you for your consideration of my feelings in this matter and I want you to know how much it is appreciated.

Sincerely yours,

Enrique H. Ruspini
Senior Computer Scientist
SRI Institute Fellow

RIGS → Chapter
Financial
Membership
- Body of Membership
- Will Grow



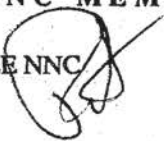
NEURAL NETWORKS COUNCIL

Patrick K. Simpson
President

PLEASE REPLY TO:
ORINCON Corporation
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San Diego, CA 92121 USA
Tel: (619) 455-5530 Ext. 267
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E-mail: xm8@sdcc12.ucsd.edu

IEEE NNC MEMORANDUM

To: IEEE Neural Networks Council
From: Patrick K. Simpson, President IEEE NNC
Date: November 29, 1993
Subject: January AdCom Meeting



Location & Date. The next Administrative Committee Meeting of the IEEE Neural Networks Council will be held at the Holiday Inn DFW Airport South, located at 4440 West Airport Freeway (approximately 1.5 miles from DFW Airport) in Irving TX on January 22, 1993. Please call 214/399-1010 to make your room reservations.

Meeting Times. The meeting times are as follows:

- Meetings Committee 8:00 am to 10:00 am
- Publications Committee 10:30 am to Noon
- AdCom Meeting 1:30 pm to 10:00 pm (dinner is 6:00 - 7:30 pm)

→ 214 790 8545 (FAX)

If there are other committee meetings that will be needed, please let me know no later than December 17, 1993 to allow proper planning.

Topics of Discussion. The January AdCom Meeting will discuss many important topics, including:

- The financial status of the NNC will be described in great detail, including the presentation of a revised 1994 budget and financial projections through 1998.
- The number of papers submitted to the 1994 World Congress will be known and various important publicity aspects of this meeting will be discussed.
- Standing committee chairs will be providing overviews of their 1994 activities including breakdowns of their budgets.
- The results of the NNC activities at the recent TAB meeting will be discussed, including the status of the TAB VR Technical Committee and the revised Constitution and Bylaws.

Preliminary Agenda. A preliminary agenda is attached describing these and other activities that will take place on January 22, 1993. If you have some specific items that you would like to place on the agenda, I will need the related material sent to me no later than December 17, 1993. This material will be included in the AdCom book. I have made specific input requests of each of the Editors and the Standing Committee Chairs. If you are a Standing Committee Chair and you have not received specific requests for this AdCom meeting, please contact me at once.

Travel Reimbursement. During 1994, I will only authorize \$600.00 of reimbursement for each AdCom Member to attend an AdCom meeting. Because the second 1994 AdCom meeting will take place in Orlando in conjunction with a major conference in our technical fields, it is likely that I will only grant reimbursement for the upcoming January AdCom. The site I have selected for January is central, accessible, and inexpensive. With proper advanced planning, the airfare and per diem for this meeting should easily fit within the allotted amount. I strongly encourage travel to DFW on Friday afternoon, January 21, 1994 and return on Sunday morning, January 23, 1994. The Holiday has quoted a modest rate of \$49.00 a night. Shuttle service is available at no charge between DFW and the Holiday Inn.

WCCI Technical Involvement. I have been asked by Dr. Charles Robinson, the Director General of the 1994 World Congress on Computational Intelligence, to extend an invitation to each of the AdCom members to organize a technical session in their field of interest and invite speakers to present papers at their session. I wholeheartedly endorse this invitation. I would like to see a high level of AdCom involvement in the technical success of this meeting. Make this a priority. I realize time is short, but this is vitally important. I think Dr. Robinson can convince the program committees to extend the deadlines for invited papers because they will not require the comprehensive review. If there is one NNC activity that needs everyone's undivided and focused attention, this is it. **Please take action now.** I have enclosed a few WCCI brochures. To get more brochures, simply call Kathy at Meeting Management (800/321-6338) and they will be sent immediately.

I look forward to seeing you in Dallas Fort Worth. If you have any questions or comments, please do not hesitate to contact me at the address above.

- 1. Publications Committee (Kartalopolous) TAB #10
 - a. Publications Committee Minutes from September 18, 1993
 - b. Publications Committee Report
- 2. Editors' Reports
 - a. Trans. on Neural Networks (Marks) TAB #5
 - b. Trans. on Fuzzy Systems (Bezdek)
 - c. Newsletter (Snyder) TAB #6
- G. Vice-President Conferences (Vacant) TAB #9
 - 1. Minutes of the NNC Meetings Committee (Bezdek)
 - 2. Summary of Final Reports Received by IEEE (Simpson)
 - 3. IJCNN 91 Singapore
 - 4. IJCNN 92 Baltimore
 - 5. FUZZ-ICNN 93
 - 6. VRAIS 93
 - 7. IJCNN 93 Nagoya
 - 8. WCCI 94 (Robinson)
 - 9. CIFEr (Marks/Mathews)
 - 10. ICNN 95 North America (Marks)
- H. Secretary's Report
 - 1. Constitution & Bylaws Committee
 - a. Proxies (Haines)
 - b. Proposed C&B Amendments (Simpson)
- V. OTHER STANDING COMMITTEE REPORTS
 - A. Awards Committee (Simpson) TAB #7
 - B. Fellows Committee (Sanchez-Sinencio) TAB #8
 - C. Educational Activities Committee (Haines)
 - D. Video Tutorials Committee (El-Sharkawi)
 - E. Regional Interest Groups Committee (Weil) TAB #11
 - F. Standards Committee (Padgett)
 - G. Distinguished Lecturers Committee (Wunsch) TAB #12
- VI. TECHNICAL COMMITTEE REPORTS
 - A. Evolutionary Computation (Fogel)
 - B. Virtual Reality (Caudell) TAB #13
 - C. Financial Engineering - AdHoc (Marks) TAB #14
- VII. INFORMATION ITEMS
 - A. SIT Withdrawal (Simpson)
 - B. NNC Logo Registration (Simpson)

→ #11k

IEEE Neural Networks Council Administrative Committee (AdCom) Meeting Agenda

Holiday Inn DFW Airport South
4440 West Airport Freeway
Irving, TX 75062
Tel: 214/399-1010
Fax: 214/790-8476

NO
* Anecdotal
* INNS - not professional
* not IEEE
* Lawyer

Saturday, January 22, 1994
1:00 pm - 10:00 pm

- I. ROLL CALL AND WELCOME (Simpson)
- II. REVIEW AND ADOPTION OF AGENDA (Simpson)
- III. CONSENT AGENDA (Simpson) TAB #1
 - A. Approval of Minutes of September 18, 1993 AdCom Meeting
 - B. Approval of Minutes of November 19, 1993 ExCom Meeting
 - C. Editor Appointments
 - D. Committee Chair Appointments
- IV. OFFICERS' REPORTS
 - A. President's Report (Simpson) TAB #2
 - 1. Neural Networks Council Financial Status
 - 2. Neural Networks Council Member Societies Statistics
 - B. Vice-President's Report (Karplus)
 - C. Treasurer's Report (Bonisonne) TAB #3
 - D. Secretary's Report (Karplus)
 - E. Past President's Report (Eberhart) TAB #4
 - 1. TAB Finance Committee's Concerns
 - 2. Member Society President's Concerns
 - 3. Constitution and Bylaws Approval
 - 4. Summary of TAB Actions
 - F. Division X Director's Report (Robinson)
- V. EDITORS REPORTS
 - A. Trans. on Neural Networks (Marks) TAB #5
 - 1. TNN Editor's Report

- 2. Approval of New TNN Associate Editors
 - B. Trans. on Fuzzy Systems (Bezdek)
 - C. Newsletter (Snyder) TAB #6
- VI. STANDING COMMITTEE REPORTS
- A. Awards Committee (Simpson) TAB #7
 - B. Fellows Committee (Sanchez-Sinencio) TAB #8
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 - 3. IJCNN 91 Singapore Final Report
 - 4. IJCNN 92 Baltimore Final Report
 - 5. FUZZ-ICNN 93 Preliminary Report
 - 6. VRAIS 93 Preliminary Report
 - 7. IJCNN 93 Nagoya Preliminary Report
 - 8. WCCI 94 Budget (Robinson)
 - 9. CIFEr Budget (Marks/Mathews)
 - 10. ICNN 95 North America Report (Marks)
 - E. Publications Committee (Kartalopoulos) TAB #10
 - 1. Publications Committee Minutes from September 18, 1993
 - 2. Publications Committee Report
 - F. Video Tutorials Committee (El-Sharkawi) TAB #11
 - G. Regional Interest Groups Committee (Weil)
 - H. Standards Committee (Padgett)
 - I. Distinguished Lecturers Committee (Wunsch) TAB #12
- VII. TECHNICAL COMMITTEE REPORTS
- A. Evolutionary Computation (Fogel)
 - B. Virtual Reality (Caudell) TAB #13
 - C. Financial Engineering - AdHoc (Marks) TAB #14
- VIII. INFORMATION ITEMS
- A. WCCI 94 Publicity (Simpson/Robinson)
- IX. OLD BUSINESS
- A. AdCom Travel Reimbursement (Lau) TAB #15
 - B. *RIG Support*
- X. NEW BUSINESS TAB #16
- A. Proposal to Become Neural Networks Society
 - B. *One Person/One Vote*

- B. USAB Appointment
- C. IVHS Appointment

XI. ELECTION OF OFFICERS

XII. NEXT MEETING

XIII. ADJOURNMENT

Tab #1
NNC Item III.A
January 1993

Minutes of September 18, 1993 AdCom Meeting

From wagner@uw-isdl.ee.washington.edu Fri Nov 5 09:12:40 1993
 From: wagner@uw-isdl.ee.washington.edu (Ruth Wagner)
 To: rce@rtifs2.rti.org
 Cc: wagner@essex.ee.washington.edu
 Subject: 9/93 AdCom Minutes
 Date: Fri, 5 Nov 93 09:17:25 PST

Russ:

Here is my final version of the minutes with the following comments to you.

1 - I did not have the VRAIS '94 motion and action or the ICNN '95 motion and action anywhere in my notes or tapes. Bezdek's notes showed that they had both been passed. Therefore, I put them in right after the dinner break as I had returned after the meeting had resumed and that seemed the only logical answer.

2 - I have marked the attachments in pencil in the event you want to add or delete from the packet. (I noted that you previously sent out the Rostov report and because of its bulk you may not want to include it with the minutes again.)

3 - I will send everything to you via Express Mail

4 - Would you pls acknowledge receipt of this email. Thanks.

Minutes of the NNC AdCom Meeting
 Seattle, Washington
 September 18, 1993

Page notations refer to hot pink agenda booklet distributed for this meeting unless otherwise noted.

Meeting of the IEEE NNC Adcom was called to order by President Russ Eberhart at 1:05 pm September 18, 1993.

The following proxies were announced:

Steve Byrson voting for Oscar Garcia; Toshio Fukuda voting for Troy Nagle
 Richard Saeks voting for Clifford Lau; Robert Marks voting for Rick Alan

Introduction of attendees:

Les Atlas (SP), Kesh Bakhru (ComS), Jim Bezdek (StCom, Mtg Com), Don Brown (SMCS), Steve Bryson (CS), Tom Caudell (VRAIS), Russ Eberhart (Pres), Mohamed El-Sharkawi (PES), Toshio Fukuda (Sec), James Glynn (OES), Karen Haines (OES), Walter Karplus (Stds Comm), Stamatios Kartalopoulos (Std Comm, CS), Doroia Kieronska (EC Conf), Robert Marks (NNC PP, TNN Ed), Scott Mathew (CIFE), Robert W. Newcomb (CAS), Roy Nutter (Trsr), Charles Robinson (Div X Dir, EMABS) Enrique Ruspini (GC), Richard Saeks (SMCS), Pat Simpson (VP), Wes Snyder (RAS), Benjamin Wah (CS), Colin Weil (RIGS), Don Wunsch (SITS), Nomi Feldman and Steve Marlin (MtgMgmt), Ruth Wagner Bennett (Recorder).

Agenda changes:

Video Tutorials (El-Sharkawi) moved to beginning of Standing Committee reports to allow Peter Wiesner from IEEE to speak. Delete Inverse Forum report (Marks). Add Rostov report before Publications Committee. Move elections up to after consent agenda. Discuss council structure and move travel reimbursement to as soon after dinner as appropriate. Add 95 Conference on Evolutionary Computation. Delete VR Workshop (Fukuda).

Consent agenda:

Appointment of TNN Associate Editors
 Appointment of IVHS Committee representative
 Proposal for an IEEE NNC Forum on Virtual Reality and Persons with Disabilities - co-sponsorship (Attachment 1)
 Approved.

For elections, gavel given to Marks, chair of Nominations Committee. Slate on page 76. Since mail ballot vote on new constitution did not happen, elections will take place under old constitution. Patrick Simpson presented as candidate for President. Moved and seconded to close nominations for President. Simpson elected by acclamation. Walter Karplus and Roy Nutter presented as candidates for Vice President. Adjourned to Executive Session with candidates and non-voting people leaving the room. Written ballot taken. Karplus elected. Executive session adjourned. Motion to destroy ballots seconded and passed. Piero Bonissone was presented for treasurer. Moved and seconded to close nominations. Bonissone elected Treasurer by acclamation. Karen Haines and Stamatiou Kartalopoulos presented as candidates were presented for position of Secretary. Adjourned to Executive Session with candidates and non-voting attendees leaving the room. Written ballot taken. Kartalopoulos elected as Secretary. Executive session adjourned. Motion to destroy ballots seconded and passed. Gavel returned to President Eberhart.

Motion to approve Minutes of December, 1992, Phoenix, AZ, (in lilac book), seconded and passed.

Corrections to March, 1993, minutes (Page 12): Strike last sentence on Page 16 "Marks ... plan." Correct spelling throughout to "Kartalopoulos." Add copy of constitution and bylaws as last attachment. Bob Newcomb had Edgar Sanchez represent him by proxy. (Page 15) Student scholarship money is for '93 (not '94). Moved and seconded to accept minutes as corrected and amended. Passed. Comment: Polling is to take place as outlined in minutes.

PRESIDENT'S REPORT - Russ Ebergart

History of meetings in America profitable. Singapore section adsorbed approximately \$6,000, half of loss; Beijing about even; Rostov about \$6,000 loss. The Virtual Reality '94 meeting will be in Raleigh/Durham area; note change in place. Simpson and Eberhart to attend next TAB meeting. Ed Posner was killed about two months ago - he was on original committee. Investigating a way for NNC to recognize him.

VICE PRESIDENT'S REPORT - Pat Simpson

Simpson received registration for NNC logo - can now use trademark symbol. IEEE Young Engineer of the Year Award to Patrick Nunnally who started business using neural networks. Requested a letter of congratulations signed by the President be sent.

SECRETARY'S REPORT - Toshio Fukuda

Nothing to report at this time.

TREASURER'S REPORT - Roy Nutter

IEEE report circulated (attachment 2) Nutter shows \$101,000; IEEE shows deficit. \$300,000 in seed money has been approved for World Conferences. President appointed committee to work with IEEE to resolve the financial status of the Council: Roy Nutter, head; Piero Bonissone; Stamatiou Kartalopoulos; with non-voting members Pat Simpson and Bob Marks. Two past treasurers, Eberhart and Simpson, to work with Nutter committee to be prepared so next budget can be prepared - by October 15. \$87,000 seed money had been requested from IEEE for WCCI, with the additional \$223,000 requested very recently. Nutter expects requests will be refused. Cannot seed World Congress at rate set. Eberhart said only committed about \$35,000

with a total budget outlay of \$85,000 to date instead of \$250,000 for World Congress in an effort to control expenses until financial position is determined. It was pointed out that ExCom, with exception of Marks and Eberhart, are overseeing expenses for World Congress. Nutter asked that minutes show that the treasurer is "super concerned" about the cash flow position. Wunsch requested the minutes reflect concern that Social Implication of Technology Society is a small society and a big bill at the end of the year might have serious ramifications.

PAST PRESIDENT'S REPORT - Bob Marks

Directed by President to draft letter to Helen Woods, IEEE VP, Publications Activities concerning Simpson's review of Kosko's book (see Page 72 with answer on page 73). Further discussion to be held in Publications Committee report. Also directed by President to nominate Dr. Lofti Zadeh for IEEE Medal of Honor (included on Pages 74,75). Dr. Robinson requested minutes to show that he has not read this recommendation letter.

EDITOR'S REPORT - Bob Marks

Letter of explanation from Phyliss Hall regarding delay in printing transactions (Page 88).

TRANSACTIONS ON FUZZY SYSTEMS REPORT - Jim Bezdek

(Page 142 and 143) - Commented on difficulty of getting information from IEEE. Wah to find out who sends him monthly report for Computer Society and forward information to Bezdek and Marks.

NNC NEWSLETTER REPORT - Wes Snyder

Estimated costs for publication are in the ball park. Publications Committee brought to floor motion that (1) The CoNNECTIONS Newsletter ad rates be increased by 5 per cent and (2) Advertisements for IEEE Conferences which are not sponsored or co-sponsored by NNC should receive a 40 per cent discount. Passed.

VIDEO TUTORIAL REPORT - Mohamed El-Sharkawi

Written report distributed (attachment 3) Pioneer Series and Fuzzy Series - plan was to break even in 3 years. Looking at all titles they are about breaking even. Peter Wiesner, from IEEE Educational Activities, was introduced and he described relationship with Council. After sales of 150 get money back and make small profit plus profit from further sales. Already the Fuzzy Series has made \$3K and NN Pioneer Series may break even by February. Spent \$18k, got \$17k back. Agreement must be signed. Suggested promoting video tapes in newsletter - Wiesner to submit material to Snyder. Possible topic of Genetic Algorithms vs Evolutionary Computation - suggested it could be filmed in Orlando.

STANDING COMMITTEE REPORTS

AWARDS COMMITTEE

Brad Dickinson has not been active recently. David Wilshaw has not received his Pioneer award. Karen Haines appointed as interim chair of the Awards Committee. She will follow through on Wilshaw's award.

EDUCATION COMMITTEE - Karen Haines

\$5k in budget for student awards in 1993. Guidelines set for application by students; 13 applications received. Names will be drawn for students to receive awards. Nagoya '93 IJCNN has awarded 7 students awards for conference. Question as to Conference Committee making awards and Education Committee. Conference can use student volunteers. For Education Committee Award it must be the sole award for particular conference.

FELLOWS COMMITTEE - report not received.

MEETINGS COMMITTEE - Jim Bezdek

(Page 89) FUZZ-IEEE '93 San Francisco, CA expects profits of \$110-120K. 1230 attendance. Guidelines for NNC meetings for contractual services. Motion: Simpson may expend up to \$400 to have NNC Guidelines for contractual services transcribed and edited. Passed.

Motion: Jacek Zurada's (Symposium Coordinator for WCCI '94) wife, be hired as an Administrative Assistant, subject to the constraints itemized in letter dated 9/16/93 to R. Eberhart, for WCCI '94. Passed.

IJCNN '93, Nagoya, Japan - Fukuda - IEEE book broker is buying 900 (or 950) copies of proceedings to be sold at approximately \$63 resulting in about \$54k profit to the Council.

Rostov - Marks - Copy of final report submitted to be put in minutes. (attachment 4)

Question of where final reports should be kept. Eberhart has copies of final reports and will pass on to Simpson. To be discussed: will Haines be historian and then keep records?

Power Forum '93 - El-Sharkawi - International Conference on Expert System Application to Power Systems (ESAP) merging with International Forum on Applications of Neural Networks to Power Systems (ANNPS). Conference to be called International Conference on Intelligent System Application to Power Systems (ISAP) to be held September 94 in Montpellier, France.

Signal Processing Society - Atlas - Workshop in Baltimore in 1993 about 150 attendees. '94 Workshop, subject to approval by IEEE Signal Processing Board, to be in Greece, partially funded by ARPA.

Following motion failed in NNC Meetings Committee meeting: The NNC amend budget of WCCI (Page 118) to allow Orlando Section of the IEEE Section to receive 5 per cent of the profit, but have no responsibility for potential loses. Robinson: I move that the Previous AdCom Motion (San Francisco, 3/27/93) Page 17 dealing with the approval of the budget for WCCI '94 be amended to state that the Orlando Section be given a 5% stake in the profits of WCCI '94 and a zero percent stake in the loss. Defeated. Robinson abstained. Comment: We want to work with them in a collegial way - how to do this needs to be determined.

REPORTS

VRAIS '93 - Caudell - Tutorials have been a great success with good surplus. Need more walk-ins to break even. A very young field and sponsoring was risky. 320 signed up. There is seed money (~~90k~~) from this conference to be returned. (Taking place the weekend of this meeting)

IEEE/Tsukuba International Workshop on Advanced Robotics (pg. 103). 1994 IEEE/Nagoya University World Wisemen/women Workshop (pg. 110) Both have received technical co-sponsorshi from Meetings Committee.

WCCI - three conferences simultaneously with one registration fee, attend any technical sessions but receive only one proceedings (or all for \$100). WCCI will put one 2 1/2 hour symposium daily.

Motion by Newcomb, seconded. Moved that the Council approve authorization for the WCCI '94 conference committee to provide complimentary registration to 12 members of the Executive Committee of WCCI '94. Motion passed. Newcomb, Robinson, Eberhart, Marks, Haines abstained.

IEEE Workshop on Robot and Human Communication. Meetings Committee granted

Jacek

Not True

80k

technical co-sponsorship.

VRAIS '94 budget which had been distributed at last meeting was distributed again. (attachment 5) Has \$10,000 seed money. Discussion deferred till after dinner.

FUZZ-IEEE '95 - Motion: To approve budget (page 29). Passed.

CIFE - Conference proposed for April 1993, NYC. Passed by Meetings Committee and moved that it be brought to AdCom. Motion: That Scott Mathews be appointed as Organizing Committee Chair and John Marshall as General Committee Chair for CIFE. Motion that conference loans for CIFE (pages 132-134) amended to \$41,600 from IEEE and \$10,400 from IAFE for a total of \$52,000 with a reduction of \$8K to both total receipts and total expenses with 80% from IEEE and 20% from IAFE. Mathews passed out proposal (attachment 6) and presented report. After extensive discussion, it was moved to postpone vote on the motions until after dinner.

FUZZ-IEEE Systems 1996 - Motion to approve the budget (pg. 135) Passed.

WCCI '97 (Pg. 25) Motion to approve budget. Moved to table budget question until next AdCom. Passed. Motion by Simpson: San Diego section is approved for a 10% split of surplus (or deficit) in the 1997 WCCI. It is also recognized that the SD Section will provide 10% of seed money. Passed.

Moved that we set aside \$4,000 seed money for WCCI '97. Moved to table the motion: Passed.

Motion: Create a subcommittee to study an ICNN '95. Suggest Marks, Fukuda and Simpson on the committee. Passed.

Motion: For EC '95 Conference in Perth. Budget issues tabled until after dinner.

Motion: NNC create a Technical Committee on Evolutionary Computation. Passed.

VRAIS, CIFE, EC '95 conference, to be discussed after dinner.

PUBLICATIONS COMMITTEE - Kartalopoulos
Correction on Page 2 for Kartalopoulos: cross out phone number in () and correct e-mail address to svk@hotmail.com.

Royalty \$3404.59. Eight books in progress; more in proposal state.
Issues: 1. Book sponsoring activity increases rapidly (2) a technical book review requires a lot of time (3) Hard to find reviewers (4) Interaction with IEEE Press expected to increase to "almost" a full time job (5) Many phone calls and correspondence paid from personal funds (6) Committee in its present structure cannot cope with load and/or expenses.

Motion: Approve \$1.2K 1993 and \$3K for 1994 for secretarial and other incidental expenses. Passed.

Motion: Appoint "NC Non-periodicals Editorial Board" (by Chair, approved by President) to maintain and solicit book reviewers and also coordinate book reviews and evaluate book proposals. Passed.

Motion: (Page 144) Approve mandatory page charges for the IEEE Transactions on Neural Networks of \$125 per journal page in excess of ten pages for full papers and in excess of five journal pages for brief papers. Passed. Letters not addressed by the motion.

Simpson left the room for the discussion of the following motion.

Motion: The Publications Committee recommends that AdCom directs the TNN Editor to write a letter to the Chair of IEEE Publications Board cc IEEE President and President-elect indicating that the review of Dr. Kosko's book (Pages 72 & 73) will be published in the November '93 TNN issue unless explicitly prohibited by the President of IEEE. One opposed, one abstain. Passed.

Motion (Pages 142-143): To approve 1994 Budget for the IEEE Transactions on Fuzzy Systems. Passed. (Note 10K for '94 for Ed. Exp. on Page 143)

Motion (Pages 145-150): To approve Journal on Applied Computational Intelligence. Appendix B and C distributed with figures for pages and covers increased to 480 (rather than 352 pages on pgs 145-150) and member rate from \$15 to \$18. Passed. Wah, Atlas, Robinson abstained. Eberhart will take to TAB in November. Should be reviewed next year for accuracy of projections.

6:35 - Recess for dinner called to reconvene at 7:35.

7:40 Meeting reconvened.

VRAIS 94 Budget. Motion to approve VRAIS 94 budget which was approved by NNC Meetings Committee in March, 1993, was tabled to Seattle. Motion to approve the VRAIS 94 budget was amended: seed money to be released by ExCom on October 15 subject to availability (as determined by the AdHoc Finance Committee). Passed.

Motion to approve budget (Page 33) ICNN '95 changing seed money from 50K to 35K, adding dates of conference as Oct. 23-25, 1995. Passed.

NNC VR Technical Committee (p. 151) motion: The NNC approves the attached constitution and bylaws for the TAB Virtual Reality Committee and directs that the NNC President bring this motion to TAB at the November, 1993, TAB meeting. Passed. Intent is that all VR activities including VRAIS, Forum on VR and Persons with Disabilities and any other activities are covered by this motion. Any monies invested by NNC for VR will be returned by the TAB committee to the Council.

All conferences that NNC sponsors or co-sponsors include Proceedings.

STANDARDS COMMITTEE - Walter Karplus
Report distributed "Computational Intelligence Standards: Motivation, Current Activities and Progress." (Attachment 7)

Motion by Charles Robinson: Whereas the NNC has benefited from active participation in AdCom of the its representatives; whereas Member Societies and employers of AdCom representatives are encouraged to support fully the travel of their representative to the NNC AdCom; and whereas such support is not available to some representatives; I move that NNC AdCom members whose travel expenses are not supported by their employers or member societies, and who document this lack of support to the Treasurer; can request reimbursement of up to \$800 a year for their expenses to attend the NNC AdCom, and that NNC officers will be reimbursed for total reasonable and justified expenses as long as the total reimbursement per year to all officers does not exceed the budgeted amount. Moved by Bob Newcomb that motion be amended so that the amount in the motion be amended to \$1,000. Amendment is defeated (by hand vote). Wah moved, seconded, that the amount in the motion be amended to \$1,600 per society. Friendly amendment by Eberhart any decisions to be made by President of the Society. Defeated (by hand vote). Moved by Marks and seconded to remove to (AdHoc Financial) committee. Intent is that this be brought back to AdCom rather than ExCom. Passed (by hand vote).

Robinson moved that the New Constitution and By Laws be adopted.
For information: Changes officier structure of Council: added Executive VP, three Vice Presidents; corrections of typos; part of the lavender book of March, 1993. Passed. 4 abstentions.

CIFE proposal removed from table. An amended budget was presented with the initial seed money from NNC to be \$7,000 with \$20,000 to come in second quarter of 1994 after review of the Council finances. The organizer has agreed to try hard to get financial backing from business and industry. \$7,000 be allocated for planning of conference with concept of conference announced after issuance of \$7,000. Call for papers to come after \$20,000 has been allocated. Motion: \$7,000 seed money with \$20,000 second quarter of 1994 subject to approval of budget. Defeated. Motion, seconded, to approve the conference, details of the budget to worked out by a committee appointed by the chair. Defeated. Motion by El-Sharkawi, seconded: Approve the concept of the conference and the organization committee. Revisit after the AdHoc Financial Committee has had an opportunity to review finances. Passed unanimously.

EC '95 in Perth expect about 200 participants (attachment 8). Motion to approve budget for Evolutionary Conference '95 in Perth requesting \$35,000 seed money by October 1994. Simpson moved to amend motion, seconded: Approve EC organization committee approving \$5,000 seed money and postponing consideration of the budget until January.

Eberhart stated that participants have got to understand that all monies passed in this meeting were passed dependent upon outcome of financial review of the Council. All seed money granted in this meeting are contingent upon the financial review of the Council.

Question called. Amendment passed unanimously. Question on original motion called. Nutter, nay; Brown abstains. Passed.

Regional Interest Groups motion: That \$1,000 be allotted to the Rigs Committee as a whole to support its activities. Friendly amendment to postpone consideration until January. Passed. Motion: That \$1,000 for each of the Australian RIGS, for a total of \$3,000, be allotted for travel expenses for Professor Lendaris, Profess Zurada, and Professor Stone to be keynote speakers at ANZIIS'93 Conference. Friendly amendment of allotting \$600 each, for a total of \$1,800. Defeated. Saeks abstained.

Bob Newcomb raised the question about the difference of money received from videos and books. Eberhardt to look into.

Next AdCom Meeting January 22, 1994. Place to be determined, teleconference vs. in-person meeting to be investigated.

Motion expressed thanks from Council to outgoing officiers for their service.

Motion to adjourn at 10:30 pm. Passed.

Submitted by Ruth Wagner Bennett, Recorder

*Approved on Consent!
Agenda*

PROPOSAL
FOR AN IEEE NNC FORUM
ON VIRTUAL REALITY AND PERSONS WITH DISABILITIES

submitted by
Harry Murphy, Ed.D.
Office of Disabled Student Services
California State University Northridge

endorsed by
Russell C. Eberhart, Ph.D., President
IEEE Neural Networks Council

INTRODUCTION

This is a proposal for the IEEE Neural Networks Council to co-sponsor with California State University, Northridge, a forum, called the Forum on Virtual Reality and Persons with Disabilities. It is scheduled to be held June 9-10, 1994, at the San Francisco Airport Marriott Hotel. It is anticipated that it will be held annually, and that IEEE co-sponsorship will continue.

BACKGROUND

In June 1993, California State University, Northridge, sponsored the first Symposium on Virtual Reality and Persons with Disabilities. Organizing and chairing the meeting was Dr. Harry Murphy, Director of the Center on Disabilities at Cal State Northridge, and an experienced researcher in the field of rehabilitation technology. In the planning stages in late 1992, it was hoped that 20 papers might be accepted, and that up to 150 persons might attend. Final attendance was approximately 300, and 40 papers were presented. The meeting was a resounding success technically, and was in the black financially.

Various options for IEEE involvement in the 1994 meeting were discussed at the June 1993 event. In late August 1993, the Planning Committee for the 1994 meeting discussed IEEE involvement, and voted to propose that the IEEE Neural Networks Council co-sponsor it as an IEEE NNC Forum. The IEEE Engineering in Medicine and Biology Society is also being approached to participate in the meeting, probably by being "in cooperation with" the 1994 event. Dr. Gerry Harris (EMBS President) and Dr. Janie Fouke (EMBS Vice President for Meetings) have expressed in interest in pursuing EMBS participation at their next AdCom.

OBJECTIVES OF THE FORUM

The subject matter of the forum lies at the intersection of two communities: the disabled community and the virtual reality technology community. This is the only meeting in North America addressing this specific topic.

The primary objective of this forum, therefore, is to provide a mechanism for these two communities to meet and share results of research, development and commercialization in the field. Another objective is to provide a peer-reviewed archive for this work by means

of the proceedings, and to disseminate the information by means of IEEE sales of proceedings. The objectives will be attained by holding tutorials, technical sessions, panels and exhibits.

Tutorials will provide in-depth treatment of subjects of interest to participants new to the field. Since there are really two fields represented (disabled persons and VR technology), the tutorials will enable practitioners to learn about each other's fields, facilitating cross-fertilization of ideas. Tutorials being considered include VR for Non-programmers, and Assistive Technologies for Persons with Disabilities.

Technical session tracks will be similar to a combination of what would be expected from a VR technology meeting, and a meeting on technology for the disabled. A common thread running through the sessions is the issue of affordability. A disabled user cannot afford a one-million dollar head-mounted display or a ten thousand dollar glove.

The manufacturer's panel was a popular event in 1993 and will probably be held again in 1994. At this panel, various developers of VR systems summarized the state of the technology, especially as relevant to possible applications for the disabled. Other panels being considered include: 1) Use of VR and VR-related technologies as communication devices, 2) Access considerations in VR, and, 3) Employment of qualified persons with disabilities in the VR industry.

The exhibits, although small in number in 1993 (about a dozen), were always well attended (sometimes they were jammed). The decision to continue the exhibits has been made, and it is probable that 15-20 exhibitors will reserve space in 1994.

FORUM MANAGEMENT

Dr. Harry Murphy will serve as General Chairman of the Forum. Dr. Russ Eberhart will serve on the Organizing Committee, and will be the liaison with the IEEE Neural Networks Council.

Other members of the Organizing Committee are:

Dr. Joel Orr, Virtual Worlds Society
Dr. Walter Greenleaf, Greenleaf Medical Systems
Ben Delaney, CyberEdge Journal
Michael Evans, CyberEdge Journal (PR)
Dr. Deborah Gilden, Smith Kettlewell Eye Research Institute
Ed Rogers, California State Dept. of Rehabilitation

The forum will be run by the Organizing Committee in accordance with IEEE conference guidelines. A preliminary budget is attached.

IEEE TECHNICAL ACTIVITIES

SUMMARY FINANCIAL REPORT FOR IEEE SPONSORED OR COSPONSORED CONFERENCES

1. Full title of conference: Forum on Virtual Reality and Persons with Disabilities
2. Dates of conference: June 9-10, 1994
3. Location of conference: San Francisco Airport Marriott Hotel, Burlingame, CA
4. Type of report: Budget
5. All income and expense figures are in U. S. dollars

| INCOME | Budget |
|-----------------------------------|-----------|
| 6. Registration fees | \$88,500 |
| 7. Conference publication sales | \$ 4,000 |
| 8. Exhibits | \$ 6,000 |
| 9. Social functions | \$ 500 |
| 10. All other conference receipts | \$ 0 |
| 11. Total conference income | \$99,000 |
| 12. Conference loans | \$ 5,000 |
| 13. Total receipts | \$104,000 |

| EXPENSE | Budget |
|-----------------------------------|----------|
| 14. Promotion | \$35,000 |
| 15. Conference publications | \$ 7,500 |
| 16. Exhibits | \$ 4,000 |
| 17. Social functions | \$18,000 |
| 18. Administration | \$14,500 |
| 19. All other conference expenses | \$ 6,000 |
| 20. Total conference expense | \$85,000 |
| 21. Loan repayments | \$ 5,000 |
| 22. Total outlays | \$90,000 |

SURPLUS/LOSS

23. Total receipts (13) \$104,000 Total outlays (22) \$90,000
25. Surplus (Loss) (23-24) \$14,000 surplus

POST-CONFERENCE DISTRIBUTION Surplus (loss) in 25 to be distributed as follows:

| Cosponsor entity | % share | \$ distributed |
|-------------------------------|---------|----------------|
| a. Neural Networks Council | 50 | |
| b. Cal State Univ. Northridge | 50 | |

CONFERENCE FINANCIAL INSTITUTION

Name of bank: Imperial Bank

Address: Northridge, CA

Conference account title: TBD

Account No.: TBD

Have you requested IEEE conference insurance? No, but it will be requested

SUBMITTED BY:

Name: Harry J. Murphy Tel.: 818-885-2578 Email: vfoao073@vax.csun.edu

Address: California State University, 18111 Nordhoff Street, Northridge, CA 91330

Conference position: General Chairman

Conference signature _____

Society Signature _____

Russell C. Eckhart
President, NNC

Date: _____

Return to: IEEE Conference Services, 445 Hoes Lane, PO Box 1331, Piscataway, NJ 08855-1331

Keep a copy for your records

IEEE TECHNICAL ACTIVITIES
IEEE CONFERENCE INFORMATION SCHEDULE

1. Full title of conference: Forum on Virtual Reality and Persons with Disabilities
2. Dates of conference: June 9-10, 1994
3. Location of conference: San Francisco Airport Marriott Hotel
4. Estimated attendance: 350
5. Exhibits? Yes
6. Will there be a conference publication? Yes
If yes, check one: conference record other (explain) _____
7. Identify IEEE entity or entities involved as either Sponsor, Co-Sponsor, Participating or Cooperating and the percentage of involvement.

| Entity | Type of involvement | Percentage |
|------------------------------|---------------------|------------|
| IEEE Neural Networks Council | CS | 50% |

Identify non-IEEE entity or entities involved and the percentage of involvement.

| Entity | Type of involvement | Percentage |
|---|---------------------|------------|
| California State University, Northridge | CS | 50 |

8. Has the section within whose geographical boundaries the Conference is being held been notified?
No, but they will be contacted.
If yes, who was contacted? Name: _____ Section: _____
9. Has an IEEE insurance form been submitted? No but it will be submitted.

ADMINISTRATION

For the following conference officers, enter first name, middle initial and last name, plus complete address and telephone number.

CONFERENCE CHAIRMAN Harry J. Murphy Tel. No.: 818-885-2578
Address: Center on Disabilities, California State University, 18111 Nordhoff St., Northridge, CA 91330
Fax no.

INFORMATION CONTACT: Same as above Tel.: _____
Address

Fax no.

COMMITTEE MEMBERS

If available, please attach to this form a complete list of Conference Committee members, their titles, addresses, and telephone numbers.

SUBMITTED BY: Harry J. Murphy Tel. No.: 818-885-2578
Address: California State University, 18111 Nordhoff St., Northridge, CA 91330
Fax no.
Conference position: General Chairman

SIGNATURE

Date: September 16, 1993

Return to IEEE Conference Services, 445 Hoes Lane, P.O. Box 1331, Piscataway, NJ 08855-1331
FAX 908-562-1571

Keep a copy for your records

Harry J. Murphy
Founder and Director
CENTER ON DISABILITIES
California State University, Northridge

Harry Murphy holds a master's degree in leadership from California State University, Northridge and an Ed. D. degree from the University of Southern California.

He has been a teacher of the deaf, a researcher in deafness, a principal of a school for the deaf, administrator of an educational support service unit for deaf university students at California State University, Northridge, a trainer for the Grantsmanship Center (trained 3,000 people in 39 states), and Director of the Office of Disabled Student Services at CSUN as well. In May of 1993, the university formed a CENTER ON DISABILITIES to recognize efforts in student support services, conferencing, research and training.

He founded and currently directs the largest conference of its kind in the world, "Technology and Persons with Disabilities," which in March of 1993 (eighth annual event) drew 2,200 participants, including 300+ speakers and 120 exhibitors from all over the U. S., and 25 foreign countries. He conducted the "Voice Input/Output and Persons with Disabilities" meeting in Palm Springs, California in October of 1991 which resulted in a set of national priorities for this field. In June of 1993 he conducted the "Virtual Reality and Persons with Disabilities" conference in San Francisco.

As Founder and Director of the CENTER ON DISABILITIES, he is authorized to conduct conferences in this country and abroad. The CSUN conference on technology and disabilities is the model for similar conferences in Europe, Australia, New Zealand and Hong Kong. Dr. Murphy has traveled widely to support the development of these conferences, has keynoted them, and served as a member of their planning and program committees.

The "Virtual Reality and Disabilities" conference is the model for the Nordic Conference on the same subject, to be held in Stockholm in late October of 1993. Dr. Murphy will keynote that conference.

Research Triangle Institute

RTI

P. O. Box 12194, Research Triangle Park, NC 27709

Russell C. Eberhart, Director
Biomedical Engineering
Email: rce@rti.rti.org
Tel: 919-541-7123
Fax: 919-541-8746

September 17, 1993

Dr. James Bezdek, Chair
IEEE Neural Networks Council Meetings Committee
Sheraton Seattle Hotel
Seattle, Washington

Dear Bez,

This letter is to endorse the proposal for IEEE NNC co-sponsorship of the 1994 Forum on Virtual Reality for Persons with Disabilities being submitted by Dr. Harry Murphy of California State University, Northridge. Dr. Murphy is an internationally-recognized expert in rehabilitation technology and services. He is also well known for his ability to organize and run successful conferences. The annual conference on technology for the disabled, known as "The Northridge Conference," is recognized world-wide as Harry's brain child. I look forward to actively supporting Dr. Murphy and the Forum Organizing Committee, and know that NNC support will enhance what is already a successful meeting.

Very truly yours,



Russell C. Eberhart
President
IEEE Neural Networks Council

Copy of IEEE but not copy of the matter under it.

IEEE Educational Activities and the IEEE Neural Networks Council Video Program

BACKGROUND

The Neural Networks Council Video Tutorial Program was started in an effort to expand the reach of the tutorials being developed for conferences regarding emerging technologies like fuzzy logic, neural networks and virtual reality.

In 1992, under the direction of Video Chair, Mohamed El-Sharkawi, the IEEE Neural Networks Council (NNC) cosponsored two tutorial programs with the IEEE Educational Activities Department. The NNC funded \$9,000 for the production of *The Theory and Applications of Fuzzy Logic* (6 tutorial programs), as well as \$9,000 for the production of three tutorials known as the *1992 Neural Networks Pioneer Series*.

Each of these programs was recorded in a studio setting by a professional video company in an effort to maximize the production quality. The Educational Activities Department at IEEE assumed responsibility for developing this video resource: working with the tutorial presenters and video producers as well as marketing and distribution of the final products.

PROMOTION

Our current marketing efforts have focused largely on direct mail which IEEE Marketing deems most cost-effective. In addition, the videos were listed in the IEEE Publications Catalog, Publications Bulletin (which goes to special libraries), and flyers distributed at various IEEE meetings like the International Conference on Neural Networks and the International Conference on Fuzzy Systems.

To date, targeted ad placement has occurred in The Institute and in the IEEE Transactions on Neural Networks, the IEEE Transactions on Fuzzy Systems as well as the CoNNECTIONS Newsletter. Ads have also been provided upon request in a variety of IEEE publications on a space available basis.

In addition to ads, we have placed product announcements in the Spectrum's Reader Services Guide. We also encourage editorial reviews of video programs for publication in newsletters, magazines and transactions.

SALES AND FINANCES

In exchange for the production seed money provided by the NNC in 1992, the IEEE Educational Activities Department has agreed to pay royalties based on the number of units sold and the total dollar amount of investment per project. (See more detailed information in attached viewgraph).

As of July 31, 1993 the NNC can expect a return of \$12,400 for *The Theory and Applications of Fuzzy Logic* (6 tutorial programs) and \$4,100 for *1992 Neural Networks Pioneer Series* (3 tutorial programs), making a total return of \$16,500 on an initial investment of \$18,000. At this rate, the NNC can expect an approximate return of \$25,000 on its investment over a two-year period.

FUTURE - Product Development

In 1993 the NNC will fund up to \$20,000 for the production of the following programs:

- * Digital Neural Networks (series)
- * Virtual Reality (series)
- * Neural Networks and the Control of Dynamic Systems (single program)

A royalty schedule similar to the one for the 1992 projects will be developed for the 1993 productions.

FUTURE - Marketing

The Educational Activities is currently reviewing the marketing plan with the IEEE Marketing Department which is coordinating advertising and promotion. In 1994, the following areas will be given special attention:

1. Encouraging the NNC to promote the videos through its conferences and publication. Ideally, order forms should be in the conference registration packets.
2. Work with Sections and Societies to promote the videos as a chapter resource. This would include special offers to sections and chapters interested in developing library programs (see attachment).
3. Expanding usage of tapes in universities. Currently, an agreement with the Association for Media-Based Continuing Education for Engineers (AMCEE) will expand our reach to both universities and corporations.
4. Penetrating the reseller distribution channel to reach the corporate/university training departments and librarians.
5. Investigating funding sources to support export of programs to developing countries.

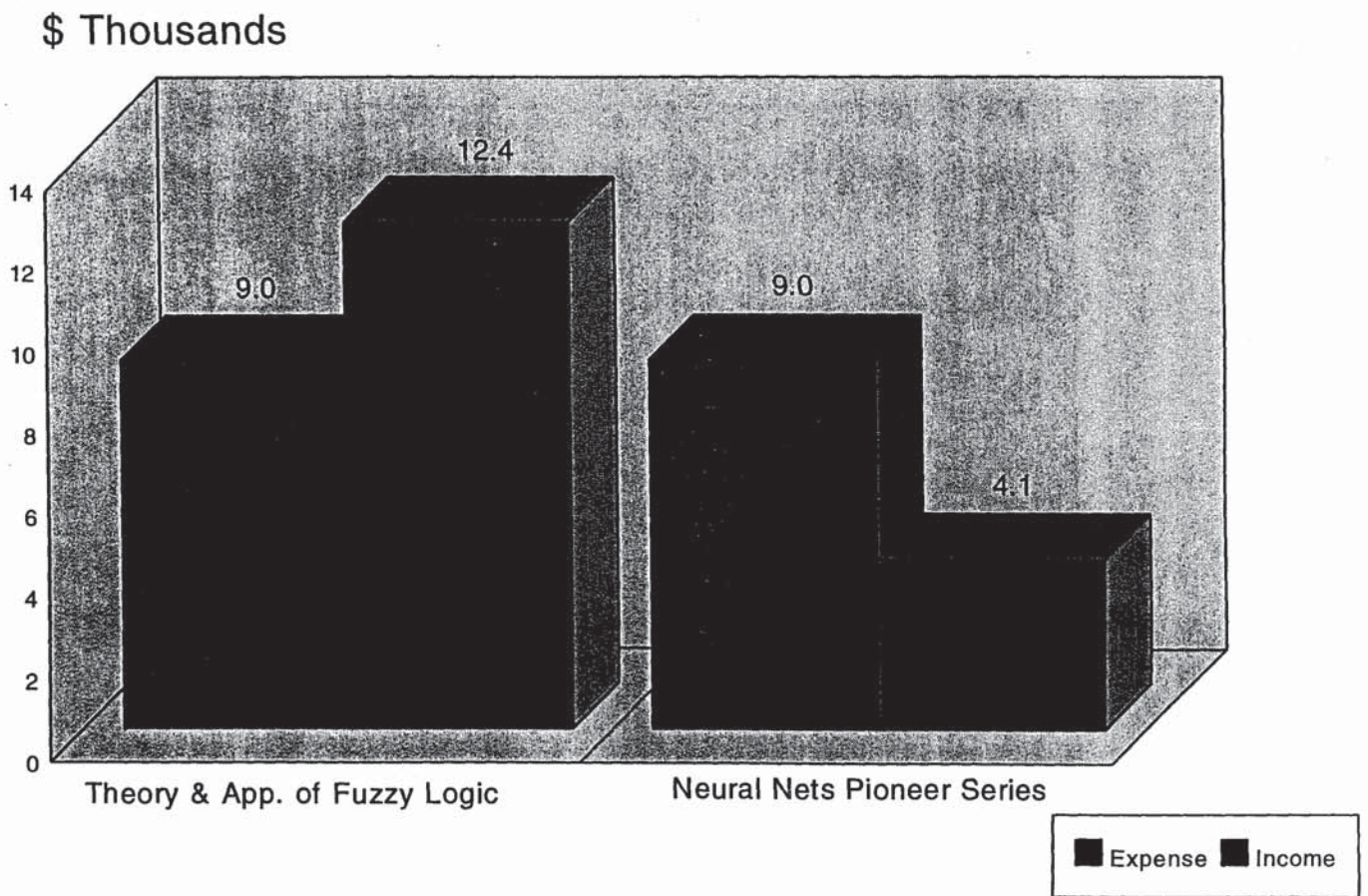
Neural Networks Council
Video Tutorial Program

Title: Neural Networks Pioneer Series

| | |
|-------------------|--|
| Investment | \$9K (3 Titles) |
| Royalties | \$20.00/Copy (First 150 units per title sold) |
| | \$16.00/Copy (Each additional unit) |

* **Units = $\frac{\text{Net Revenue}}{\text{Member Price}}$**

Neural Networks Council Video Tutorial Program Expense and Revenue (1992 - July 31, 1993)



FUZZY LOGIC AND NEURAL NETWORKS: Clips from the Field



*Sponsored by the IEEE Neural Networks Council,
the Second IEEE International Conference on
Fuzzy Systems and the 1993 IEEE International
Conference on Neural Networks*



This program consists of video clips documenting significant achievements and current advances in the fields of fuzzy logic and neural networks. Intended to supplement the conference proceedings, the video format is able to show applications not easily conveyed through printed media. As such, it is the first of a series of "video proceedings" to be developed by the IEEE Neural Networks Council.

Hosted by Enrique Ruspini, Aviv Bergman, and Alessandro Saffiotti, this program includes clips that present well-known pioneering applications. An example of this is shown in the video as reinforcement learning in fuzzy logic is currently being applied to the rendezvous and docking operations of the space shuttle with a spacecraft in space. Other clips deal with results from ongoing projects which are expected to play an important role in the control of power systems, industrial plants, robotic systems and other applications.

Invited contributions by renowned authors:

Bernard Widrow, Stanford University; Teuvo Kohonen, Helsinki University of Technology; Akira Iwata and Yutaka Ino, Nagoya Institute of Technology; L.V. Meisel and M. Johnson, Benet Laboratories, Watervliet Arsenal; Jung Kim, Insook Kim, University of Southwestern Louisiana; Nicolas Helft, KurtKonolige, John Lowrance, Daniela Musto, Karen Myers, Enrique H. Ruspini, Alessandro Saffiotti, and Leonard Wesley, Artificial Intelligence Center, SRI International; Takeshi Yamakawa, Kyushu Institute of Technology; Kaoru Hirota, Yokou Kyo, Hosei University; Masayuki Ohtani, Naoyoshi Yubazaki, Mycom, Inc.; B.G. Song R.J. Marks II, S. Oh, P. Arabshahi, T.P. Caudell, J.J. Choi, University of Washington and Boeing Aircraft Co.; A. Adelhoff, R. Felix, A. Hoffman, S. Reddig, University of Dortmund Fuzzy Demonstration Center; Jean-Pierre Aurrand-Lions and Elie Sanchez, Mediterranean Institute of Technology; Marie de Saint Blancard and Philippe Jarri, PSA Peugeot Citroen; Toru Yamaguchi, Tomohiro Takagi, Kenji Doya, Totomu Mita, Laboratory for International Fuzzy Engineering (LIFE); Michio Sugeno, Tokyo Institute of Technology; Hamid R. Berenji, NASA Ames Research Center

Fuzzy Logic and Neural Networks: Clips from the Field is available for \$120.00 IEEE Member, \$150.00 List (use product # HV0330-1, ISBN 0-7803-0366-0). To order call 1-800-678-IEEE or fax 908-981-9667.

Be sure to add the latest in fuzzy logic and neural network applications to your video library. Order today!

For more information about Fuzzy Logic and Neural Networks videos, contact Beth Babeu Murray at 908-562-5499.



The Institute of Electrical and Electronics Engineers, Inc.

New Video Tutorials from IEEE Educational Activities...

VIRTUAL REALITY

*Sponsored by the IEEE Neural Networks Council
Recorded live at the VRAIS '93 Conference*



Topics include:

Overview of Virtual Reality

Presented by Thomas Caudell, University of New Mexico

Basic Phenomena of Vision (Fundamentals)

Presented by Thomas P. Piantanida, SRI International

Psychophysics And Technology of Virtual Acoustic Displays (Fundamentals)

*Presented by Elizabeth M. Wenzel, NASA Ames Research Center
and Scott H. Foster, Crystal River Engineering, Inc.*

Force Reflecting Interfaces to Teleoperators and Virtual Environments (Fundamentals)

*Presented by Edward Colgate, Northwestern University and
Blake Hannaford, University of Washington*

Introduction to Virtual Reality (Systems & Applications)

Presented by Henry A. Sowizral, Boeing Computer Services

Virtual Reality Architecture for Distributed, Multi-User Environments (Systems & Applications)

Presented by Reza Jalili, IBM TJ Watson Center

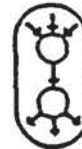
Applying Virtual Environment Technology for Training and Simulation (Systems & Applications)

Presented by Hans Jense, Fysisch en Elektronisch Laboratorium TNO

Videos will be available in early 1994. For more detailed product information, contact Beth Babeu Murray at the IEEE Educational Activities Department by phone at (908) 562-5499, by fax at 908-981-1686, or by e-mail at b.babeu@ieee.org.



NEURAL NETWORKS COUNCIL



Robert J. Marks II
Past President

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July 29, 1993

Russell C. Eberhart, President
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Roy S. Nutter, Jr., Treasurer
IEEE Neural Networks Council
West Virginia University
821 Electrical Engineering
P.O. Box 6101
Morgantown, WV 26506

On behalf of the Organizing Committee of the IEEE/RNNS Symposium on Neuroinformatics & Neurocomputers held in October 1992 in Rostov-on-Don, Russia, I submit the enclosed final report for the conference.

All originals, including receipts not copied for this report, have been sent to Dr. Nutter.

By this letter, I ask that Dr. Eberhart include this report in the mailing to the IEEE AdCom for its September meeting in Seattle.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. Marks II', with a long horizontal stroke extending to the right.

Robert J. Marks, International Chair
IEEE Transactions on Neural Networks

cc: Witali Dunin-Barkowski, Chair
Wes Snyder, Technical Chair
Dmitry Kaplan, Finance Chair

“From Russia ...With Hope”

Wesley E. Snyder

Wake Forest University Bowman Gray School of Medicine
Newsletter Editor

In October, I had the pleasure of being the program chair for the first (hopefully of many) Joint Symposium on Neuroinformatics and Neurocomputers, sponsored by the IEEE Neural Networks Council and the Russian Neural Networks Society. The conference was held in Rostov-on-Don, Russia, a lovely city on the shores of the Don River, about 1000 km south of Moscow.

Our travel was amazingly uneventful — the customs official didn't even blink at my three large boxes of proceedings, and the ride on Aeroflot from Moscow to Rostov was smooth and on time.

The technical content of the conference was outstanding! The conventional wisdom that the Russians are excellent mathematicians but don't have access to good computing equipment is more-or-less correct. I consider it a good conference when I hear one excellent paper, with results which I find exciting. In this conference, I heard four such papers! All the presentations were in English, and for the most part, I had no difficulty in following the pronunciations.

Congratulations and thanks are due to many people: Witali Dunin-Barkowski, the general chair, and his colleagues in Russia; Bob Marks, former NNC president and current editor of the *Transactions on Neural Networks*; who was international chair; Dmitry Kaplan of the University of Washington who handled the (very complicated) finances of the conference, and doubled as translator and guide for Bob and me; all those who served on the program committee and reviewed papers; and my secretary, Carla Stout, who put in a lot of hours at a very busy time.

As far as life in Russia is concerned, I came away from the trip with a great sense of confidence and optimism. Life is going to be hard for the Russians, but I feel that they

will persevere, and come up with a successful economy and democratic form of government. I also came away with a sense of anger at what 50 years of communism has done to an intelligent, congenial, and sensitive people.

Even though Carl Marx supported the “labor theory of value”, the current system has NO theory of value. If you ask how much something costs, the response you may get is “how much would you like it to cost?”— remember, prices and costs have been uncorrelated for 50 years. They also have no legal system to deal with the potential abuses of a free market system. The average man-on-the-street knows what a monopoly is (I assume they study it in school), but the more subtle forms of monopoly, e.g. price fixing, are not well understood and not incorporated into the legal system.

Russian entrepreneurs, however, are starting to figure out these concepts, and in the absence of appropriate laws and enforcement, to take advantage of these opportunities. I heard much about the “Russian mafia” in this context, and was unable to distinguish between activities which were illegal and those that were unethical (of course, maybe we

Westerners shouldn't make that distinction either).

I remember as a schoolboy in the fifties practicing for what to do in the event of nuclear attack -- sit on the floor beside my desk, away from the window, put my head between my knees-- etc. in case the “Godless Russians” attacked. And symmetrically, I am sure the Russians had their drills in case the “Imperialistic Americans” attacked. After growing up in such a world, to walk across Red Square, to stroll the grounds and visit the churches of the Moscow Kremlin, and to have frank and open technical discussions with Russian scientists was the thrill of a lifetime. The trip would have been great even without the conference; and the success of the conference made it that much better.

The proceedings will be available from the IEEE or, at least for the moment, the conference still has a few copies left for sale. Send Email to carla@relito.medeng.wfu.edu if you are interested.



Witali Dunin-Barkowski, Director of the A. B. Kogan Research Institute for Neurocybernetics at Rostov State University, Rostov-on-Don, Russia; Dmitry Kaplan, Wesley Snyder, Bob Marks, and Boris M. Vladimirsky, deputy director of the Kogan Institute.

December 1992 4

The RNNS/IEEE Symposium on

Neuroinformatics and Neurocomputers

Rostov-on-Don, Russia

October 7-10, 1992



РОСТОВ-на-ДОНУ



RNNS
RUSSIAN
NEURAL NETWORKS
SOCIETY

The RNNS/IEEE Symposium on

Neuroinformatics and Neurocomputers

Rostov-on-Don, Russia

October 7-10, 1992

Sponsored by the Russian Neural Networks Society and
the IEEE Neural Networks Council

**1992 RNNS/IEEE Symposium on Neuroinformatics and Neurocomputers
Rostov-on-Don**

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A. Petrov
A. Suhov
V. Taubkin
V. Zuckerman

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11:30 Plenary talk - R. Hecht-Nielsen

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| A dualism of neural networks Lavrenjuk, A., <i>Tomsk, Russia</i> | 1156 |
| Neuron ensemble as a unit of information handling Chorayan, O., <i>Rostov-on-Don, Russia</i> | 1163 |
| A neural network parallel algorithm for ramsey numbers Takefuji, Y., Tsuchiya, K., <i>Cleveland, OH, USA</i> | 1166 |
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Saturday, Oct. 10

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9:00 - 11:00 Plenary talk - A. Samarin and Yu. Gavrillev
11:00-12:00 Panel
12:00- Closing ceremony
13:00-22:00 Culture program

Please note that there has been an error in the Plenary Talks scheduled for Saturday, October 10, 1992.

M. Ito will speak from 9:00 a.m. to 10:00 a.m.

A. Samarin and Yu. Gavrillev will speak from 10:00 a.m. to 11:00 a.m.

We apologize for any inconvenience.

RNNS/IEEE 1992

Final Financial Report

Prepared by: Dmitry Kaplan (finance chair)

Expenses

Throughout this document, we will be referring to document marked MR1 -- MR11 -- these are the M(ain) (R)eceipts enclosed at the end of this document.

| Category | Initial budget (based on 50 non-former Soviet Union participants) | Amount from the Preliminary report: | Actual amount |
|---|---|--|---|
| Transportation to/from airport on Moscow, guidance and food in Moscow | \$2,500 | \$600 | \$810 We were charged \$30 each way for each foreigner that took advantage of this service. A total of 27 trips. <ul style="list-style-type: none"> • (MR2) The receipt for the \$300 of that was given to us by the DIANA agency • (MR3) \$300 was acknowledged • (MR1) DB refers to the \$600 from (MR2) and (MR3) and requests the payment of \$210 additional. |
| Airport transport in Rostov, service in airport | \$600 | \$204 | \$204 based on 17 foreigners @ \$12 each See (MR1) |
| Secretarial | \$300 | \$300 | \$300 See (MR4) from Wes Snyder |
| Symposium paraphenalia | \$500 | \$170 based on 17 foreigners @ \$10 each Full amount is covered on DB's receipt. | \$170 Covered in Item 2 of (MR3) and referred to in (MR1) |
| Building and room rental | \$1,000 | \$340 | \$340 based on 17 foreigners @ \$20 each. (MR3) Somehow we have managed to only pay \$330 of that to DB in Russia (MR1) \$340 figure is found there |

| | | | |
|---|---------|------------|---|
| Equipment rental | \$300 | \$102 | \$102 based on 17 foreigners @ \$6 each see (MR1) |
| Ship rental | \$500 | \$170 | \$0 based on 17 foreigners @ \$10 each Hey, what can I say... He forgot about this one... |
| Comminucation mail, phone, shipping, etc. | \$1,000 | \$623.35 | \$568.35 <ul style="list-style-type: none"> • (MR5) \$236 -- shipping of proceedings from Greensboro to Moscow • (MR6 -- page4) \$55 -- shipping from Moscow to Rostov (dmitry has been re-inbursed in full) • (MR4) \$332.35 Wes Snyder's phone expenses |
| Bus rental in Rostov | \$640 | \$217 | \$217 based on 17 foreigners @ \$12.80 see (MR1) |
| Coffee and food | \$1,000 | \$340 | \$340 based on 17 foreigners @ \$20 see (MR1) |
| Reception on October 7 | \$0 | \$0 | \$119 based on 17 foreigners @ \$7 see (MR1) |
| Committee Dinner on Oct 9 | \$0 | \$0 | \$48 based on 4 participants @ \$12 see (MR1) |
| Abstracts printing | \$3,000 | \$5,320.58 | \$5320.58 <p style="margin-left: 20px;">\$120.58 is still due Wes Snyder</p> <p>(MR6) \$5200 was reimbursed to Dmitry (MR5) \$120.58 additional paid to Wes Snyder to cover the difference.</p> |
| Invited Speakers | \$7,500 | \$4,000 | \$2,000 (MR7) Only Ito billed. (Robert Hecht-Nielsen never billed) |
| Reserve | \$1,000 | \$0 | \$0 |

| | | | |
|---------------------------------------|--------------------|--------------------|--|
| Conference Travel | \$9000 | \$6602.32 | \$6926.12 <ul style="list-style-type: none"> • (MR5) -- \$2065.92 Wes Snyder • (MR8) -- \$1974.20 Bob • (MR9) -- \$109 Bob additional • (the actual bill is for \$258, but \$149 of that was included in the payment to Dmitry on MR6 • (MR6) \$2777 (including bob's additional \$149). |
| Reinbursement for opening the account | \$0 | \$0 | \$100 see (MR6) |
| Publicity expenses | \$1800 | \$2384.26 | \$2384.26 <ul style="list-style-type: none"> • (MR11) \$384.26 Wes Snyder call for papers • (MR10) \$2000 to Connections for two full-page ads |
| Bank Charges | \$0 | \$0 | \$100 (est) |
| TOTAL EXPENSES | \$30,640.00 | \$21,373.51 | \$20,049 |

Income

| Category | Initial budget (based on 50 non-Former Soviet Union participants) | Actual amount and detail |
|---------------------|---|--------------------------|
| Advance | \$0 | \$11,000 |
| Book Broker | \$0 | \$3,855.50 |
| Registration | \$12,500 | \$5,544 |
| TOTAL INCOME | \$12,500 | \$20,400 |

Money in the bank: \$2,360
 Of which, we need to pay Ito \$2,000

Leaving: \$360g

As far as the NNC is concerned, the conference lost \$11,000 (advance) - \$360 (check) = \$10,640

Checks written on this account:

| | | |
|------|--------|---|
| 0001 | \$5200 | Printing of Proceedings |
| 0002 | \$ 220 | hotel pre-payment refund to david andes |
| 0003 | \$ 100 | meals pre-payment refund to robert damper |
| 0004 | \$ 100 | meals pre-payment refund to andersen |
| 0005 | \$ 100 | meals pre-payment refund to sutoshi |
| 0006 | \$ 140 | bob marks reimbursement for the \$140 loan to pay db in rostov |
| 0007 | \$ 85 | bob damper refund for hotel overpayment |
| 0008 | \$8077 | refund of conference expenses to dmitry |
| 0009 | \$1974 | refund of conference expenses to bob |
| 0010 | \$2422 | wes snyder -- conference trave + shipping proceedings + abstract printing |
| 0011 | \$ 300 | wes snyder -- secretarial |
| 0012 | \$ 332 | wes snyder -- phones |
| 0013 | \$1250 | dunin barkowski -- 1040 for the rest of expenses + 210 for transportation |
| 0014 | \$ 109 | bob marks -- hotel in copenhagen |
| 0015 | \$2000 | connections magazine -- for two ads |
| 0016 | \$ 384 | wes snyder (newsletters) |
| xxxx | \$2000 | Reinbursement to Ito -- this will be a Cashier's check. |



NEURAL NETWORKS COUNCIL



Robert J. Marks II
Past President

July 28, 1993

Marilyn J. Prusan, Finance Administrator
IEEE TAB
445 Hoes Lane
P.O. Box 1331
Piscataway, NJ 08855-1331

PLEASE REPLY TO:
Interactive Systems Design Laboratory
Department of Electrical Engineering, FT-10
University of Washington
Seattle, WA 98198 USA
Tel: (206) 543-6990 (O)
Tel: (206) 776-8995 (H)
Fax: (206) 543-3842
e-mail: marks@milton.u.washington.edu

Dear Marilyn,

Enclosed is Cashier's check for \$330.43 which closes the account for the IEEE/RNNS Symposium on Neuroinformatics held last October in Rostov-on-Don.

Please deposit the check in the account of the IEEE Neural Networks Council.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. Marks'.

Robert J. Marks, Editor-in-Chief
IEEE Transactions on Neural Networks

cc: Russ Eberhart, NNC President
Roy Nutter, NNC Treasurer

| | | | |
|---|--|--|--|
| | | 1407004 <small>19-10 308 1250</small> | |
| U.S. BANK OF WASHINGTON, NATIONAL ASSOCIATION HEAD OFFICE, SEATTLE, WASHINGTON | | | |
| CASHIER'S CHECK | | | |
| PURCHASER <u>IEEE/RNNS SYMPOSIUM ON NEURINFORMATICS</u> | | 7-26 1993 OB | |
| Pay To The Order Of * * * * * <u>IEEE NNC</u> * * * * * \$ * <u>330.43</u> * * * * * | | | |
| U.S. BANK OF WASH. H.A. 330 AND 43 CTS | | | |
| <small>NOTICE TO CUSTOMER The purchase of an indemnity bond may be required before any official check of this Bank will be replaced in the event it is lost, misplaced or stolen.</small> | | <i>Ona Beterlorzer</i> AUTHORIZED SIGNATURE ONA BETERLÖRZER - CUSTOMER SERVICE | |

12-186 WA 12/87

⑈ 1407004 ⑆ ⑆ 1250001051: 3086 111113 ⑆

ТОВАРИЩЕСТВО С ОГРАНИЧЕННОЙ
ОТВЕТСТВЕННОСТЬЮ

"ДИОНА"



121002 Москва, Б. Могильцевский пер., д.4
тел. 923 - 78 - 93

4, Bolshoy Mogiltsevsky alley, Moscow 121002
tel: 923 - 78 - 93

В период проведения Международного симпозиума "Нейроинформатика и нейрокомпьютерика-92", проходившего в г. Ростове-на-Дону в период с 07 по 10 октября 1992 года, фирма "ДИОНА" обеспечила комплексное сервисное обслуживание/встречи-проводы, переводческие и экскурсионные услуги, транспортные услуги, питание/участникам симпозиума из ряда стран при движении их через Москву в Ростов-на-Дону и обратно.

- | | | |
|---------------|-----------------------------|---|
| 1. 04 октября | 1. Shinichi Tamira /Япония/ | - |
| | 2. Kozo Okazaki /Япония/ | - |
| 2. 05 октября | 1. Marks Robert /США/ | - |
| | 2. Snyder Wesley /США/ | - |
| | 3. Kaplan Dm. /США/ | - |
| | 4. Andes D /США/ | - |
| | 5. Faure Alan /Франция/ | - |
| | 6. Fabrice Druaux /Франция/ | - |
| | 7. Mark Storka /Франция/ | - |
| 3. 06 октября | 1. Ito Masao /Япония/ | - |
| | 2. Jirina M. /Чехословакия/ | - |
| | 3. Andersen J. /Дания/ | - |
| | 4. Wunch D /США/ | - |
| 4. 08 октября | 1. K. Cheung /Гонг Конг/ | - |
| 5. 10 октября | 1. Marks Robert /США/ | - |
| | 2. Snyder Wesley /США/ | - |
| | 3. Kaplan Dm. /США/ | - |
| | 4. Fujita Satoshi /Япония/ | - |
| 6. 11 октября | 1. Andes D. /США/ | - |
| | 2. Ito Masao /Япония/ | - |
| | 3. Shinichi Tamira /Япония/ | - |
| | 4. Kozo Okazaki /Япония/ | - |
| | 5. Jirina M. /Чехословакия/ | - |

DIONA

ТОВАРИЩЕСТВО С ОГРАНИЧЕННОЙ
ОТВЕТСТВЕННОСТЬЮ

"ДИОНА"



121002 Москва, Б. Могильцевский пер., д.4
тел. 923 - 78 - 93

4, Bolshoy Mogiltsevsky alley, Moscow 121002
tel: 923 - 78 - 93

-2-

| | | |
|----------|-----------------------------|---|
| | 6. Фауре Жан /Франция/ | - |
| | 7. Фа Вресе Дмисх /Франция/ | - |
| | 8. Маск Стойка /Франция/ | - |
| | 9. Andersen M /Дания/ | - |
| 12.10.92 | I. Robert Vambon /Англия/ | - |

За выполненное комплексное/сервисное/ обслуживание участни-
ков Международного симпозиума фирма "ДИОНА" получила в наличной
форме 300 (триста) долл. США
от организационного комитета симпозиума.

Президент

"__" октября 1992 года г.Москва

А.И.Рыбаков

Министерство науки, высшей школы
и технической политики
Российской Федерации

Ростовский государственный
университет

НАУЧНО-ИССЛЕДОВАТЕЛЬСКИЙ
ИНСТИТУТ НЕЙРОКИБЕРНЕТИКИ
им. А. Б. КОГАНА

344104, г. Ростов-на-Дону,
пр. Стачки, 194/1.
Телефон 28-05-77

№ _____
На № _____ от _____

Receipt

- This acknowledges the receipt of
- 1) \$300 for shuttle services in Moscow after the Symposium;
 - 2) \$170 for Symposium bags and other favors
 - 3) \$330 for building and room rents

Symposium Chair

W. Danin-Barkowski,

Director, AB Kogan research institute
for Neurocybernetics.

(MRI)

Р С Ф С Р
Министерство высшего и среднего
специального образования

Ростовский государственный
университет

НАУЧНО-ИССЛЕДОВАТЕЛЬСКИЙ
ИНСТИТУТ НЕЙРОКИБЕРНЕТИКИ

V.L. Dunin-Barkowski, Director
344104, г. Ростов-на-Дону, пр-т Стачки, 194/1
+7-863-2-Телефон 28-05-88

5.12.92 № _____

На № _____ от _____

Dr. Dmitry Kaplan
Siemens Quantum, Inc.,
Treasurer, RNNS/IEEE
Symposium on Neuroinformatics and
Neurocomputers
FAX: +1-206-391-9161

Dear Dr. D.Kaplan:

This letter serves for official confirmation of our preliminary agreement on financial problems, connected with the RNNS/IEEE Symposium on Neuroinformatics and Neurocomputers, Rostov-on-Don, Russia, October 7 - October 10, 1992.

According to oral agreement between the IEEE NNC and RNNS the hard currency budget of the Symposium have been provided by the IEEE side and the ruble budget have been provided by the RNNS.

So, all the registration fee in hard currency have been accumulated by the IEEE and the registration fee in rubles have been accumulated by the RNNS.

At the meeting of IEEE and RNNS representatives - R.Marks, W.Snyder, D.Kaplan and W.Dunin-Barkowski, - on October 9-th in Rostov-on-Don further details have been discussed as follows.

Both sides have agreed that it is necessary to cover certain hard currency expenses of the Russian side by the IEEE side in order to sustain the possibilities to hold meetings like the Symposium in future.

The list of the payments of the IEEE side to RNNS, discussed in details at the meeting in Rostov now follows.

I. The transportation between the airports in Moscow.
The figure of \$30 USD for transportation of one foreign participant in one direction have been adopted by the both sides. The total number of one-direction transportations by the RNNS hired service was 27 (a list of the transportations have been presented by the service to D.Kaplan). The IEEE have already paid \$600 USD.

Тип. Ростоблисполкома. Зак. № 1087-5000. 22.5.90.

So the RNNS side still needs

\$ 210 USD

This sum can be transferred to the RNNS side in the following way:

Through Bank of Credit Lyonnais, New York, USA, for credit to the
Bank for Foreign Trade of RF, Moscow, account number

01.226711.001.00,

for further credit to the Commercial Agroprombank of RF,
Rostov-on-Don, account number

073.00000.15,

for Center "Internauka", account number

070125.

2. Rostov airport transportation:

17 participants x 12\$ = 204 \$.

3. Symposium paraphernalia (bag, badge, etc.):

17 participants x 10\$ = 170 \$.

4. Building & Room ^(& ship) Rent for the Symposium

17 participants x 20\$ = 340 \$.

5. Equipment rental

17 participants x 6 \$ = 102 \$.

6. Rostov bus

17 participants x 12.76 \$ = 217 \$.

7. Coffee at breaks & lunch at the ship board

17 participants x 20 \$ = 340 \$.

8. Reception on October 7

17 participants x 7 \$ = 119 \$.

9. Committee Dinner on October 9

4 participants x 12 \$ = 48 \$.

Total (without no. 1) 1540 \$

Already received by RNNS side 500 \$

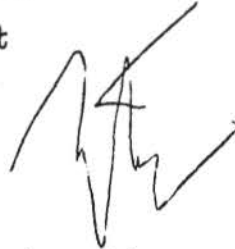
Remains to be paid by IEEE side 1040 \$ on positions

2 - 9 of the present list and 210 \$ on position 1.

The way for transferring \$210 is pointed in no.1 above.

The preferable form for obtaining the IO40 \$ for RNNS is handing the cash to RNNS President (now - W. Dunin-Barkowski) by an IEEE NNC representative or handing the cash to a person, specially authorised for this action by RNNS President.

Sincerely yours,
Symposium Chair
RNNS President

A handwritten signature in black ink, appearing to be 'W. Dunin-Barkowski', written in a cursive style.

W. Dunin-Barkowski

ТОВАРИЩЕСТВО С ОГРАНИЧЕННОЙ
ОТВЕТСТВЕННОСТЬЮ

"ДИОНА"

DIONA Co., Ltd

121002 Москва, Б. Могильцевский пер., д.4
тел. 923 - 78 - 93

4, Bolshoy Mogiltsevsky alley, Moscow 121002
tel: 923 - 78 - 93

Обеспечение комплексного
сервисного обслуживания
участников симпозиума

октября 1992 года

г. Москва
РФ СНГ

Фирма "ДИОНА" в период проведения Международного симпозиума "Нейроинформатика и нейрокомпьютика" в г. Ростове-на-Дону с 07 октября по 10 октября 1992 года обеспечило комплексное сервисное обслуживание/встречи-проводы в аэропортах, транспортное и экскурсионное обслуживание, питание/зарубежных участников симпозиума при их движении и нахождении в Москве в период с 04 по 12 октября 1992г.

За выполненный объем комплексного сервисного обслуживания Организационный комитет симпозиума оплатил фирме "ДИОНА" в наличной форме 300 (триста) _____ долл. США.

Президент



А. И. Рыбаков

DIONA

MARK4

Rowman Gray School of
Medicine

Department of Radiology

Medical Center Blvd.

Winston-Salem, NC 27157-1022

919-716-6890

FAX 919-716-2870

MEMO: July 29, 1992

TO: Dmitry Kaplan

FROM: Wesley Snyder *Wesley Snyder*

RE: Reimbursement for phone calls

CC: Robert Marks

This is to request reimbursement for phone calls made from my home phone concerning the Russian Neural Networks Symposium.

| | | |
|-------------|------------|----------|
| Feb 28 | USSR | 1.85 |
| Feb 28 | USSR | 2.25 |
| March 10 | USSR | 2.25 |
| March 10 | USSR | 8.28 |
| March 17 | USSR | 2.25 |
| March 17 | USSR | 2.25 |
| March 20 | USSR | 1.85 |
| April 15 | Seattle | .15 |
| April 15 | Seattle | .15 |
| April 15 | Seattle | .62 |
| April 15 | Halls Lake | 2.32 |
| April 15 | Conf. | 85.65 |
| May 20 | Conf. | 126.64 |
| Jun 17 | Conf. | 66.74 |
| subtotal | | \$303.25 |
| Federal tax | | 9.39 |
| State tax | | 19.71 |
| TOTAL | | 332.35 |

+ \$300

Secretaria

MRI

Р С Ф С Р
Министерство высшего и среднего
специального образования
Ростовский государственный
университет
НАУЧНО-ИССЛЕДОВАТЕЛЬСКИЙ
ИНСТИТУТ НЕЙРОКИБЕРНЕТИКИ
W.L. Dunin-Barkowski, Director
344104, г. Ростов-на-Дону, пр-т Стачки, 194/1
+7-863-2-Телефон 28-05-88

Dr. Dmitry Kaplan
Siemens Quantum, Inc.,
Treasurer, RNNS/IEEE
Symposium on Neuroinformatics and
Neurocomputers
FAX: +1-206-391-9161

5.12.92 № _____

На № _____ от _____

Dear Dr. D.Kaplan:

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Already received by RNNS side 500 \$

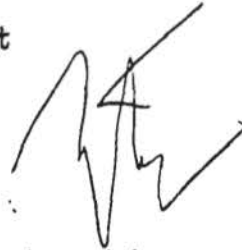
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Sincerely yours,
Symposium Chair
RNNS President

A handwritten signature in black ink, appearing to be 'W. Dunin-Barkowski', written in a cursive style.

W. Dunin-Barkowski

*paid w
check 10
for 13/92*

The Bowman Gray
School of Medicine

Department of Radiology

November 4, 1992

Dmitry Kaplan
3819 165th Place SE
Bellevue, WA 98008-5859

Dear Dmitry:

Enclosed are receipts and a request for reimbursement for expenses incurred as program chair of the RNNS/IEEE Russian conference.

| | |
|--|------------------------|
| Two round trips - personal car - to and from airport (120 miles) | 30.00 |
| Round trip airfare - Greensboro/Moscow | 1390.00 |
| Shipping of proceedings - Greensboro to Moscow | 236.00 <i>separate</i> |
| Hotel in Moscow | 258.20 |
| Dinner in Moscow | 30.72 |
| Round trip airfare - Moscow/Rostov | 178.00 |
| Hotel in Copenhagen (745 DKK) | 149.00 |
| Visa expense | 30.00 |
| Balance of printer expense for proceedings | 120.58 <i>separate</i> |
| Total | 2422.50 |

Please remit as soon as possible. If you have any questions, please don't hesitate to call me. Thank you for your cooperation in this matter.

Sincerely,




Wesley E. Snyder, Ph.D.
Professor

AMRS

Orin's Russia Trip Reimbursement:

| | |
|--|-------------------|
| 1) air ticket to/from Copenhagen/Moscow | \$ 1492.00 |
| 2) air ticket to/from Moscow/Rostov | \$ 178.00 |
| 3) hotel in Moscow | \$ 258.20 |
| 4) hotel in Rostov (\$170 + \$560) includes pay for others | \$ 680.00 |
| 5) hotel in Copenhagen | \$ 149.00 |
| 6) Taxi in Copenhagen (100.00 = \$20) | \$ 20.00 |
| 7) previous loans (\$5200 + \$1000 on 7/10) | \$ 5300.00 |
| TOTAL: | \$ 8077.20 |

8077 = \$149 error - due to bob marks
 \$560 - hotel payment for others
 + \$5300 - loans
 +

22-141 50 SHEETS
 22-142 100 SHEETS
 22-144 200 SHEETS


MR7

ITO'S
travel

1992 RNNS/IEEE Symposium on Neuroinformatics

c/o Dmitry Kaplan

3819 165th Place SE

Belleme WA 98008 - 5859

U. S. A

23 November 1992

Dear Sir,

I participated to the 1992 RNNS/IEEE Symposium on Neuroinformatics held in Rostov-on-Don on 7-10 October 1992. I certainly enjoyed the symposium and my stay in Rostov-on-Don.

The organizer, Dr. Duni-Barkowsky, told me that my travel expense will be reimbursed by IEEE within the limit of US\$2000 on presenting relevant document. This time, I made a round trip through New York, and the total cost of my air trip amounts to 678,980 Japanese yen as shown in a copy of my ticket herewith enclosed. I asked my travel agency to give an air fare just for return trip to Rostov-on-Don from Tokyo, which amounts to 525,300 Japanese yen, as herewith also attached. These exceeds the limit of US2000, and therefore I like to claim the sum of US\$2000 for reimbursement. Should a cheque be sent to me at Frontier Research Program, RIKEN, Wako, Saitama 351-01, Japan (Fax: 81-484-62-4697), I should be very much obliged to you.

Sincerely yours,



Masao Ito

Director General



IEEE

MRS

READ INSTRUCTIONS ON REVERSE SIDE OF YELLOW COPY AND REFER TO
 IEEE TRAVEL REIMBURSEMENT MANUAL BEFORE COMPLETING THIS FORM

part check 0009
 10/21 1992

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.
 EXPENSE REPORT FOR PERIOD ENDING

TRAVELING IN CAPACITY OF (CHECK ONE)

(NAME)
 Robert J. Marks II
 (ADDRESS TO SEND CHECK)
 Dept of EE - FI - 10
 University of Washington
 Seattle, WA 98195

- MEMBER OF IEEE STAFF (Dept.)
- MEMBER OF IEEE BD. OF DIRECTORS/EXECUTIVE COMM.
- IEEE REGIONAL DIRECTOR
- IEEE STANDING BOARD OR COMMITTEE REPRESENTATIVE
 Past President - Neural Network Council
 (Name of Board or Committee)

TRIP AUTHORIZATION NO.

PURPOSE OF TRIP - NOTE EACH DAY'S ACTIVITY

PROVIDE DETAILS AND FULL SUPPORT ON ITEMS (1), THROUGH (5)

Travel
 Travel
 Travel adjustment day - needed to obtain cheapest airf
 1992 RNNS/IEEE Symposium on Neuroinformatics
 Travel
 Travel

| DETAILS | DATE | 10/4 | 10/5 | 10/6 XX | 10/7,8,9 | 10/10 | 10/11 | TOTAL EXPENSE | CHARGED DIRECT TO IEEE (5) |
|-------------------------------------|------|---------|--------|--------------------|----------|-------------|---------|---------------|----------------------------|
| | TOWN | Seattle | Moscow | Rostov | Rostov | Copen-hagen | Seattle | | |
| PERSONAL AUTO MILEAGE | | | | | | | | | |
| TRANSPORTATION TOLLS - PARKING | | | | | | | | | |
| MILEAGE ALLOWANCE | | | | | | | | | |
| TAXI - BUS SEE REVERSE SIDE (1) | | 21 00 | | | | | 21 00 | 42 00 | |
| PLANE - TRAIN - AUTO RENTAL | | 1492 00 | | 178 | | | | 1670 00 | |
| LODGING/SELF | | | | 258 20 | | | | 258 20 | |
| MEALS/SELF SEE REVERSE SIDE (2) | | | | | | | | | |
| OFFICIAL GUEST SEE REVERSE SIDE (3) | | | | | | | | | |
| MISCELLANEOUS TEL. & TEL. | | | | | | | | | |
| TIPS - GRATUITIES | | 2 00 | | | | | 2 00 | 4 00 | |
| OTHER (4) | | | | | | | | | |
| TOTAL EXPENSE | | 1515 00 | | 436 20 | | | 23 00 | 1974 20 | |

PROVIDE DETAILS BELOW AND ATTACH FULL SUPPORT ON ITEMS (4) AND (5).

LESS CHARGED DIRECT TO IEEE

LESS ADVANCE FROM IEEE

BALANCE DUE FROM (TO) IEEE

1974 20

An addendum will be filed when other charges come (5) through on American Express

ACCOUNT NO.

AMOUNT

SIGNATURE

DATE

APPROVAL

DATE

APPROVAL

DATE

\$

AMOUNT OF CHECK

BELOW FOR ACCOUNTING DEPT. USE ONLY

DISTRIBUTED BY

APPROVED BY

ADDENDUM to Report
 Of 10/21/92
 11/24/92 19

READ INSTRUCTIONS ON REVERSE SIDE OF YELLOW COPY AND REFER TO
 IEEE TRAVEL REIMBURSEMENT MANUAL BEFORE COMPLETING THIS FORM

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.
 EXPENSE REPORT FOR PERIOD ENDING

IEEE

TRAVELING IN CAPACITY OF (CHECK ONE)

- MEMBER OF IEEE STAFF _____ (Dept.)
- MEMBER OF IEEE BD. OF DIRECTORS/EXECUTIVE COMM.
- IEEE REGIONAL DIRECTOR
- IEEE STANDING BOARD OR COMMITTEE REPRESENTATIVE
- SOCIETY OFFICER
 Past President - Neural Network Council
 (Name of Board, Committee or Society)

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|--|
| NAME | | | | | | | | | | | | | | | | | | | | | | | | | |
| R | o | b | e | r | t | | J | | M | a | r | k | s | | I | I | | | | | | | | | |
| (ADDRESS TO SEND CHECK) | | | | | | | | | | | | | | | | | | | | | | | | | |
| D | e | p | t | | o | f | E | E | | - | | F | I | T | - | 1 | 1 | 0 | | | | | | | |
| U | n | i | v | e | r | s | i | t | y | | o | f | W | a | s | h | i | n | g | t | o | n | | | |
| S | e | a | t | t | l | e | , | W | A | | 9 | 8 | 1 | 9 | 5 | | | | | | | | | | |

TRIP AUTHORIZATION NO. _____ PURPOSE OF TRIP - NOTE EACH DAY'S ACTIVITY _____

PROVIDE DETAILS AND FULL SUPPORT ON ITEMS (1), THROUGH (5)

| DETAILS | DATE | TOWN | TOTAL EXPENSE | CHARGED DIRECT TO IEEE (5) |
|--|----------|---------------------|---------------|----------------------------|
| DATE | 10/20/92 | Copenhagen, Denmark | | |
| PERSONAL AUTO MILEAGE | | | | |
| TRANSPORTATION TOLLS - PARKING | | | | |
| MILEAGE ALLOWANCE | | | | |
| TAXI - BUS SEE REVERSE SIDE (1) | | | | |
| PLANE - TRAIN - AUTO RENTAL | | | | |
| LODGING/SELF | 129.26 | | | |
| MEALS/SELF SEE REVERSE SIDE (2) | | | | |
| OFFICIAL GUEST SEE REVERSE SIDE (3) | | | | |
| MISCELLANEOUS TEL. & TEL. | | | | |
| TIPS - GRATUITIES | | | | |
| OTHER (4) | 129.26 | | | |
| TOTAL EXPENSE | 258.20 | | | |

PROVIDE DETAILS BELOW AND ATTACH FULL SUPPORT ON ITEMS (4) AND (5).

(4) Due to currency differences it was easier to put Dmitry Kaplan's hotel room on my charge

(5)

| | |
|-----------------------------|--------|
| LESS CHARGED DIRECT TO IEEE | |
| LESS ADVANCE FROM IEEE | |
| BALANCE DUE FROM (TO) IEEE | 258.20 |

ACCOUNT NO. _____ AMOUNT _____

APPROVAL: *[Signature]* DATE: 11/24/92

APPROVAL: _____ DATE: _____

APPROVAL: _____ DATE: _____

AMOUNT OF CHECK _____

BELOW FOR ACCOUNTING DEPT. USE ONLY

MR II

Wm. Gray School of
Medicine


Department of Radiology

Medical Center Blvd.

Winston-Salem, NC 27157-1022

919-716-6890

FAX 919-716-2870

MEMO: July 29, 1992
TO: Dmitry Kaplan
FROM: Wesley Snyder 
RE: Reimbursement for printing of call for papers
CC: Robert Marks

In March, we printed and the IEEE mailed six thousand copies of the call for papers. The printing cost was \$384.26, which Rosalyn paid. This is to request reimbursement. The receipt is attached. Thank you.



NR10

C nnections

The Newsletter of the IEEE Neural Networks Council

Rosalyn Graham Snyder
Managing Editor, Newsletter

7621 Penland Drive
Clemmons NC 27012
(919)766-6210
roz@relito.medeng.wfu.edu

November 12, 1992

INVOICE

TO Dr. . Dmitry Kaplan
RNNS/IEEE Symposium on Neurocomputing
3819 165th Place SE
Bellevue, WA 98008-5859

| Description | Charge | Paid |
|--|---------------|------|
| Full page advertisement May 1992 | \$1000 | |
| Full page advertisement September 1992 | \$1000 | |
| TOTAL OUTSTANDING | \$2000 | |

Terms: Net 30

Please make check payable to the INSTITUTE of ELECTRICAL AND ELECTRONICS ENGINEERS and send to
Rosalyn Snyder
IEEE Neural Networks Council Newsletter
7621 Penland Drive
Clemmons NC 27012

Please note change of address.

Approved



IEEE TECHNICAL ACTIVITIES

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.
445 HOES LANE, P. O. BOX 1331, PISCATAWAY, NJ 08855-1331, U.S.A. (908) 562-3900 TELEX 833-233 FAX (908) 562-1571

(908) 562-

October 16, 1992

Dmitry Kaplan
3819 165th Place SE
Belleme, WA 98008-5859

RE: Conference: **The RNNS/IEEE Symposium on Neuroinformatics and Neurocomputers**
Conference File: 3414

Dear Mr. Kaplan:

I am pleased to inform you that a check as payment for the above referenced conference proceedings purchased by IEEE, will be coming to you under separate cover within the next few weeks.

In accordance with new guidelines established by the TAB Book Broker Committee in 1991, the following information is the basis of payment:

| | |
|--------------------------|----------------|
| IEEE Catalog # | 92TH0483-8 |
| Editorial Pages: | 1410 |
| Acquisition Cost/Record: | \$70.10 |
| Copies Paid: | 55 |
| Payment: | \$3,855.50 |
| Shipping Reimbursement: | \$not invoiced |
| Total Payment: | \$3,855.50 |

dep Nov 9
~~*dep #1700*~~

Congratulations on your conference. We look forward to working with you in the future.

Sincerely,

Heidi Zazza-Roth
TAB Finance Administrator

8367.80

cc: IEEE sponsors

ITO'S
travel

1992 RNNS/IEEE Symposium on Neuroinformatics
c/o Dmitry Kaplan
3819 165th Place SE
Belleme WA 98008 - 5859
U. S. A

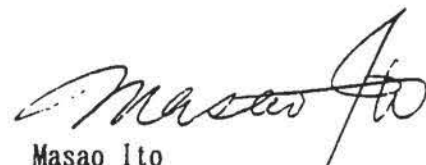
23 November 1992

Dear Sir,

I participated to the 1992 RNNS/IEEE Symposium on Neuroinformatics held in Rostov on Don on 7-10 October 1992. I certainly enjoyed the symposium and my stay in Rostov-on Don.

The organizer, Dr. Duni-Barkowsky, told me that my travel expense will be reimbursed by IEEE within the limit of US\$2000 on presenting relevant document. This time, I made a round trip through New York, and the total cost of my air trip amounts to 678,980 Japanese yen as shown in a copy of my ticket herewith enclosed. I asked my travel agency to give an air fare just for return trip to Rostov-on-Don from Tokyo, which amounts to 525,300 Japanese yen, as herewith also attached. These exceeds the limit of US2000, and therefore I like to claim the sum of US\$2000 for reimbursement. Should a cheque be sent to me at Frontier Research Program, RIKEN, Wako, Saitama 351-01, Japan (Fax: 81-484-62-4697), I should be very much obliged to you.

Sincerely yours,



Masao Ito
Director General

Final expenses

| | |
|----------------------------|-----------|
| Check to Ito | \$2000.49 |
| Bank Print Out of Activity | \$ 24.00 |
| Two Cashiers Checks | \$ 6.00 |

Account Balance (Cashier Check sent to Ms. Prusan) \$330.43

VRAIS 94 Budget

Revised: March 19, 1993

| <u>Source</u> | <u>Amount</u> | <u>INCOME</u> | |
|---------------|------------------|-----------------------|---------------|
| | | <u>Totals to-Date</u> | <u>Totals</u> |
| Registration | \$147,945 | 0 | |
| Publications | 13,000 | 0 | |
| Exhibits | 30,000 | 0 | |
| Tutorials | 40,050 | 0 | |
| Advance | 40,000 | \$5,000 | |
| Total | \$270,995 | | |

| <u>Source</u> | <u>Amount</u> | <u>EXPENSES</u> | |
|--------------------|------------------|-----------------------|---------------|
| | | <u>Totals to-Date</u> | <u>Totals</u> |
| Promotion | \$70,000 | | |
| Publications | 40,000 | | |
| Exhibits | 10,000 | | |
| Social Function | 20,000 | | |
| Administration | 33,000 | | |
| Tutorials | 15,000 | | |
| All Other | 30,000 | | |
| Advance Repayments | 40,000 | | |
| Total | \$258,000 | | |

BUDGET

Surplus **\$12,995**

REGISTRATION FEES

| <u>IEEE Members</u> | <u>CAT</u> | <u>Quantity</u> | | <u>Fee</u> | <u>Budget</u> |
|---------------------------|------------|-----------------|---|------------|------------------|
| - Before 6/1/94 | 1 | 65 | @ | \$275 | \$17,875 |
| - Before 8/1/94 | 2 | 65 | @ | \$325 | \$21,125 |
| - At Conference | 3 | 66 | @ | \$400 | \$26,400 |
| <u>Non-Members</u> | | | | | |
| - Before 6/1/94 | 4 | 48 | @ | \$320 | \$15,360 |
| - Before 8/1/94 | 5 | 48 | @ | \$375 | \$18,000 |
| - At Conference | 6 | 82 | @ | \$450 | \$36,900 |
| <u>Students</u> | | | | | |
| - Before 6/1/94 | 7 | 35 | @ | \$80 | \$2,800 |
| - Before 8/1/94 | 8 | 35 | @ | \$95 | \$3,325 |
| - At Conference | 9 | 56 | @ | \$110 | \$6,160 |
| Total | | 500 | | | \$147,945 |

CONFERENCE PUBLICATION SALES

| <u>SOURCE</u> | <u>CAT</u> | <u>Quantity</u> | | <u>Fee</u> | <u>Budget</u> |
|-------------------|------------|-----------------|---|------------|-----------------|
| IEEE Members | 10 | 11 | @ | \$75 | \$825 |
| Non-Members | 11 | 11 | @ | \$125 | \$1375 |
| IEEE Headquarters | 12 | 432 | @ | \$25 | \$10,800 |
| Total | | | | | \$13,000 |

EXHIBITS

| | <u>CAT</u> | <u>Quantity</u> | | <u>Fee</u> | <u>Budget</u> |
|------------------|------------|-----------------|---|------------|-----------------|
| Booth/Publishers | 13 | 10 | @ | \$600 | \$6,000 |
| Booth/All Others | 14 | 24 | @ | \$1,000 | \$24,000 |
| Total | | 34 | | | \$30,000 |

| <u>ALL OTHERS</u> | | | | | | |
|-------------------|----|------------|---|-------|-----------------|--|
| Tutorial One | 15 | 45 | @ | \$200 | \$9,000 | |
| Tutorial Two | 16 | 45 | @ | \$300 | \$13,500 | |
| Tutorial Three | 17 | 45 | @ | \$390 | \$17,550 | |
| Total | | 135 | | | \$40,050 | |

Seed Money Advance 18

~~\$40,000~~ 10,000

Total

\$40,000

TOTAL INCOME

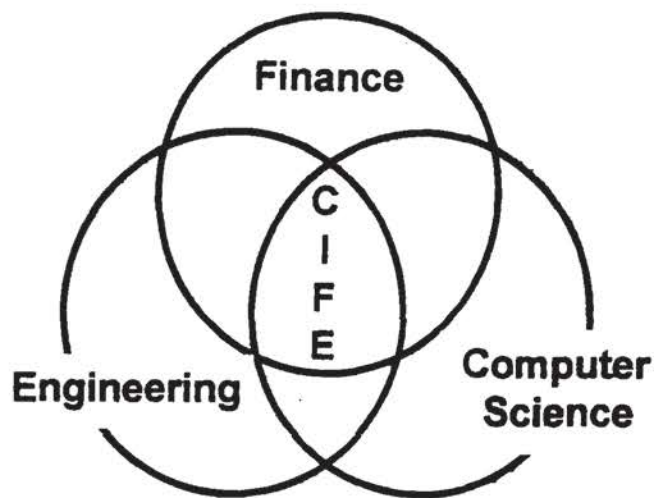
~~\$270,995~~

240,995

*Seed Money Reduced
to 10K in Meetings
Committee*

Conference on
Computational Intelligence for Financial Engineering

The Conference on Computational Intelligence for Financial Engineering provides a forum for free discussion of new ideas, applications, and research, to stimulate and inspire pioneering work in the application of computational intelligence and engineering/mathematical techniques and methods to the problems of finance and investments. Intelligent computational systems are becoming increasingly important in financial applications, particularly in the areas of portfolio management, proprietary trading systems, risk management, and corporate finance. To foster more interdisciplinary work in the applications of intelligent



computational systems to financial engineering, we, the Organizational Committee, propose that the International Association of Financial Engineers (IAFE) and the Neural Networks Council of the Institute of Electrical and Electronics Engineers (IEEE) cosponsor the conference to be held in New York City on April 9-11, 1995. The IAFE seeks to foster the development and the creative application of financial technology to solve problems in finance. The IEEE Neural Networks Council advances and coordinates scientific, literary and educational efforts in the areas of neural networks, fuzzy systems, and other intelligent computational systems.

Topics of Interest

- | | | | |
|---|--|---|---|
| Financial Engineering Applications | <ul style="list-style-type: none"> • Asset Allocation • Forecasting • Risk Arbitrage • Currency Models | <ul style="list-style-type: none"> • Trading Systems • Hedging Strategies • Risk Management • Technical Analysis | <ul style="list-style-type: none"> • Corporate Financing • Options and Futures • Complex Derivatives • Portfolio Management |
| Computer & Engineering Applications & Models | <ul style="list-style-type: none"> • Fuzzy Systems • Chaos Theory • Dynamic Optimization | <ul style="list-style-type: none"> • Neural Networks • Genetic Algorithms • Signal Processing • Harmonic Analysis | <ul style="list-style-type: none"> • Stochastic Processes • Probabilistic Reasoning • Parallel Computing • Time Series Analysis |

- | | |
|--|---|
| General Conference Co-Chairs: International Chair: International Liaison: Program Co-Chairs: Organizational Chair: Tutorial Co-Chairs: Finance Chair: Exhibits Chair: Plenary Chair: Publications Chair: Electronic Publicity: | Dr. John F. Marshall, St. John's University, Finance, Director IAFE Prof. Tomaso A. Poggio, MIT Artificial Intelligence Laboratory Prof. A. N. Refenes, London Business School, Director NeuroForecasting Prof. Toshio Fukuda, Nagoya University, Robo-Informatics & Systems Prof. Andrew W. Lo, MIT Sloan School of Management, Computational Finance Prof. Robert J. Marks, UW, Editor of IEEE Transactions on Neural Networks Scott H. Mathews, MPCV, President, Financial Engineering Computer Services Douglas Stone, Frank Russell Research & Development Dr. Joe R. Brown, MCC, Director Neural Networks Project David Schwartz, Mitsubishi Bank, Sr. V.P. Trading & Risk Management Christine Alan, Motorola, Sr. Financial Analyst, CPA Dr. Steve Piche, MCC, Neural Networks Project Douglas Stone, Frank Russell Research & Development Dr. Don Wunsch, Texas Tech University, Electrical Engineering Dr. James Ritcey, UW, Electrical Engineering |
|--|---|

1993 IEEE Neural Networks Council Document
Robert J. Marks II Library Archive

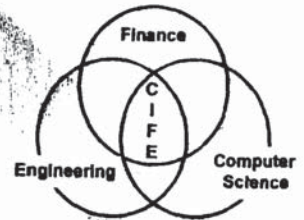
A Joint Proposal to IEEE/NNC and IAFE

**Presented by
Dr. John Marshall,
Scott Mathews,
and
Douglas Stone**

Proposal Overview

- **Conference Topic: Computational Intelligence applied to problems in Finance and Investments**
- **Joint Sponsorship:**
 - 80% by IEEE/NNC The Neural Network Council of The Institute of Electrical and Electronics Engineers
 - 20% by IAFE The International Association of Financial Engineers
- **Seed funding: \$52,000 total**

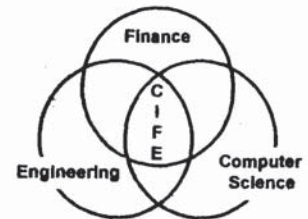
Conference Proposal



IEEE/NNC & IAFE

Conference Overview

- **Title:** Conference on **Computational Intelligence for Financial Engineering (CIFE)**
- **Location:** **Crown Plaza Hotel, New York City (mid-town)**
- **Date:** **April 9-11, 1995**
- **Conference Management:** **Meeting Management, Inc.**
- **Expected Attendance:** **250**



Conference Proposal

IEEE/NNC & IAFE

Call for Conference on Topic

■ Growing application of computational intelligence in finance and investments

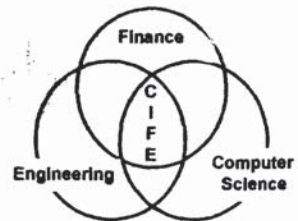
- billions of dollars traded daily by computers
- increasing complexity of financial markets
- the search for higher returns and profits

■ Addresses the needs of emerging alliance

- financial institutions investing heavily in computer technology, but
- most in finance industry have little understanding of technology, so
- hire engineers to create systems, but
- most engineers have little background in sophisticated financial strategies

■ Convergence of professional needs and interests

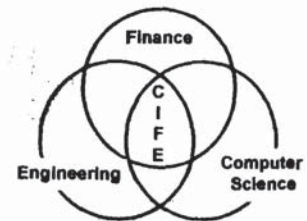
Conference Proposal



IEEE/NEE & IAFE

Financial Engineering

- **FE involves the development and the creative application of financial technology to solve problems in finance**
- **'Engineering' meant the creation and manufacture of new financial securities**
- **Today FE is synergetic combination of finance specialists, computer engineers and mathematicians**



Conference Proposal

IEEE/NNC & IAFE

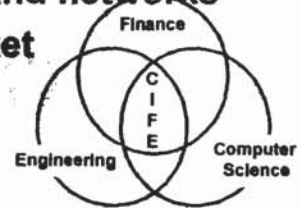
Conference Overview

■ Conference focus

- forum for discussion of ideas and applications in this emerging cross-disciplinary field
- applying good theory to the needs of the practitioners

■ Audience

- financial institutions and investment managers seeking new techniques to increase profits
- academics pursuing research at the convergence of finance, computer science and engineering
- engineers who have been drafted into the field of finance
 - » installing advanced computer systems and networks
 - » creating mathematical algorithms ("rocket scientists")



Conference Proposal

IEEE/NNC & IAFE

Topics of Interest

■ Financial Engineering Applications

Trading Systems
Hedging Strategies
Risk Management
Technical Analysis

Corporate Financing
Options and Futures
Complex Derivatives
Portfolio Management

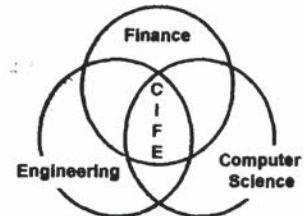
Forecasting
Risk Arbitrage
Currency Models
Asset Allocation

■ Computer & Engineering Applications & Models

Fuzzy Systems
Stochastic Processes
Probabilistic Reasoning
Parallel Computing

Neural Networks
Genetic Algorithms
Dynamic Optimization
Harmonic Analysis

Chaos Theory
Time Series
Signal Processing



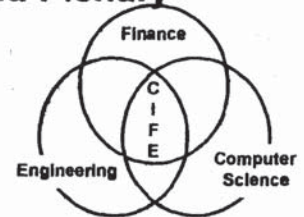
Conference Proposal

IEEE/NNC & IAFE

Conference Schedule

■ Sunday (April 9, 1995)

- five-six tutorials, two-three in morning and three in afternoon
 - » 2 sessions on computational intelligence for financial people
 - » 2 sessions on finance and investment for engineers
 - » 1-2 sessions on applying computational intelligence
- late afternoon social hour
- Chairperson's welcome, opening remarks, and Plenary Speech



Conference Proposal

IEEE/NNC & IAFE

Conference Schedule

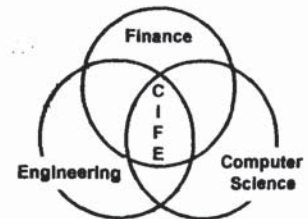
■ Monday (April 10, 1995)

- two parallel sessions
- luncheon and Keynote Address

■ Tuesday (April 11, 1995)

- two parallel sessions
- round-table or panel discussions with practitioners
- conference close in mid- to late-afternoon

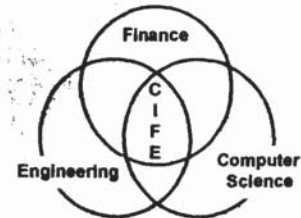
Conference Proposal



IEEE/NNC & IAFE

International Association of Financial Engineers (IAFE)

- **Established in 1991**
- **Currently about 1000 members worldwide**
 - 60% practitioners, 40% academics
 - Board of Directors are practicing, prominent members of finance industry
 - Six Nobel laureates in finance and economics
 - Jack Marshall is Executive Director
- **Journal of Financial Engineering**
- **Second conference in 1993 in NYC**
 - attendance > 300 for two day conference



Conference Proposal

IEEE/NNC & IAFE

Committee Chairs

■ Conference Co-Chairs

- Dr. John F. Marshall, St. John's University, Ex. Director of IAFE
- Prof. Tomaso A. Poggio, MIT Artificial Intelligence Laboratory

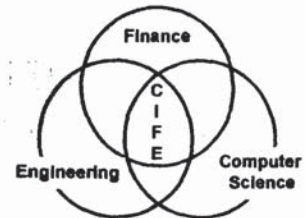
■ International Chairs

- Prof. A. N. Refenes, London Business School, Director of NeuroForecasting
- Prof. Toshio Fukuda, Nagoya University, Robotics & Systems

■ Program Co-Chairs

- Prof. Andrew W. Lo, MIT Sloan School of Management, Computational Finance
- Prof. Robert J. Marks, UW, EE

Conference Proposal



IEEE/NNC & IAFE

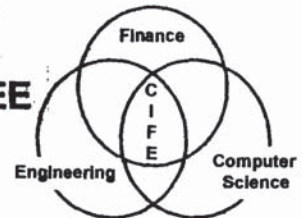
Committee Chairs

■ Tutorial Co-Chairs

- Douglas Stone, Frank Russell, Research & Development
- Dr. Joe R. Brown, MCC, Director Neural Networks Project
- David Schwartz, Mitsubishi Bank, Sr. V.P. Trading & Risk Management

■ Others

- Organizational Chair: Scott Mathews, MPCV Financial Engineering Computer Services
- Finance Chair: Christine Alan, Motorola, Sr. Financial Analyst, CPA
- Exhibits Chair: Dr. Steve Plche, MCC, Neural Networks Project
- Electronic Publicity: Dr. James Ritcey, UW, EE
- Publications Chair: Dr. Don Wunsch, Texas Tech University, EE

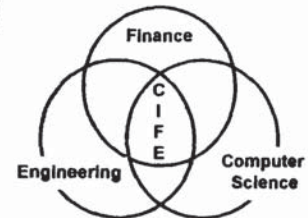


Conference Proposal

IEEE/NNC & IAFE

Meeting Management, Inc.

- **16 years of providing outstanding conference management**
- **Managed many other IEEE and scientific conferences around world (65+ annually)**
- **Contract for \$18,000 for CIFE**
 - assisted in conference preparation to date
 - computerized registration, paper handling, etc.
- **Coordinators: Steve Marlin, Barbara Klemm and Nomi Feldman**



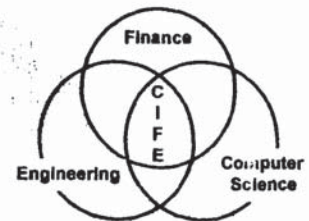
Conference Proposal

IEEE/NNC & IAFE

Conclusion

- **Sufficient interest among professionals**
- **Cosponsorship by IEEE/NNC and IAFE brings stature, recognition**
- **CIFE satisfies needs of emerging field**

Conference Proposal



IEEE/NNC & IAFE

*Journal on Applied
 Computational Intelligence*

Appendix B: Financial Input Data

| | 95 | 96 | 97 | 98 |
|----------------------------|---------------|-----------------|----------------|----------------|
| POLICIES | | | | |
| Frequency | 4 | 4 | 4 | 4 |
| Member rate | 18 | 18 | 20 | 20 |
| Non-Mem rate | 150 | 150 | 150 | 150 |
| Pages & Covers | <u>480</u> | 520 | 520 | 560 |
| ASSUMPTIONS | | | | |
| Mem subs | 2000 | 2500 | 3000 | 3500 |
| Non-Mem subs | 100 | 100 | 100 | 100 |
| Full Pckg subs | 967 | 967 | 967 | 967 |
| Total Print Run | 3067 | 3567 | 4067 | 4567 |
| INCOME (K) | | | | |
| Mem subs | 36 | 45 | 60 | 70 |
| Ind non-mem | 15 | 15 | 15 | 15 |
| Full non-mem | 50 | 50 | 50 | 50 |
| TOT IN (K) | 101 | 110 | 125 | 135 |
| EXPENSES | | | | |
| Prod & Dist | 85 | 95 | 101 | 112 |
| Indexing | 2 | 3 | 3 | 4 |
| Ed. Expenses | 10 | 10 | 10 | 12 |
| TOT EX (K) | 97 | 108 | 114 | 128 |
| NET | 4 | 2 | 11 | 7 |
| EXPENSES | | | | |
| Prod & Dist | 70 | 79 | 90 | 102 |
| Indexing | 2 | 3 | 3 | 3 |
| Ed. Expenses | 10 | 10 | 10 | 12 |
| TOT EX (K) | 82 | 92 | 103 | 117 |
| NET | 13 | 10.5 | 16 | 11 |

Appendix C: Detailed Cost Data

The data here are for a quarterly journal with ⁴⁸⁰~~352~~ pages (including covers).

Fixed Costs

| | | |
|------------------|-------------|-------|
| Editorial | 480pp@ \$46 | 22080 |
| Comp & Layout | 480pp@ \$66 | 31680 |
| Camera | 480pp@ \$4 | 1920 |
| Press | | 9000 |
| Covers & Binding | | 3400 |

Variable Costs

| | | |
|-------------------------------|--|--------------|
| Press | | 1100 |
| Mailing | | 2200 |
| Postage (25% Foreign) | | 6700 |
| Paper | | 4500 |
| Pub Admin Costs | | 1700 |
| TOTAL per year (93 \$) | | 84280 |

COMPUTATIONAL INTELLIGENCE STANDARDS:
Motivation, Current Activities and Progress

Mary Lou Padgett

Auburn University, EE Dept., 1165 Owens Rd., Auburn, AL 36830

Walter J. Karplus

UCLA, CS Dept., 3723 Boelter Hall, Los Angeles, CA 90024

Steve Deiss

Applied Neurodynamics, 2049 Village Park Way #248, Encinitas, CA 92024

Robert Shelton

Software Technology Branch, PT4, NASA/JSC, Houston, TX 77058

ABSTRACT

Computational Intelligence is an emerging technology of keen interest to the developers of computer standards and interfaces. Coherent communications among the diverse set of users of computational AI is necessary for the protection of all parties and can help further the serious development of artificial neural networks, fuzzy systems, evolutionary programming and virtual reality. Current activities of the IEEE Neural Networks Council Standards Committee encompass all these areas, emphasizing the development of glossaries and symbologies, performance measures and interface standards for these interrelated fields. Progress toward these goals is described in this paper.

THE NNC STANDARDS COMMITTEE

Now in its third year of operation, the Standards Committee of the Neural Networks Council (NNC) invites your participation in its working groups and other activities. IEEE is one of the primary standards organizations in the United States and is currently maintaining over 1500 active standards in the electrical and electronic areas. The IEEE Standards Board has established formal procedures for the initiation of standards projects via Project Authorization Requests (PAR), balloting to approve standards, and the eventual publication of standards. The NNC is represented on the IEEE Standards Board and has made standardization one of its principal activities.

At present three active Working Groups are developing standards in the following areas:

Definition of Terms for Artificial Neural Networks

Guidelines for the Evaluation of Artificial Neural Networks

Hardware and Software Interfaces for Artificial Neural Networks

Additional Working Groups interested in Fuzzy Systems and in Virtual Reality are in the process of formation. These groups interact by email and strive to meet once or twice per year at major conferences. The Standards Committee is composed of the heads of these working groups and some additional members appointed by the president of the NNC.

In the view of the Standards Committee, it is never too early in the life cycle of an emerging technology to commence standardizing activities. The purpose of these efforts is not to attempt to "freeze" developments but rather to enable diverse groups and individuals to begin to collaborate effectively toward a common goal. Experience in many areas has shown that serious developmental efforts and the investment of substantial funds often take place only after there has been a measure of agreement on the terms, the symbols and the paradigms to be employed. The standards now being generated are intended to assist

in defining such common ground and to stimulate further innovations.

The IEEE NNC Standards Committee is cooperating with all other known standards efforts in this area, and welcomes the input of other organizations and individuals. The current activities of the NNC groups are described in the following section, then a detailed report from the ANN Glossary and Symbols Working Group is included. The latter contains some explanatory text and diagrams which may be helpful to the interested reader.

CURRENT STANDARDS ACTIVITIES

NNC Standards Working Group on ANN Glossary and Symbols

Motivated by requests from governmental agencies for clarification of concepts and assistance in determination of the effectiveness of products being considered for purchase, informal discussions about artificial neural networks standards have shifted into serious efforts to address these problems.

Early meetings were held in conjunction with the NASA co-sponsored Workshops on Neural Networks: Academic / Industrial / NASA / Defense Tutorials and Technical Interchange (WNN). As these meetings grew and spread to larger formal conferences such as IJCNN91 SEATTLE, IJCNN92 Baltimore and IJCNN92 Beijing, the concerns of software developers and textbook authors were expressed and incorporated into the standards plan of action.

The Beijing meeting featured a panel discussion on the formation of an international language and symbology. The needs of the Asian community are particularly critical with regard to confusing translations which currently abound. Both Japanese and Chinese representatives are actively addressing this issue. The IJCNN93 Nagoya will support the further development of this task. Future WNN meetings will host multiple day glossary task force work sessions in cooperation with NASA and all interested professional societies.

The Society for Computer Simulation (SCS) committee on Neural Networks and

Simulation Standards is interested in the validation of fielded applications. This effort was supported by a recent special issue of Simulation on Neural Networks: Model Development for Applications [Padgett 1992a]. Design of the training and testing sets for a network, tuning the parameters, and embedding the application into a larger system have been addressed, and terms relevant to these endeavors are in the current glossary. The next special issue of Simulation directed towards applications and standards will encompass Neural Networks, Fuzzy Systems, Evolutionary Programming and Virtual Reality.

Early work by Russell Eberhart provided a firm basis for growth, with the glossary from his textbook serving as a starting point for the committee [Eberhart 1990; Eberhart and Dobbins 1990]. This set of terms has since been modified in response to comments from a large number of sources. Paul Werbos has offered a number of very constructive suggestions regarding modularity in the development of sets of definitions. Harold Szu has encouraged researchers to contribute terms and make suggestions. Support from NASA and DOD sources has motivated the move to clarify concepts and further formalize network descriptions. Email suggestions and expressions of interest from individuals continue to be received.

Contributors from all of these groups gathered at the recent IEEE-ICNN 93 / IEEE-FUZZ 93 San Francisco Conference to discuss the status and plans for ANN glossary development. Well over a hundred individuals were consulted or expressed an interest in further participation. The following paragraphs summarize these efforts.

The IEEE-NNC Standards Committee Working Group on ANN Glossary and Symbols has filed a PAR, and has refined the original set of terms considered for adoption. This process continues with the objective of creating an authoritative compendium of terms and symbols relating to artificial neural networks. The definitions have been obtained from a number of sources. Controversial definitions have been noted, and opinions solicited by email and personal conversation. Most of these suggestions are

supplementary to the original set of terms, and have been very helpful in refinement of the glossary. A modular structure for the glossary has been introduced as a working tool to increase understanding of the interrelationships of the terms. The final product will be in alphabetical order, with cross-references as in [Jay and Goetz 1988]. A major goal of the glossary is to further communications among diverse groups, so careful attention is paid to terms and concepts which may cause confusion. Contributions and comments are very welcome.

ANN Paradigms

The Paradigms Ad Hoc Working Group has been incorporated as a subset of the glossary committee. Broad descriptions of some currently popular paradigms have been included in the current glossary. Rigorous specification of paradigms has not yet been accomplished, but pseudocode is being developed for the following: feedforward networks trained by backpropagation, feedback competition networks, adaline networks, padaline networks and recurrent networks trained by backpropagation. Preliminary versions are those found in the text by Caudill and Butler (1992) and tested by Professor E. Tzanakou. Comments on these versions are requested.

In cooperation with the performance committee, the paradigms group will continue to sponsor a paper and programming contest at the NASA co-sponsored WNN meetings. All paradigm comparisons are of interest for this contest, including those based on the example sets supplied by the performance committee. The examples will be constructed by Robert Shelton. Professor E. Tzanakou will help review the contest entries, and Mary Lou Padgett will administer the competitions. For details about the glossary PAR or competition, contact Padgett.

NNC Standards Working Group on ANN Performance Evaluation Methodology

A PAR has also been filed by the Working Group on ANN Performance

Evaluation Methodology. The objective is to provide a means of evaluation for feed-forward neural networks in forward propagation as well as in learning mode.

In support of this objective, a set of benchmarks will be made available by anonymous file transfer protocol (ftp). The intent of making this set of benchmarks publicly available is to provide sample problems for assessing the speed and fidelity of various implementations of feed-forward neural networks with fixed or adaptive coefficients. There is no claim that these problems are in any way especially well suited for determining the effectiveness of other algorithms, neural network or otherwise.

In accordance with the plan of the working group to establish a repository for benchmark data sets, a new collection of pattern classification signatures is under consideration for inclusion in the suite. These patterns are comprised of over 700 60-point AC electric current demand signatures for devices found on the space shuttle orbiter; followed by a class code consisting of 9 values of either 0.1 or 0.9, with the higher value in position k ($k = 0, \dots, 8$) signifying membership in class k , and all low (0.1) values signifying "none of the above". The possible inclusion of these real signatures has raised a number of administrative and technical issues. The administrative questions are not new to standards efforts in that they pertain to the value and ownership of material which might become part of a public domain standard. As data-driven systems such as adaptive neural pattern classification algorithms become more common, it is increasingly clear that the cost of creating such systems is primarily driven by the cost of acquiring and cataloging training sets. It is now clear that in many cases, training data is at least as valuable as the actual pattern classification algorithms. The other side of this issue is the value of the standard to the industrial and scientific community as a whole. Specifically, from a scientific point of view, the quality of algorithms as well as that of their implementations tends to be improved by the availability of large, diverse

and challenging data sets. Due to the fact that the signature data came from real systems and was hand-catalogued by human experts, a number of technical issues must also be addressed. In particular, what are the implications of cataloging errors in the data, and how should the group decide what makes a good benchmark as opposed to a data set which produces a robust classifier? Please address any thought or comments to the working group chair, Dr. Robert Shelton. Shelton maintains the NASA/JSC simulation model, NETS, which provides the basis for current benchmarks and interface standards.

ANN Training Algorithm Evaluation

The most recent addition to the standards team is a new group designed to address issues pertaining to training ANN's. Two such issues are scalability and problem dependence. The group hopes their product will be comprehensive and of benefit to the scientific-engineering community.

The formation of a Working Group on Methodology for Evaluation of ANN Training Algorithms is proposed. The objective is to provide a means of evaluating algorithms for various aspects of training feedforward networks, such as weight initialization, training data selection, error minimization, and weight decay/pruning.

There are four major tasks for this group. The first is development of a taxonomy of learning problems. This involves issues such as the nature of the mapping (continuous, discontinuous, classification), the nature of the training data (sparse/plentiful, noisy/clean), and the learning criteria (numeric accuracy and misclassification).

The second task is the development of training algorithm performance criteria, which may be dependent upon the class of learning problem. Evident error minimization algorithm criteria include execution time and space requirements, generalization, sensitivity to algorithm parameters, and avoidance of local minima. Criteria are also needed for algorithms involving weight initialization, training data selection, and pruning.

The third task is an ongoing effort to collect and document training-related algorithms. A 'collected training algorithms' document will be maintained, and made available by anonymous ftp. Criteria for algorithm inclusion might include: common usage, novelty, or demonstrated effectiveness.

The final task is development of a benchmark set which is suitable for evaluation of the range of training-related algorithms, as applied to the range of learning problems. This, too, will be made available by anonymous ftp, and will be updated as experience and understanding dictate.

As the organization of the new group progresses, it will split from the original working group on ANN performance measure methodology. Contacts for the new group are: Chair, Dr. Robert W. Green, U. Mass. Dartmouth, and his assistant, Christopher M. DeAngelis, Naval Undersea Warfare Center Division, Newport. The forming group will also maintain close communications with the ANN Interfaces Group.

NNC Standards Working Group on ANN Interfaces

In order to develop a standard there must be (A) some clearly defined need or problem that a standard would help solve or there must be (B) the perception of some kind of future confusion / need that could be averted if the standard were adopted. In both cases the motivation is fundamentally economic, when lack of a standard is or will be costly.

Examples of Type A standards are the ISA bus and the VME standard, both of which were written down long after millions of dollars worth of incompatible hardware had already been built.

Type B standards are not fundamentally different from Type A. They involve forward thinking and new design rather than being limited to clarification of current practice. For examples, the EISA, Futurebus, and the SCI standards were evolved in anticipation of future industry needs and with broad industry support.

Type A standards often evolve by generalizing and 'cleaning up' proprietary designs (AT bus, Versabus). Type B standards often evolve in committee with engineers hard pressed to keep their prototypes up to date with the evolving specification (Futurebus, SCI). Standards with real content tend to evolve with changing A and B emphasis.

Once it becomes clear that there will be a forthcoming standard of any type economic pressure comes to bear on the industry participants to align with it. Thus, standards may help by 1) promoting uniform use of terminology, 2) clarifying existing practices and their realm of applicability, and/or 3) prescribing methods and techniques for new product development. This working group seeks to help solve problems and avert future confusion by moving forward in all three of these areas.

ANN Software Interfaces

There are readily identifiable problems in the software interface area that support the need for standards. For example, trying to train neural networks on a variety of host simulation systems is difficult because porting the training and testing data requires reformatting. This particular problem is the object of the first subgroup of this committee. Professor Hal Brown is developing C code and a working document that should lead to a draft PAR in the near future.

ANN Hardware Interfaces

The hardware interface area does not yet have the benefit of broad industry experience in developing large neural network hardware systems. Most hardware accelerators to date have been comprised of one or a few accelerator boards based upon existing industry platforms such as VME or ISA. The chips used in those accelerators range widely across analog neural network chips, all digital RISC or DSP simulators, and hybrid IC's with digital I/O and analog processing. Almost no one has tried to build a large system out of neural network

IC's from many different vendors such as to expose incompatibilities of signal levels, protocol, and communication architecture at either the chip or the board level. The scalability of some chips to larger systems is more obvious than with some others. However, the overall system communication architecture for neural "messages" remains an abyss in need of funded research.

The ANN hardware interfaces working group has considered composing a set of guidelines on embedding neural computing systems into existing industry platforms such as VME, Futurebus+ and SCI. The committee welcomes comments on the nature of the hardware interface standards task. To have tangible results, this standards process must be driven by a ground swell of broad interest. Please send all comments to Steve Deiss, Chair, ANN Interface Standards Working Group.

NNC Standards Working Group on Fuzzy Systems

The IEEE-NNC Standards Committee Working Group on Fuzzy Systems, chaired by Dr. Hamid Berenji, was formed at the recent IEEE-FUZZ 93 conference in San Francisco. The initial task of this group is to generate a glossary of terms and examples on fuzzy systems and new hybrid fuzzy and neural network methods. From the North American Fuzzy Information Processing Society, (NAFIPS), Dr. Burhan Turksen (University of Toronto) and Dr. James Keller (University of Missouri - Columbia) have volunteered to help the committee. For further information, contact Hamid Berenji.

NNC Standards Working Group on Virtual Reality

This committee is being formed in the Neural Networks Council to encourage the development of commercial products in the field of VR and to facilitate the development of a robust market for such products. Research people and potential developers of VR products are encouraged to get involved for the benefit of themselves and the industry as a whole. The beginning stages will involve

establishing a glossary of terminology. All aspects of hardware and software standards will be considered.

The VRAIS 93 conference in Seattle served as a planning site for 1994, when the University of Colorado at Colorado Springs will host a conference dedicated entirely to the formulation of VR standards.

This will be a working committee, consisting of anyone who is interested in participating. Every attempt will be made to coordinate efforts with other groups which might be involved in VR standards as well. It may be that VR standards will be taken out of the NNC to gain broader participation. For further information please contact Professor Richard Blade, preferably by email.

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Any of the committee members will be happy to receive your comments and expressions of interest and concern.

Regular reports on committee activity are published in the IEEE-NNC Newsletter, *Connections*.

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**NNC STANDARDS WORKING GROUP ON
ANN GLOSSARY AND SYMBOLS
Overview of Progress**

NEURAL NETWORK DEFINITION

An artificial neural network (ANN) is a software simulation and/or a hardware implementation of a structure derived from studying the physiology of groups of nerve cells.

An abstract biological model of neural processes usually forms the basis for a mathematical model simulating the wetware but using simplifications and abstractions as necessary for potential physical implementation. In many cases, the physical models constructed have similarities to traditional analytic techniques. Recent technological advances have improved the capabilities of parallel and distributed processors and microelectronic neural circuits, so old ideas can become reality, and theory can be supplemented by experimental evidence. As hardware capabilities increase, more elaborate ANN applications should become feasible.

The following section discusses iterative steps for specification of a neural network system, beginning with an abstract biological model, a mathematical model and a set of performance goals; and resulting in a precise paradigm specification, including performance measures and validation and verification procedures. In the next section, the biological and mathematical models of a typical neuron are described, and each modular component of network specification is discussed. Terms and concepts under consideration for definition by the standards committee are listed. Last, a list of references and a bibliography is provided to at least partially credit the many excellent and creative works in this diverse field.

NEURAL NETWORK SPECIFICATION

The procedures for constructing an ANN are similar to those for any biomedical based system simulation. All the software engineering and design techniques found useful to engineers and simulation professionals help to guide the process of specifying, refining and evaluating an artificial neural network. Because of the relaxed assumptions ANN's can handle, problems approached are not always straightforward, and some creative validation and verification techniques are needed. The development of these is still a research topic. There are, nevertheless an increasing number of fielded applications.

Many disciplines offer techniques for improving the performance of ANN's in particular applications. In particular, fuzzy systems and evolutionary programming are useful in this regard. Virtual reality and other visualization techniques can also guide the design and evaluation of an ANN in enormously effective ways. Terms describing these interactions, and some of the mathematical procedures in common use will be included in the ANN glossary.

Initially, the glossary will be divided into functional units to help maintain consistency during its development. See Figure 1. The functional units illustrated suggest a methodology for specification of a neural network application. Iterative passes through the steps depicted in Figure 2 should reflect the stages of system development, from concept through testing, refinement, implementation and more modifications.

In Figure 2, the nature of the abstract neural network model is shown to lead to the selection and specification of a paradigm. When this is simulated and/or otherwise implemented, it can be depicted as an ANN module of a larger system. The sources and sinks connect the ANN to the real world or to the rest of the computer model. The source information is often subjected to extensive preprocessing to fit it for direct input to the ANN. Likewise, the ANN output usually requires postprocessing before being intelligible to the

system sinks. The functional modules in Figure 1 depict the flow from abstract definition of a biological model and a mathematical counterpart, to the specification of a paradigm capable of satisfying performance goals.

Once the neural network abstract model and goals have been selected, and this functional description of the model has been supplemented and refined by the specification of mathematical procedures, architecture, numerical values, variable parameters, activation procedures, training procedures and update procedures, the paradigm can be said to be completely defined [Padgett and Padgett, 1993].

The following discussion considers each of these nine categories and outlines the terms being considered for inclusion in the glossary. Supplemental diagrams are included to help clarify the terms and concepts of interest.

SPECIFYING AN ANN SYSTEM

First, a functional description of the proposed neural model is developed and a simulation / implementation plan is devised in accordance with user specified goals.

ANN modeling strategies include signal transfer, state transfer and competitive learning or self-organization [Kohonen 1984].

In signal transfer, the ANN serves as a parametric transfer function. It is a fixed function, and its success depends on the quality and performance of the components available.

In state transfer, there exists a set of stable values, or attractors. The initial state is input, and ANN computation produces the final output state.

In competitive learning, or self-organization, vector quantization (VQ) involves a set of laterally connected cells, which receive identical information and compete for activation to stimulate the system. Each cell or region reacts to a particular class of input [Kohonen 1984].

Neural network training procedures can be categorized as supervised, unsupervised and reinforcement [Werbos 1992].

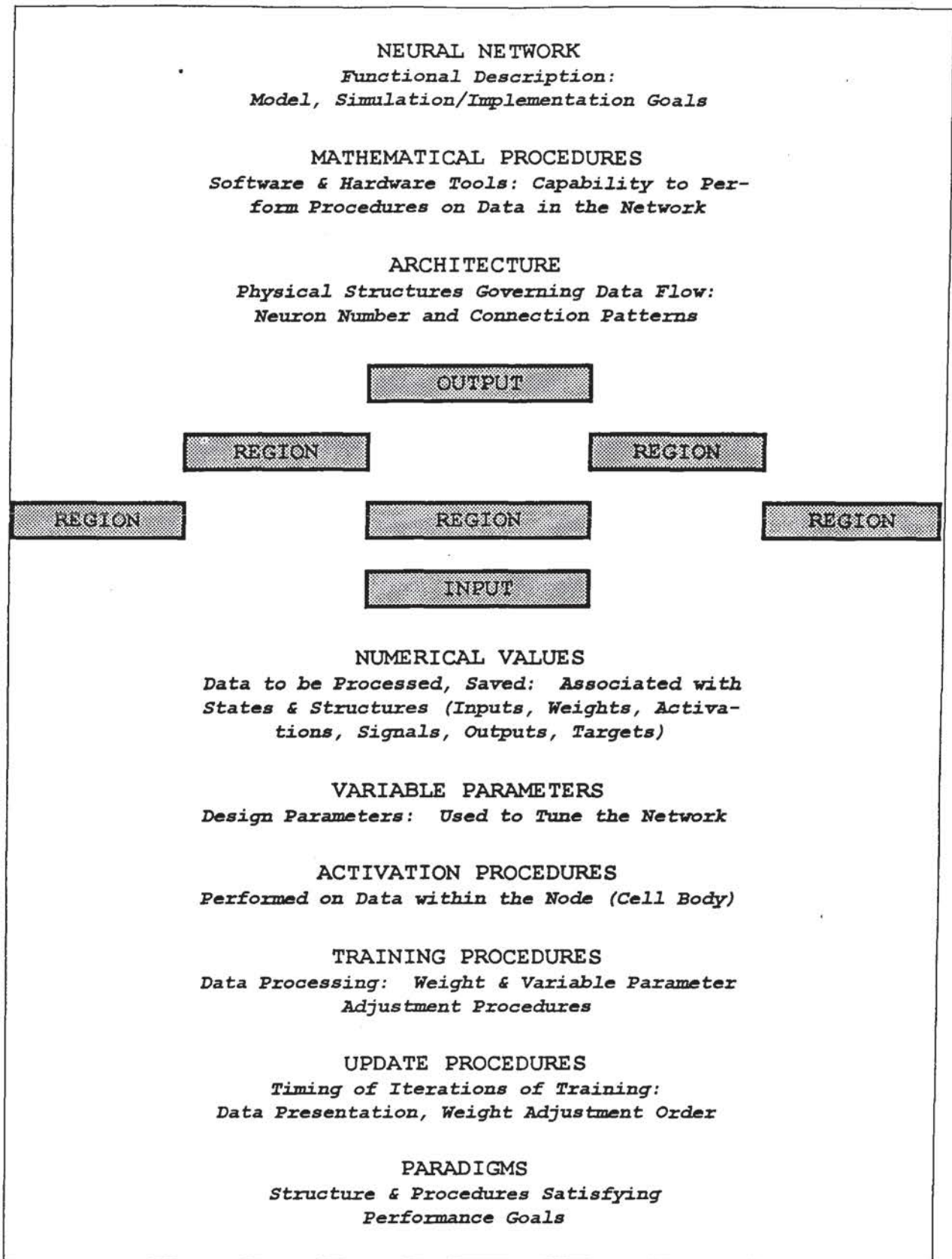


Figure 1. Building Blocks for Neural Network Actuation

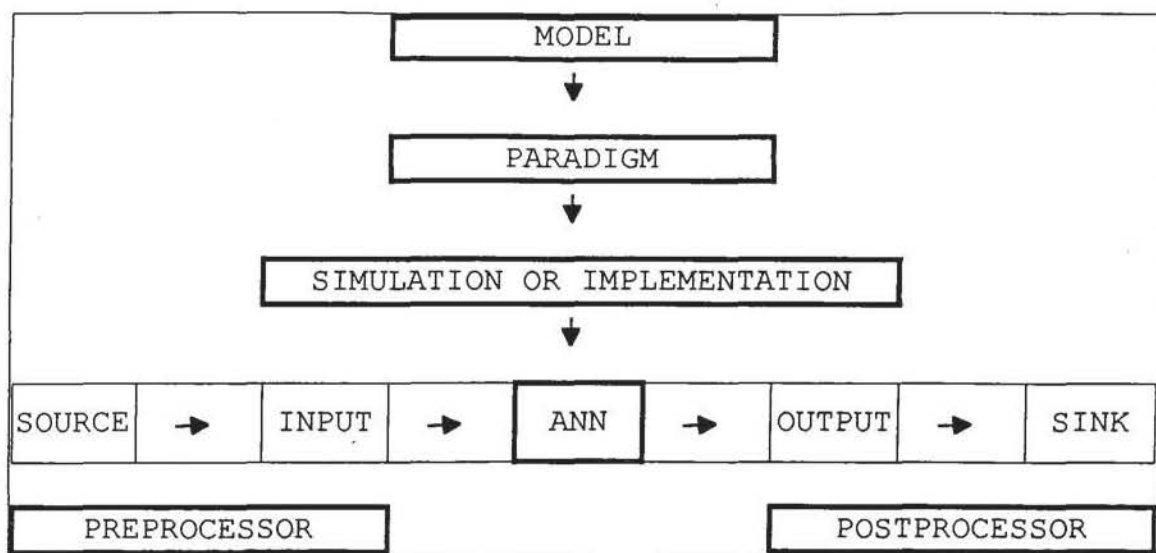


Figure 2. Neural Network Design Iterates through Stages

In supervised training, the system input is processed, actual output is compared to targeted output, and the ANN weights are adjusted accordingly. In unsupervised training, the system input produces generalizations, and the weights are adjusted accordingly. In reinforcement training the system input stimulates an objective function, which rewards or punishes.

Neural networks have been particularly successful in using pattern recognition to 1) determine a change of state, 2) produce a signal and/or 3) modify behavior of a piece of the system [Gluck, Dai and Karplus 1992].

All of these system goals and training procedures require knowledge of the final objectives and of the nature of the system to be modeled. Validation and verification procedures must be planned into the system design, as detailed below.

DEFINING AN ANN SYSTEM

The standards committee has found it convenient to partition the definitions in the glossary into functional subsets, with the simplest building into the more complex. This assists in checking for inconsistencies and stimulates the description of generalizable neural network components. See Figure 1.

NEURAL NETWORK: Functional Description

The first definition module is NEURAL NETWORK. In constructing an actual artificial neural network system, the designer first determines appropriate goals. As shown above, a functional description of the neural network emerges as the designer iterates through specification of the abstract model and the specific simulation and/or implementation, refining the system and goals and tuning the model until satisfaction occurs, or resources are exhausted.

Definitions applicable to the top-level effort include the following [Eberhart and Dobbins 1992; Freeman 1988; Arbib 1992]:

artificial neural network (ANN), ANN attributes, ANN paradigm, ANN model, biological neural network (BNN), neurocomputer.

Construction of an ANN as depicted in Figure 2 requires some knowledge of desired system performance goals and available hardware, software, tools and resources. A comparison of an abstract biological model of a neuron with a mathematical model of an artificial neuron (AN) is offered to help build intuition for such model development. This description is supplemented by a description of the integration of a number of neurons into a simple feedforward ANN system.

A SINGLE NEURON

A neuron typically receives multiple inputs which are modified by the environment and the past history of the particular receiving neuron. These modified inputs are processed in a node or cell body to produce or inhibit a single output response.

Variations on this behavior abound in biology, and have been modeled in ANN's. The direction and frequency of information flow is a characteristic of the particular neural system. The patterns in which groups of similar neurons are interconnected transforms some very simplistic single neuron processes into powerful systems capable of being trained to solve significant problems.

Figure 3 compares a biological neuron model with a mathematical artificial neuron model. The five columns describe: 1) input from external sources or other neurons; 2) weighted connections for receiving information and transforming it based on environment, past history and training of that particular neuron; 3) a processing site for collecting and transforming inputs to produce an output response; 4) transmitting site for output to other neurons or external sinks; and, 5) external sinks or input structures of other neurons. The top half of the diagram describes a biological neuron and the bottom half describes its mathematical counterpart.

The artificial neuron is considered to be a structure composed of connections, weights and a node. Its interface with the external system and with other neurons is as vital as the nature of the processing it performs

on data passing through the neuron. The example chosen is in common use.

It can easily be modified and extended to reflect the structure of other neural models such as those where signals oscillate between nodes, connections include feedback from previous system states and neurons with different processing capabilities [Amari and Arbib 1977; Arbib and Buhmann 1992; Carpenter and Grossberg 1986,1987; Dai 1992; Faggin and Mead 1990; Fukushima, Miyake and Ito 1983; Guyton 1968; Hebb 1949; Hecht-Neilsen 1987; Hinton, Sejnowski and Ackley 1986; Hopfield 1982; Hopfield and Tank 1985,1986; Kohonen 1988; Kosko 1988,1989; Lippman, Gold and Malpass 1987; McCulloch and Pitts 1943; Mead 1998; Miller, Sutton and Werbos 1990; Narendra and Parthasarathy 1990; Padgett and Roppel 1992; Pao 1989; Pineda 1988; Minsky and Papert 1969; Rosenblatt 1958a,b, 1959; Rummelhart and McClelland 1986; Shapiro 1992; Skardat and Freeman 1987; Szu 1986; Werbos 74; Widrow 1959; Widrow and Hoff 1960].

It is important in defining a typical neuron to generalize for simplicity, but to allow for selected refinements as varying types of applications become more prevalent. The diagrams and design methodologies suggested here are intended to provide guidance without restricting future modifications [Padgett, Padgett 1993].

Flow of control in the neuron described here moves from left to right, as input sources stimulate the system. Chemical, pressure, temperature, electrical and other sensors pick up messages from the external environment, from other neurons in the system, or from this neuron itself. Suppose neuron i has n sources feeding input vector $\mathbf{X} = \mathbf{x}(1), \mathbf{x}(2), \dots, \mathbf{x}(n)$.

An input stimulus originating from a particular source, say j , is $\mathbf{x}(j)$. Upon crossing a synapse of neuron i , $\mathbf{x}(j)$ is modified, and may be further modified as it travels down a receiving connection, or dendrite to the neuron's cell body, **node(i)**. The modification of $\mathbf{x}(j)$ due to gap resistance, time delay and other environmental pressures is often modeled as the product of a weight or resistance $w(i,j)$ multiplied by $\mathbf{x}(j)$

giving $\mathbf{s}(i,j)$ as an input stimulus to **node(i)**. The weight, $w(i,j)$ may be positive or negative, and is a reflection of past history of the environment in close proximity to the synapse. This weight is sometimes compared to long-term memory, and is periodically updated in response to patterns in signal flow and neuronal processing procedures. A synapse may be located on the cell body wall, so that the dendrite or receiving connection has zero length. In either case, the weight $w(i,j)$ is a property of **node(i)** and models the impact of synapse and input connection i,j . For any **node(i)** and input stimulus j , input signal $\mathbf{x}(j)$ is transformed to stimulus element $\mathbf{s}(i,j) = [w(i,j)][\mathbf{x}(j)]$ as it enters the cell body or node(i). The sum of the n stimulus elements is the **node(i)** stimulus, $\mathbf{S}(i)$. It is sometimes called the net input for **node(i)**.

Over a period of time, activating stimuli enter the cell body, **node(i)** and accumulate to form the sum $\mathbf{S}(i)$. Then an activation or signal function, \mathbf{F} , produces or inhibits a single output, $\mathbf{y}(i) = \mathbf{F}(\mathbf{S}(i))$. This output or response, $\mathbf{y}(i)$, is the node activation (Widrow), or node signal (Kosko). The processing taking place within **node(i)** may be termed the activation procedure. These operations on the sum $\mathbf{S}(i)$ may include adding a bias term. If a trainable weight, $w(n+1,i)$ with fixed unit input signal, say $\mathbf{x}(n+1)$, is connected to **node(i)**, the sum $\mathbf{S}(i)$ will always include $w(n+1,i)$. This allows adjustment of the offset of the function, \mathbf{F} , and can be used for thresholding and damping the response of the system to near-zero inputs. Details of this technique vary [Anderson 1987; Anderson and Rosenfeld 1988; Baffes 1992; Caudill and Butler 1992; DARPA 1989; Eberhart and Dobbins 1990; Hecht-Nielsen 1989; Hertz and Palerm 1991; Lippmann 1987; Masters 1993; McClelland and Rumelhart 1986; Melsa 1989; Nguyen and Widrow 1990; Padgett 1992a,b Padgett and Karplus 1993; Sejnowski 1991; Shapiro 1992; Szu 1986; Wasserman 1989; White and Sofge 1992; Widrow 1962; Widrow and Lehr 1990 Widrow and Stearns 1985;

Widrow and Winter 1990; Zornetzer, Davis and Lau 1990].

The function, F , also varies with the intended purpose of the particular neural network. It may be chosen to be the sigmoidal logistic function, $F(S) = 1 / [1 + \exp(-cS)]$, where the positive scaling constant, c , governs the slope of the s-shaped function. This controls how easily the node output is dichotomized, and how hard it is to adjust after this happens. This convenient function is monotonic, bounded and has a simple derivative: $F'(S) = c[F(S)][1 - F(S)]$. Thus the response to a very large or small activating stimulus, s , is damped, and response to intermediate values is controllable. The first derivative is of interest in determining the impact of errors in some types of neural network.

After the incoming stimuli have been accumulated and processed by $\text{node}(i)$, the output value, $y(i)$ is passed to the base of the output transmitting connection, the axon-hillock attached to the cell body wall. From there, at an appropriate time, $y(i)$ is transmitted down the axon and all of its branches. This movement may be modeled as unidirectional, or oscillatory in response to conditions at the synapses at the end of the axon branches. A typical model is the passage of the unmodified $y(i)$ to each of the neurons connected to $\text{axon}(i)$ and its m branches, and/or to the external environment as connected to $\text{axon}(i)$ and branches. A receiving site may be termed $\text{sink}(k)$ for $k=1$ to m .

As the neuron's processing element, $\text{node}(i)$ serves many purposes. Although the weighted sum and squashing operations described above are common, many variations exist. The activation function, F , may be a threshold function, linear or have some other shape. There are applications where these characteristics are necessary or sufficient. Even the straightforward S and F computations mentioned above, have many practical variations. When the neuron is being trained in response to system input and desired characteristics, it is required to learn and store information in short-term and in long-term memory. For

$\text{node}(i)$, the weights $w(i,j)$ for $j = 1$ to n , represent long-term storage. Other information, used to calculate these weights to optimize the ANN, is stored in $\text{node}(i)$ as short-term memory. The exact nature of this information varies with the training procedure. The biological parallel for this information storage is the chemical and electrical status of the cell body, connections and synapses due to environmental pressures. Past activation states and current excitation levels are pertinent. Mathematically, a parameter is set to determine the rate of change for the weights. A momentum term is computed to keep the current change from varying too drastically from the last such change. This may reduce oscillation, and help the system sustain changes in beneficial directions. The learning rate and momentum terms may be global and fixed for the duration of training, or they may be varied heuristically or systematically to assist in optimizing the ANN learning.

AN ARTIFICIAL NEURAL NETWORK

A multi-layer perceptron (MLP) combines individual neurons in a manner suitable to many fielded applications. Figure 4a illustrates an MLP with a single neuron in the middle, or hidden layer. The input layer neurons feed into the middle layer neuron(s), and the middle layer neuron(s) feed into the output layer. In this particular ANN implementation, information is fed into the ANN at the input layer. These inputs originate from external sources, and do not undergo synaptic alteration. For these nodes, the activation function, F , is the identity function, and the weight is considered to be 1. Thus, each $\text{node}(j)$ in the input layer routes its input $x(j)$ to the synapses or weights of each node in the hidden layer. For $\text{node}(i)$ in the hidden layer, $x(j)$ crosses the weighted synapse, $w(i,j)$ and is altered to become $s(i,j) = w(i,j)*x(j)$. Then S and F are computed as described above, and $y(i)$ is transmitted to the synapse $w(k,i)$ of each $\text{node}(k)$ in the output layer. As $y(i)$ crosses the synapse, it is

altered to become $s(k,i)=w(k,i)*y(i)$. Node(k) computation of S and F are as described above, producing $y(k)$. This output, $y(k)$ is transmitted to $sink(k)$ of the external environment. During the training stage of the ANN, when weights for all layers are being adjusted to optimize the ANN, the observed output, $y(k)$ is compared with the target output, $t(k)$ to start the evaluation process. The difference between actual and target output is routed back through the network one layer at a time, to distribute the error according to its sources and allow the computation of weight changes to minimize this error after multiple iterations of stimulus by input signals and backwards error propagation. An MLP may have many hidden layers, and it is customary for the neurons of each layer to be fully connected to the neurons of the next layer. If a weight is set to zero, the connection is effectively broken. Bias inputs are not illustrated in Figure 4, but a bias would be a fixed input to an additional weight and neuron in hidden and output layers.

Not pictured in Figure 4 is the extensive preprocessing and postprocessing of input and output vectors to connect the ANN to the external system in a reasonable manner. Many of the intermediate values obtained during the feedforward and backwards error propagation stages may be saved for use in validation and verification of the system. Apart from the automatic and customary procedures for the forward and backwards operation of the ANN, parameter tuning procedures, pruning of excess nodes and addition of more nodes may be employed. Modeling techniques of every known variety have been used to optimize the performance of ANN's in light of application specific goals. The standards board encourages documentation of these procedures as an aide to the understanding and potential modification and reuse of particular ANN implementations.

MATHEMATICAL PROCEDURES: Software and Hardware Tools

Second, mathematical procedures are selected with regard to available and

appropriate software and hardware and its capability for performing needed procedures on data in the network.

The selection of software and hardware for the implementation is closely related to the abstract model specification. Resources and constraints are considered in choosing the tools for training and testing for verification and validation of the network, as well as those needed for its final implementation [Mead 1989; Hecht-Hielsen 1989; Savely *et al.* 1990; Webster *et al.* 1984].

For specification of software and hardware tools for mathematical procedures, the following definitions might be useful:

dot product (of two vectors) (scalar product) (inner product), Euclidean distance (geometric distance), inner product, mean squared error (MSE), root mean square error (RMS), scalar product, total sum squared error (SSE), vector length (magnitude), vector normalization.

ARCHITECTURE: Physical Structures Governing Data Flow.

Third, the architecture of the network is outlined. The physical structures governing data flow include the number of neurons and their connection patterns. These patterns vary widely, but groups of similar neurons are identified as layers, slabs or regions. The similarity of large groups of neurons is a key to potential parallel processing. The capabilities of an ANN are closely tied to the number and types of regions specified [Eberhart and Dobbins 1990; Mead 1989; Sietsma and Dow 1991; Werbos 1992; Zornetzer, Davis, Lau 1990].

Along with capabilities for performing appropriate mathematical procedures, software and hardware must accommodate a reasonable configuration of neurons, or architecture. The architecture may be considered the physical structure governing data flow. Although the neuron number and connection patterns may be constrained by the physical limitations of the available resources, the prime consideration should be accomplishing the system goals. Whether the primary goal is signal transfer, state transfer or competitive learning / self-organization; the number, connection

| NEURON MODELS | | | | |
|---|--|---|---|--|
| | BIOLOGICAL NEURON | | | |
| | RECEPTORS | PROCESSOR | TRANSMITTERS | |
| Sources | Synapses & Dendrites | Cell Body | Axon and Branches | Synapses |
| Chemical Pressure Temperature Electrical Other Cells | ... >->->->->- ... >--->--->--->- ... >->--->--->->- ... >->--->--->->- ... >--->--->--->- | <pre> +---#=#---#=#-+==+ + ... # # ... # # + +e---#---#=#=#+ </pre> | | ... |
| External, Internal | ... Synapse Gap Resistance >> Dendrite Time Delay | Excitability, Activation Procedure: Blending, Squashing, Thresholding are Common (+e-#=# cell wall structures) | Origin of Transmission of Output Response Signal (Activation Value) | Receivers: External or Next Cell |
| MATHEMATICAL ARTIFICIAL NEURON (AN) | | | | |
| INPUT X | WEIGHT-STATE WX = S | PROCESSING ELEMENT PE or NODE(i) | OUTPUT y(i) | SINKS 1 to m |
| x(1) -> x(2) -> . . x(j) -> . . x(n) -> | [w(i,1)][x(1)]=s(i,1) -> [w(i,2)][x(2)]=s(i,2) -> . . [w(i,j)][x(j)]=s(i,j) -> . . [w(i,n)][x(n)]=s(i,n) -> | -> S(i) -> F(S(i)) = y(i) -> | <pre> ---> ---> . . . y(i) ---> . . ---> </pre> | sink(1) sink(2) . . sink(k) . . sink(m) |
| where, $S(i) = s(i,1) + s(i,2) + \dots + s(i,j) + \dots + s(i,n)$; and, when F is the sigmoidal (s-shaped) logistic function, $F(S) = 1/(1 + \exp(-c S))$, with $c > 0$ a scaling constant governing the slope of the s-shaped function and $F'(S) = c F(S)(1 - F(S))$. Weights, W , model gap resistance and time delay. To threshold, a constant bias, $b(i)$, may be added to $S(i)$. | | | | |

Figure 3. Comparison of biological neuron model with mathematical artificial neuron model [Padgett and Roppel, 1992].

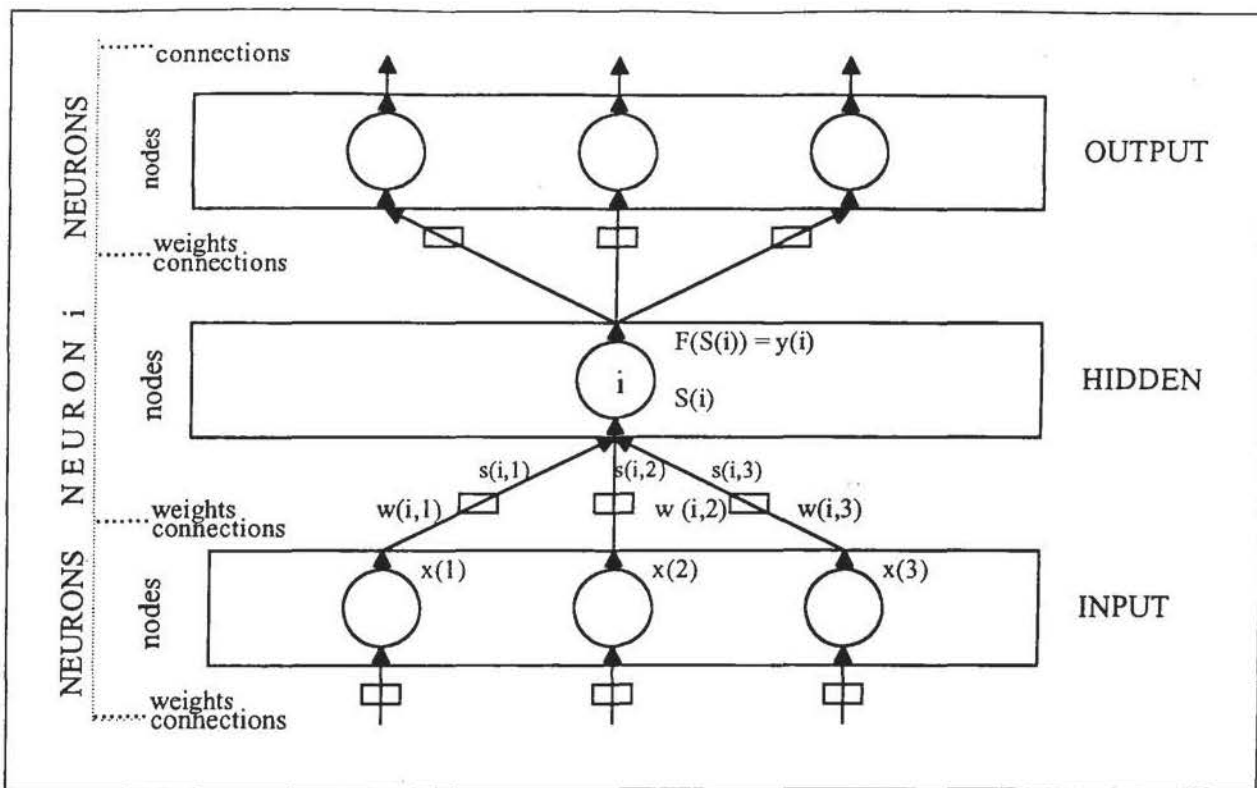


Figure 4a. A single neuron, i , in a hidden layer.

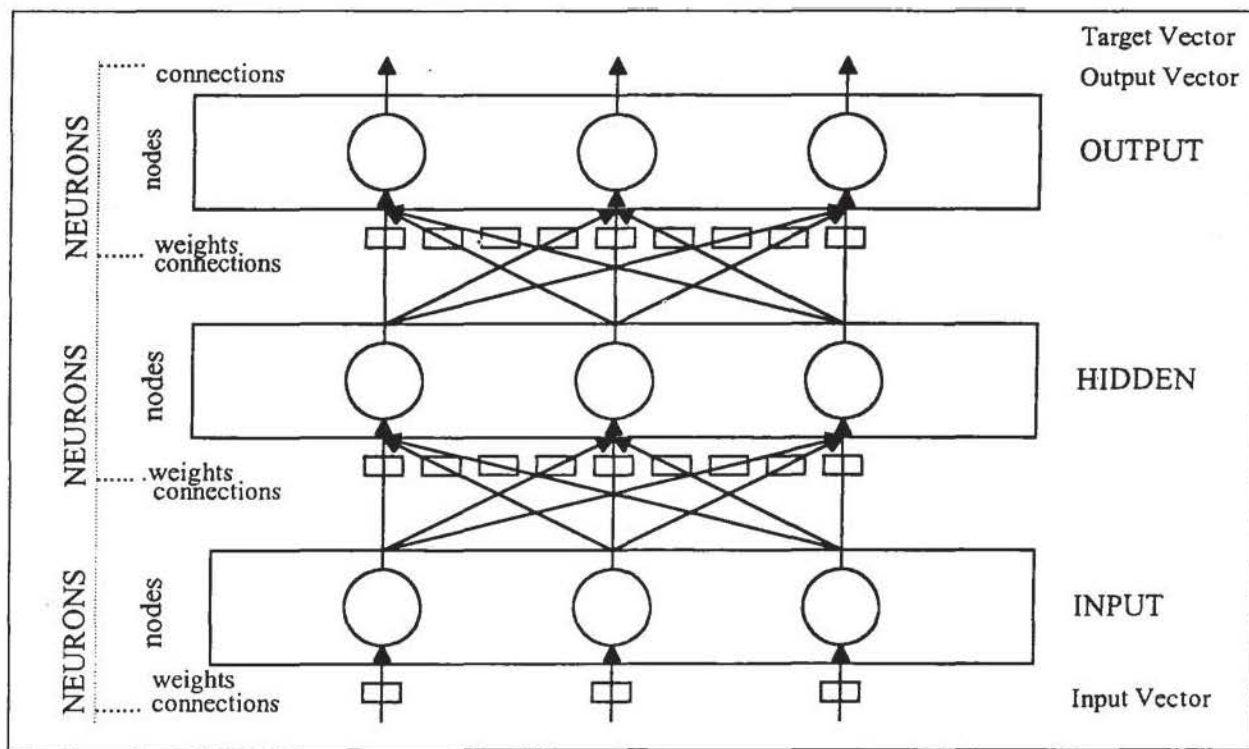


Figure 4b. Typical fully connected feedforward network.

patterns and similarities among and between groups of neurons comprise the architecture of the ANN. These features may be fixed at the onset of the design, but are subject to change as the specification progresses toward a satisfactory product.

Some of the factors influencing these arrangements and modifications include the impact of preprocessing to scale, normalize and otherwise code potential input vectors. The postprocessing to connect neural network output with the larger system and validation and verification procedures will influence the number of output neurons selected. Between these sets of neurons, there are many possibilities for layouts. Any neuron may potentially be connected to any other neuron, including itself. Connections may be one way or reversible (feedforward and/or feedback). Groups of neurons with similar properties and connectivities can be identified and labeled for convenience. Figure 1 denotes groups of input and output neurons, and regions of neurons between. Figures 3 depicts a typical neuron and its pieces. Collections of similar neurons which have a sequential relationship to other groups of neurons in the network may be termed layers. See Figure 4. Some architectures are designed to have only a few rather large layers, others target the design of a number of small cascaded layers [Mead 1989]. When connection patterns vary from the fully connected MLP illustrated in Figure 4, and include links within and between regions, feedback into the input layer and even feedback into the originating neuron, the concept of layer merges into that of slabs or regions of similarity [Arbib and Buhmann 1992; Kraft and Campagna 1990; Masters 1993; Reilly and Cooper 1990; Sejnowski 1991; White and Sofje 1992].

All of these potential architectural types are influenced by application goals, available resources, and the optimization process.

Definitions pertaining to the structure of the neural network include the following:

architecture, axon, axon hillock, cell, cell body (soma), connection, dendrite, fan-in, fan-out, hidden layer, input layer, layer, link,

local storage, neighborhood, node (processing element (PE)) (neurode), neurode, neuron, output layer, processing element, region, slab, soma, synapse, synaptic weight, trigger zone, unit.

NUMERICAL VALUES ASSOCIATED WITH STATES AND STRUCTURES

Once a trial architecture has been established, the numerical values or data to be processed and saved can be assembled. Numbers associated with states and structures include inputs, weights, activations, signals, outputs and targets. Obtaining the input and target data involves interfacing with the larger system in an effective manner. A method of training and testing the network should be tied in with the selection of the inputs and targets. Some neural network models require a priori knowledge of the correct or target output vector for each input vector. Others do not. All systems which are to be verified and validated require some knowledge of the system being modeled and what can be termed satisfactory output. There must be a way to tell when the model produces the correct output according to the design (verification). Equally importantly, there must be a way to judge the reasonableness and appropriateness of the output with regard to the users' goals (validation). This usually requires training and testing data sets and other system information. Assembling this data, and deciding what data states to save during model development and execution may be the most demanding part of successful ANN development for applications. Sources for this data include: expert intuition, facts, rules, examples, and search and reinforcement procedures. Careful use of every available modeling tool helps to keep the product goal-oriented [Caudill and Butler 1992; Goldberg 1989; Gleick 1987; Klimasauskas 1992; Kraft and Campagna 1990; Kuschewski, Hui and Zak 1993; Langari and Berenji 1992; Masters 1993; Savely *et al.* 1990; Shapiro 1992; Shannon 1948; Skarda and Freeman 1987; Zadeh 1992].

The data that flows through the neural network and is acted upon by the processing elements and

controlling algorithms includes the following:

stimulus element (activation input signal), activation input signal, activation value (activation signal value) (output signal), activation function, activation vector, connection strength, error term (error signal), error signal, Hinton diagram, input pattern, input signal, input signal vector, input vector, interconnections per second, node activation, output signal (activation value), output vector, pattern, response, signal function, target, weight, weight vector.

VARIABLE PARAMETERS

Once the numerical values have been identified, variable parameters can be selected. A system for modifying these may also be needed. In both the selection of training and testing sets and the systematic tuning of system parameters, modeling techniques from many disciplines are invaluable. In particular, fuzzy systems and evolutionary programming are helpful here. Fuzzy systems can help design input, interpret output, and aid decisions within the neural network model. Genetic algorithms, or evolutionary programming helps find solutions to problems not amenable to other techniques. They assist in escape from local minima, and help explore new combinations and previously unconsidered solutions [Hinton and Sejnowski 1986; Park, El-Sharkawi and Marks 1991; Reed, Oh and Marks 1992; Masters 1993; Mead 1989; Wasserman 1989].

Certain parameters influencing the performance of the ANN are adjusted during the design process, to help meet the performance objectives. These include the following:

bias, learning rate, momentum factor, threshold function.

ACTIVATION PROCEDURES

A vital part of neural network specification is the activation procedure, or, what happens to the data within certain structures, such as the node or cell body. Data traveling down a connecting path is modified, and when it arrives at a node or processing structure, it is blended with other data and processed until a signal is generated for transmission from the node. These activation

procedures vary according to the neural model selected [Anderson *et al.* 1977; Barto and Sutton 1981; Cover 1965; DARPA 1989; Frye *et al.* 1991; Fukushima and Miyake 1982; Grossberg 1967, 1973, 1974, 1982, 1987; Hebb 1949; Hecht-Nielsen 1987; Hinton and Sejnowski 1986; Hopfield 1982; Kohonen 1988; Kosko 1988; Kurkova 1992; Lippman 1987 Lippmann, Gold and Malpass 1987; Mead 1989 Minsky and Pappert 1969 Narendra and Parthasarathy 1990; Pao 1989; Parker 1985; Pineda 1988 Rosenblatt 1958a,b,; Sejnowski and Rosenberg 1987; Szu 1986; Werbos 1974 Widrow 1959; Widrow and Lehr 1990]. Usually, nodes within regions of similarity have very similar activation procedures.

Activation Procedures vary with the type of neuron, but in general, the node collects weighted inputs from many other neurons, and operates on these inputs before transmitting a single response to many other neurons. Some terms to be defined include:

activation signal function (signal function), activation procedure, sigmoid function (squashing function), squashing function.

TRAINING PROCEDURES

From a global perspective, many procedures are performed on data within regions, resulting in tuning the weights on connections between nodes. The weight states represent learning which has taken place in the system. These weights modify the data moving from node to node in a manner intended to transform the input vector to a satisfactory output vector. Training procedures may be divided into three types: supervised, unsupervised, and reinforcement. Supervised training depends on user, external designation for each input vector of its correct output. Unsupervised training proceeds without such direct intervention, but with a certain amount of system knowledge. Reinforcement training uses a form of conditioning, rewarding or punishing potential solutions. Current standards efforts in the performance measure area are focused on supervised training procedures, but the exciting potential shown by many other techniques make them appropriate

candidates for inclusion in the glossary. Some training procedures are specific to a particular architecture and paradigm. Others are not.

Training procedures are designed by the analyst to systematically allow the ANN to learn a set of responses by adjusting selected weights. There are three categories of training procedures [Werbos 1992]. These are supervised, unsupervised, and reinforcement.

In supervised training, a set of representative input and output vectors is selected or designed to fit the particular application. Training and testing sets are obtained which should have similar properties. The ANN is trained using the training set of input/output (I/O) vector pairs, then tested on the other set of I/O pairs, to see if the learned response is satisfactory and generalizable.

In supervised training, targets are specified and weights are adjusted as the ANN is tuned for proper performance.

In unsupervised training, specific target responses are not given. Instead, the ANN is adjusted according to a set of procedures to make generalizations about the selected input.

Reinforcement training procedures incorporate a system for evaluating and adjusting the network based on an internally calculated objective function. In addition, a critic may estimate a secondary objective function and/or its derivatives.

In all cases, a collection of correctly matched input and output vectors is needed to verify and validate the ANN's performance.

The section on mathematical procedures describes some of the operations performed during training. Several error measures used as stopping conditions for training are also described there. Many variations and combinations of training procedures have been developed to address particular objectives.

Backpropagation Training:

Training a MLP using backpropagation is of particular interest to the NN community. The following paragraphs describe a typical training

procedure. The description is not intended to optimize the procedure, nor is it intended to restrict creative variations which abound.

Suppose a MLP similar to that illustrated in Figure 4 is to be trained using backpropagation.

Given:

1. A functional description of the ANN has been developed, and the abstract model suggests that an ANN transfer function between an input space and a target space is appropriate. A target (desirable) output for each individual input vector can be determined.
2. The mathematical tools and procedures are such that useful preliminary design information can be obtained from the multi-platform NASA NETS simulation package.
3. The architecture of the MLP has been specified, so that the number of layers and nodes per layer is known; and the MLP is fully connected.
4. A representative set of training vectors, $X|T$, is available. A set of testing vectors for evaluation of the accuracy and generalization capabilities of the trained MLP is also available.
5. Variable design parameters, such as stopping conditions and learning rate, have been considered.
6. Activation procedures within each node have been specified.
7. Training will be based on the backpropagation procedures used by NETS.
8. Update procedures and timing procedures will be based on those used by NETS.

Training may proceed as follows:

Let, $X|T = (x(1), x(2), x(3), \dots, x(j), \dots, x(n), t(1), t(2), t(3), \dots, t(k), \dots, t(p))$ be a pattern where the x terms are MLP input, and the t terms are MLP target output. The MLP has n input nodes and p output nodes.

Step 1. Determine stopping conditions.

- A. Set the maximum number of iterations, $MaxIter$.**

$MaxIter$ is the maximum number of times each $X|T$ pattern vector will be processed. It equals the maximum number of epochs to allow before stopping the backpropagation training, regardless of its performance error at that time.

- B. Set the maximum error tolerance, $MaxErTol$.**

$MaxErTol$ is the maximum difference to be tolerated between the actual and target output of the successfully trained MLP. When the output

error for the current or final epoch, say ErO_{tEp} , is less than $MaxErTol$, training is stopped.

The error between actual and target output is computed for each node(k) in the output layer, for each training vector pattern, $X|T$. If input vector X has target T and actual output Y , the ErO_t for each output node(k) is computed as $t(k) - y(k)$. The maximum absolute value of all such ErO_t for a single epoch is the $MaxErO_t$ for that epoch. The root mean square of all such ErO_t is the $RmsErO_t$ for that epoch. The output error for the epoch, ErO_{tEp} , may be the maximum of $RmsErO_t$ and $MaxErO_t$. Various options for computing these errors exist, but considering both the range and distribution of individual output errors is common practice.

Step 2. Set the epoch errors to zero. Process each pattern in the training set (the entire epoch) and then check stopping conditions. Continue until the error is acceptable or the maximum number of iterations through the entire training set is reached.

A. Initialize variables as needed.

For the first epoch only, initialize the ANN parameters such as the learning constant, B , where $0 < B < 1$. Initialize the weights for each weight matrix to small random values.

For each epoch, set the epoch errors, ErO_{tEp} , $RmsErO_t$ and $MaxErO_t$, to zero.

B. Select a pattern vector in the training set, say $X|T$, and process it. Continue until each pattern vector in the training set has been processed.

1. For the selected pattern vector, $X|T$, complete the forward pass and compute the output error for each output node.

a. Process input layer.

For each node(j) in the input layer, transmit the input $x(j)$ to each neuron(i) in the following hidden layer.

b. Process each hidden layer, progressing in order from the layer following the input layer, to the one immediately preceding the output layer.

For each node(i) in the first hidden layer, compute $S(i)$ as the sum of $w(i,j)*x(j)$. Compute $y(i) = F(S(i))$, using an activation function such as $F(S) = 1/(1 + \exp(-S))$. Note the derivative, $F'(S) = [F(S)][1 - F(S)]$. Save $S(i)$ for the backward pass and computing $F'(S)$. Transmit $y(i)$ to each neuron of the next hidden layer or the output layer.

For each additional hidden layer, compute, for each neuron, the weighted sum of inputs, S , and the neuron output, $F(S)$. Save S and transmit $F(S)$ to the next layer.

c. Process output layer.

For each neuron(k) in the output layer, compute $S(k)$, the weighted sum of inputs from each

node(i) of the previous hidden layer. Compute $y(k) = F(S(k))$ and transmit to the external system, saving S .

Compute the output error for each output node(k) for this pattern vector, $X|T$, as $ErO_t = t(k) - y(k)$. Increment computations for the epoch errors $RmsErO_t$ and $MaxErO_t$.

2. For the selected pattern vector, $X|T$, complete the backpass, updating the weights [Parker, 1985; Rumelhart, Hinton & Williams, 1986; Werbos, 1974].

a. Backpropagate the output layer to the immediately preceding hidden layer.

1) Compute the hidden layer errors.

For each neuron(i) in the hidden layer, compute its final error based on its contribution to the output layer error and the rate of change of its activation function, $F(S(i))$ with respect to its net input, $S(i)$.

Compute the incoming error, $ErIn(i)$ as the sum of the weighted output layer errors, $[w(k,i)][t(k)-y(k)]$ for each output neuron(k). Note that the final error of the output layer node(k) is easily computed as $ErO_t = ErFin(k) = t(k) - F(S(k))$.

Compute the final error, $ErFin(i)$ as the product of the incoming error and the derivative $F'(S(i))$. Thus, $ErFin(i) = [ErIn(i)][F(S(i))][1-F(S(i))]$.

2) Adjust the output layer weights.

For each neuron(k) in the output layer, adjust the weights along its incoming connection from the previous hidden layer. Use the generalized delta rule designed to eventually minimize the output error.

For each weight, $w(k,i)$, compute its change, $DelWt(k,i)$, as the product of the learning constant, B ; the node output error $ErO_t = ErFin(k)$; and the net input, $S(k)$. Thus, $DelWt(k,i) = B * ErFin(k) * S(k)$.

Update the weight $w(k,i)$ by adding $DelWt(k,i)$.

b. Backpropagate the hidden layer to the immediately preceding layer. Repeat for each hidden layer.

1) If the layer immediately preceding the current hidden layer is not the input layer, backpropagate the errors.

For each neuron(j) in the preceding layer, compute incoming error, $ErIn(j)$ as the sum of the weighted errors, $w(i,j)*ErFin(i)$ that neuron(i) transmitted to each neuron(j) in the current hidden layer.

Compute the final error of neuron(j), $ErFin(j)$ as the product of the incoming error, $ErIn(j)$ and the derivative, $F'(S(j))$.

2) Adjust the weights of the current hidden layer.

For each neuron(i) in the current hidden layer, adjust the weights from each neuron(j) in the immediately preceding layer (closer to or equal to the input layer).

For each weight, $w(i,j)$, leading into node(i), compute its change, $\Delta w(i,j)$, as the product of the learning constant, B; the final node error $ErFin(i)$; and the net input, $S(i)$. Thus,
$$\Delta w(i,j) = B * ErFin(i) * S(i).$$

Update the weight $w(i,j)$ by adding $\Delta w(i,j)$.

C. Check stopping conditions.

Compute the epoch errors $RmsErOt$ and $MaxErOt$ and compare their maximum, $ErOtEp$, with the maximum error tolerated, $MaxErTol$. Increment the number of training epochs and compare with the maximum number allowed, $MaxIter$. If the epoch errors are less than $MaxErTol$ OR the number of epochs equals $MaxIter$, halt the training. Otherwise, continue.

Backpropagation Modifications:

There are numerous modifications of backpropagation training which address such issues as entrapment in local minima, generalization, and speed of training [Reed, Oh and Marks 1992; Wasserman 1989]. The newest standards committee is addressing performance measure methodology for backpropagation training. The NASA NETS software package maintained by Robert Shelton of NASA/JSC is the current default standard ANN for MLP's trained by backpropagation. It offers many features not detailed in the above algorithm. The backpropagation algorithm in [Caudill and Butler, 1992] was heavily referenced, as suggested by Paradigms Chair, Prof. Tzanakou.

learning, performance objectives (goals), performance measures, reinforcement training, reinforcement training over time, static reinforcement training, supervised training, stopping conditions, testing set, training, training set, unsupervised training, validation, verification.

UPDATE PROCEDURES

Training procedures can be applied to differing architectures and to differing update procedures. The latter involve the timing of training iterations with regard to data presentation and weight adjustment order.

Update procedures are established to govern the timing of updates when ANN's are being trained. In some cases of backpropagation training, an

entire batch of I/O pairs or patterns is presented once to the ANN and errors are saved for a batch update at the end of this epoch. This procedure is repeated until the ANN has learned the entire set or batch of training patterns. In other cases, weights are updated after each iteration, which is the presentation of a single pattern or I/O pair. The selection of update procedure is application dependent. Some training schemes involve the use of data generated during the operation of a manufacturing plant, where weight updates are performed after each observation. Sometimes these observations are recorded for reuse. Other times they are forgotten. In some cases, information is accumulated until the entire training set has been presented, and then weight updates are performed (batch learning). Choice of technique is application dependent. It depends on factors such as whether performance of the resulting ANN is more important than the speed with which training and validation and verification take place [Werbos 1992].

batch training (epoch training), epoch training, interactive training, iteration, off-line training, on-line training, pattern training, presentation of a pattern, real-time training, update procedure.

PARADIGMS

A paradigm can be characterized by specification of its components. The overall system goal provides an application specific direction for the selection of generic components from a toolbox. Performance variables will be analyzed to estimate the success of the design. Error measures can be selected and tailored to fit particular needs. Once the goals are established and evaluation procedures are outlined, the component selection can be refined. Starting with known configurations and examples, modifications can be tried as the design procedure is refined.

Once a trial configuration is selected, the mathematical procedures, architecture, numerical values, variable parameters and activation procedures can be assembled. The training procedures and update procedures are quite paradigm specific. In

particular, the training procedures are complex enough to allow many variations.

Definitions of a few well-known paradigms and closely related terms follow. Complete specification of the individual paradigms is still underway, and this list is not claimed to be comprehensive.

action-dependent adaptive critic, action network, adaptive control, ANN models, Adaline, adaptive, adaptive control, adaptive critic system, adaptive resonance theory networks (ART, ART!, ART2, ART3), associative memory, attractor network, autoassociative memory, avalanche network, backpropagation, backpropagation of utility, backpropagation through time, bidirectional associative memory (BAM), bidirectional counterpropagation network, Boltzmann machine, chaos, clustering, competitive learning, content addressable memory, control signal, counterpropagation, critic network, delta rule, direct inverse control, dual heuristic programming, distributed representation, dynamic (excitation control systems), error backpropagation, error critic, feedback competition, feedback network, feedforward network, forecasting, forwards propagation, functional link network, generalization, globalized dual heuristic programming, gradient, gradient ascent, gradient descent, gradient following, habituation, heteroassociative memories, heuristic dynamic programming (HDP), hierarchical network, higher-order neural network, hill-climbing, Hopfield network, incremental backpropagation, instar, Kohonen self-organizing network, lateral inhibition, least mean square rule, local learning, long-term depression (LTD), long-term potentiation (LTP), Mexican hat, multilayer perceptron, neural adaptive control, neuroamine, neuromodulator, neurotransmitter, neurocontroller, neuroidentification, open loop response, outstar, padaline (polynomial adaline), parallel distributed processing, pattern recognition, perceptron, perceptron, convergence procedure, postsynaptic potential (PSP), probabilistic neural network (PNN), recurrent network, self-organizing, self-organizing map (SOM), (self-organizing feature map), (topology-conserving map), (topology-preserving map), self-organization, self-organizing feature map, simulated annealing, simultaneous backpropagation, simultaneous-recurrent networks, supervised control, temporal difference methods, time-delay neural network, time-lagged recurrence, topology-conserving map, topology-preserving map, truncation training, vector quantization (VQ), adaptive vector quantization, learning vector quantization (LVQ), Widrow-Hoff rule.

SOURCES

The definitions and explanations above were drawn from many sources, and will continue to be refined and supplemented. Some of the major

sources of ideas are cited below. Personal communications from a large number of individuals were considered in formulating this draft.

The glossary as presented here has not yet been reviewed by all of those making suggestions. The definitions as used here have been modified to blend the contributions received, so they cannot be construed to represent the collective opinion of the contributors.

REFERENCES AND BIBLIOGRAPHY

- Amari, S. and M. A. Arbib. 1977. "Competition and Cooperation in Neural Nets." in J. Metzler, ed. *Systems Neuroscience*. Academic Press, Inc., NY 179. pp. 119-165.
- Anderson, D. Z. (ed.) 1987. *Neural Information Processing Systems*. New York: American Institute of Physics.
- Anderson, James A. and Edward Rosenfeld. 1988. *Neurocomputing: Foundations of Research*. The MIT Press, Cambridge, MA.
- Anderson, J. A., J. W. Silberstein, S. A. Ritz and R. S. Jones. 1977. *Brain State in a Box*. Psychological Review. 84. pp. 413-451.
- Arbib, Michael A. and J. Buhmann. 1992. "Neural Networks", in *Encyclopedia of Artificial Intelligence*. 2nd Ed. (Stuart C. Shapiro, Editor-in-Chief). Wiley Interscience. pp. 1016-1060.
- Baffes, Paul T. 1992. *Nets Users Guide*. Software Technology Branch. Lyndon B. Johnson Space Center. NASA. COSMIC. Athens, Ga.
- Barto, A. G. and R. S. Sutton. 1981. "Landmark Learning: An Illustration of Associative Search." *Biol. Cybern.* 42, pp. 1-8.
- Carpenter, G. and S. Grossberg. 1986. "Neural Dynamics of Category Learning and Recognition: Attention, Memory Consolidation, and Amnesia." In *Brain Structure, Learning and Memory* (AAAS Symposium Series). eds. J. Davis, R. Newburgh and E. Wegman.
- Carpenter, G. and S. Grossberg. 1987. "ART 2: Self-organization of Stable Category Recognition Codes for Analog Input Patterns." *Applied Optics*. 26(23) pp. 4919-30.
- Caudill, Maureen and Charles Butler. 1992. *Understanding Neural Networks: Computer Explorations*. Vol. 1 and 2. MIT Press, Inc. Cambridge, Mass.
- Cover, T. M. 1965. "Geometrical and Statistical Properties of Systems of Linear Inequalities with Applications in Pattern Recognition." *IEEE Trans. Electronic Computers*. EC-14. pp 326-334.
- Dai, Han-Sen. 1992. *System Identification Using Neural Networks*. Ph.D. Dissertation. UCLA. Los Angeles, CA.

DARPA Neural Network Study Final Report. 1989. Lincoln Lab. MIT, TR 840.

Eberhart, Russell C. 1990. Standardization of Neural Network Terminology. *IEEE Transactions on Neural Networks*, Volume 1, Number 2, June, 1990. pp. 244-245.

Eberhart, Russell C. and Roy W. Dobbins. 1990. **Neural Network PC Tools A Practical Guide.** Academic Press, Inc. San Diego.

Faggin, Federico and Carver Mead. 1990. "VLSI Implementation of Neural Networks." in Zornetzer, Steven F., Joel L. Davis and Clifford Lau (eds.). **An Introduction to Neural and Electronic Networks.** Academic Press.

Freeman, W. J., Y. Yao and B Burke. 1988. "Central Pattern Generating and Recognizing in Olfactory Bulb: A Correlation Learning Rule." **Neural Networks.** 1. 277-288.

Frye, Robert C., Rietman, Edward A. and Wong, Chee C. 1991. "Back-Propagation Learning and Nonidealities in Analog Neural Network Hardware." *IEEE Transactions on Neural Networks.* Vol. 2, No. 1, Jan. 1991. pp. 110-117.

Fukushima, K. and S. Miyake. 1982. Neocognitron: A New Algorithm for Pattern Recognition Tolerant of Deformations and Shifts in Position. *Pattern Recognition* 15(6) pp. 455-69.

Fukushima, K. S. Miyake, and T Ito. 1983. Neocognitron: a Neural Network Model for a Mechanism of Visual Pattern Recognition. *IEEE Transactions on Systems, Man and Cybernetics.* SMC-13. pp. 826-834.

Goldberg, David E. 1989. **Genetic Algorithms in Search, Optimization and Machine Learning.** Addison-Wesley. Reading, MA.

Gleick, J. 1987. **Chaos: Making a New Science.** Viking. NY.

Gluck, R., Han-Sen Dei and Walter J. Karplus. 1992. "On-orbit Nonlinear Structural Parameters Realization via Artificial Neural Networks." **The AIAA/ASME/ASCE/AHS/ASC 33rd Structures, Structural Dynamics and Materials Conference.** April 1992. Dallas, TX.

Grossberg, S. 1967. "Nonlinear Difference-Differential Equations in Prediction and Learning Theory." *Proc. Nat. Acad. Sci. USA.* 58. 1329-1334.

Grossberg, S. 1973. "Contour Enhancement, Short-Term Memory, and Consistencies in Reversing Neural Networks." *Studies in Applied Mathematics.* 52. pp. 21,257.

Grossberg, Stephen. 1974. "Classical and Instrumental Learning by Neural Networks." *Progress in Theoretical Biology.* Vol. 3, pp. 51-141. New York: Academic Press.

Grossberg, Stephen. 1982. **Studies of Mind and Brain.** Dordrecht, The Netherlands: Reidel.

Grossberg, S. 1987. Competitive Learning: from Interactive Activation to Adaptive Resonance. *Cognitive Science.* 11. pp. 23-63.

Guyton, A. C. 1968. **Textbook of Medical Physiology.** 3rd Ed. W. B. Saunders Company, Philadelphia.

Hebb, D. O. 1949. **The Organization of Behavior.** New York. Wiley.

Hecht-Nielsen, R. 1987. **Counterpropagation Networks.** Applied Optics. 26(23). pp. 4979-84.

Hecht-Nielsen, Robert. 1989. **Neurocomputing.** Addison-Wesley Publishing Co. Menlo Park, CA.

Hertz, J., A. Krogh and R. G. Palmer. 1991. "Introduction to the Theory of Neural Computation." **Santa Fe Institute Studies in the Sciences of Complexity.** Addison-Wesley Publishing Co., Inc. Reading, Mass.

Hinton, G. E., T. J. Sejnowski and D. H. Ackley. 1986. "Boltzmann Machines: Constraint Satisfaction Networks that Learn." *Cog. Sci.* 9. pp. 147-169.

Hinton, G. E. and T. J. Sejnowski. 1986. Learning and Relearning in Boltzman Machines. in Rumelhart, D. E. and J. L. McClelland (eds.). 1986. **Parallel and Distributed Processing (Vols. 1 and 2).** Cambridge, MA: MIT Press.

Hopfield, John J. 1982. "Neural Networks and Physical Systems with Emergent Collective Computational Abilities." **Proceedings of National Academy of Science, USA.** Vol 79, pp. 2554-2558, April, 1982.

Hopfield, J. J. and D. W. Tank. 1985. "Neural Computation in Optimization Problems." *Biological Cybernetics.* 52. pp. 141-152.

Hopfield, J. J. and D. W. Tank. 1986. "Computing with Neural Circuits: A Model." *Science.* 233. pp. 625-633.

Jay, Frank and J. A. Goetz (eds.). 1988. **IEEE Standard Dictionary of Electrical and Electronic Terms.** ANSI/IEEE Std. 100-1988 4th Edition. IEEE. NY. 1270 p.

Klimasauskas, Casimir C. 1992. "Hybrid Technologies: More Power for the Future." **Advanced Technology for Developers,** 1. (Aug.) pp. 17-20.

Kohonen, Tuevo. 1988. **Self-organization and Associative Memory.** 2nd Ed. Springer-Verlag NY.

Kosko, Bart. 1988. "Bidirectional Associative Memories." *IEEE Transactions on Systems, Man and Cybernetics,* vol SMC-L8. pp. 49-60.

Kosko, Bart. 1993s. **Fuzzy Thinking.** Hyperion / Disney.

Kraft, L. G. and D. Campagna. 1990. "A Summary Comparison of CMAC Neural Network and Traditional Adaptive Control Systems." **Neural Networks for Control.** W. T. Miller, R. Sutton, and P. Werbos. MIT Press. Cambridge, MA.

- Kurkova, Vera. 1992. "Kolmogorov's Theorem and Multilayer Neural Networks." *Neural Networks*. 5:3. pp. 501-506.
- Kuschewski, John G., Stefan Hui and S. H. Zak. 1993. "Application of Feedforward Neural Networks to Dynamical System Identification and Control." *IEEE Transactions on Control Systems Technology*. Vol. 1. No. 1. March, 1993. pp. 37-39.
- Langari, Reza and Hamid R. Berenji. 1992. "Fuzzy Logic in Control Engineering." in White, David A. and Donald A. Sofge (eds.) 1992. *Handbook of Intelligent Control Neural, Fuzzy, and Adaptive Approaches*. Van Nostrand Reinhold. NY.
- Lippman, R. P. 1987. "An Introduction in Computing with Neural Nets." *IEEE Transactions on Acoustics, Speech, and Signal Processing*. 4(2). pp. 4-22.
- Lippmann, R. P., B. Gold, and M. L. Malpass. 1987. "A Comparison of Hamming and Hopfield Neural Nets for Pattern Recognition." *Technical Report 769*. Lincoln Laboratory. MIT.
- Masters, Timothy. 1993. *Practical Neural Network Recipes in C++*. Academic Press, Inc. San Diego. 493 p.
- McCulloch, W. W. and W. Pitts. 1943. "A Logical Calculus of the Ideas Imminent in Nervous Activity." *Bulletin of Mathematical Biophysics* Vol. 5 pp. 115-33.
- McClelland, J. L. and D. E. Rumelhart. 1986. *Parallel Distributed Processing: Explorations in the Microstructure of Cognition*. 2 Volumes. MIT Press. Cambridge, Mass.
- Mead, Carver. 1989. *Analog VLSI and Neural Systems*. Addison-Wesley Publishing Co., Inc. Reading, Mass.
- Melsa, Peter J. W. 1989. *Neural Networks: A Conceptual Overview*. TRC-89-08. Tellabs Research Center. Mishawaka, IN 46545.
- Miller, W. T., R. Sutton and P. Werbos. 1990. *Neural Networks for Control*. MIT Press. Cambridge, MA.
- Minsky, M. L. and S. Pappert. 1969. *Perceptrons: an Introduction to Computational Geometry*. Cambridge, MA: MIT Press.
- Narendra, K. S. and K. Parthasarathy. 1990. "Identification and Control of Dynamical Systems using Neural Networks." *IEEE Trans. Neural Networks*. Vol. 1, pp. 4-27. Mar. 1990.
- Nguyen, D. H. and B. Widrow. 1990. "Neural Networks for Self-learning Control Systems." *IEEE Control Systems Magazine*. Vol 10, pp. 18-23. Apr. 1990.
- Padgett, Mary Lou (ed.). 1992a. *Simulation*. Special Issue on Neural Networks: Model Development for Applications. Vol. 58. No.5. May 1992.
- Padgett, Mary Lou. (ed.) 1992b. *Proceedings of the Third Workshop on Neural Networks-- Academic/Industrial/NASA/Defense: Tutorials and Technical Interchange*. (Auburn U., AL, Feb. 1992; Houston, TX, Nov. 1992) SCS. San Diego.
- Padgett, Mary Lou and Walter J. Karplus. (eds.) 1993. *Proceedings of the Fourth Workshop on Neural Networks -- Academic / Industrial / NASA / Defense: Tutorials and Technical Interchange*. (San Francisco) SCS. San Diego.
- Padgett, Wayne T., Mary Lou Padgett and T. A. Roppel. 1993. "Simulation and the Design of Training Sets for Supervised Learning in Neural Networks." *Proceedings of the 1993 Summer Computer Simulation Conference*, July, 1993. Boston, MA. SCS. San Diego. pp. 1054-1059.
- Padgett, Mary Lou and Wayne T. Padgett. 1993. "Tutorial: Neural Networks, Fuzzy Systems and Computational AI--Applications, Examples and Standards." *Proceedings of the 1993 Summer Computer Simulation Conference*, July, 1993. Boston, MA. SCS. San Diego. pp. 1059-1065.
- Padgett, Mary Lou and T. A. Roppel, 1992. "Neural Networks and Simulation: Modeling for Applications." *Simulation*. Vol. 58: No. 5, May 1992. pp. 295-305.
- Pao, Yo-Han. 1989. *Adaptive Pattern Recognition and Neural Networks*. Addison-Wesley Publishing Co. Reading, MA.
- Park, D. C., M. A. El-Sharkawi and R. J. Marks II. 1991. "An Adaptively Trained Neural Network." *IEEE Transactions on Neural Networks*. Vol. 2, No. 3. 334-345.
- Parker, D. B. 1985. *Learning-logic* (REPORT TR-47) Cambridge MA: MIT Center for Research in Computation Economics Management Science.
- Pineda, F. J. 1988. "Generalization of Backpropagation to Recurrent and Higher Order Networks." in *Neural Information Processing Systems*, ed. Dana Z. Anderson, pp. 602-11. NY: American Institute of Physics.
- Reed, R., S. Oh and R. J. Marks. 1992. "Regularization Using Jittered Training Data." *International Joint Conference on Neural Networks*. Baltimore, MD.
- Reilly, Douglas L. and Leon N. Cooper. 1990. "An Overview of Neural Networks: Early Models to Real World Systems." in Zornetzer, Steven F., Joel L. Davis and Clifford Lau. (eds.) *An Introduction to Neural and Electronic Networks*. Academic Press. pp. 227-248.
- Rosenblatt, Frank. 1958. "The Perceptron: A Probabilistic Model for Information Storage and Organization in the Brain." *Psychological Review*. 65: 386-408.
- Rosenblatt, F. 1958. *The Perceptron, a Theory of Statistical Separation in Cognitive Systems*. Report no. VG-1196-G-1. Cornell Aeronautical Laboratory, Ithaca.
- Rosenblatt, R. 1959. *Principles of Neurodynamics*. New York: Spartan Books.

- Rumelhart, D. E. and J. L. McClelland (eds.). 1986. *Parallel and Distributed Processing (Vols. 1 and 2)*. Cambridge, MA: MIT Press.
- Rumelhart, D.E., G. E. Hinton, and R. J. Williams. 1986. "Learning Internal Representations by Error Propagation." in D. E. Rumelhart and J. L. McClelland (eds.) *Parallel Distributed Processing (Vol. 1. Foundations)*. Cambridge, MA: MIT Press.
- Savely, R. R. Lea, R. Shelton, J. Villareal, and L. Wang. 1990. "Overview of Advanced Architectures Research and Development Activities in the Software Technology Branch." *Proceedings of the First Workshop on Neural Networks: Academic / Industrial / NASA / Defense* (Auburn, AL Feb., 1990) ed. Mary Lou Padgett. SCS. San Diego, CA 3-14.
- Sejnowski, T. J., 1991. "Neuroscience for Neural Networks." Tutorial Notes. *IJCNN*. Seattle, WA July 8-12, 1991. pp. 1-65.
- Sejnowski, T. J. and C. R. Rosenberg. 1987. Parallel Networks that Learn to Pronounce English Text. *Complex Systems*. 1:145-68.
- Shapiro, Stuart C. (ed.). 1992. *Encyclopedia of Artificial Intelligence*. 2nd Ed.
- Shannon, C. E. 1948. "The Mathematical Theory of Communication." *Bell System Tech J.* 27, 379-423, 623-656.
- Skarda, C. A. and W. J. Freeman. 1987. "How the Brain Makes Chaos in Order to Make Sense of the World." *Behav. Brain Sci.* 10, 161-195.
- Sietsma, Jocelyn and Robert J. F. Dow. 1991. "Creating Artificial Neural Networks that Generalize." *Neural Networks*. Vo. 4, No. 1, pp. 67-79.
- Szu, Harold. 1986. "Fast Simulated Annealing." in *Neural Networks for Computing* (Snowbird, 1986). ed. J. S. Denker, American Institute of Physics. NY. pp. 420-425.
- Wasserman, Philip D. 1989. *Neural Computing: Theory and Practice*. Van Nostrand Reinhold. NY.
- Webster, Dennis B., M. L. Padgett, G. S. Hines and D. L. Sirois. 1984. "Determining the Level of Detail in a Simulation Model -- A Case Study." *Computers in Industrial Engineering*. Vol. 8, No. 3/4. Dec. 1984. PP. 215-225.
- Werbos, P. 1974. *Beyond Regression: New tools for prediction and analysis in the behavioral sciences*. Ph.D. thesis, Harvard University, Cambridge, MA.
- Werbos, Paul. 1992. "Neurocontrol and Supervised Learning: An Overview and Evaluation." *Handbook of Intelligent Control Neural, Fuzzy, and Adaptive Approaches*. Van Nostrand Reinhold. NY. pp. 65-90.
- White, David A. and Donald A. Sofge (eds.) 1992. *Handbook of Intelligent Control Neural, Fuzzy, and Adaptive Approaches*. Van Nostrand Reinhold. NY.
- Widrow, Bernard. 1962. Generalization and information storage in networks of adaline "neurons." In M. C. Yovitz, G. T. Jacobi, and G. D. Goldstein (eds.). *Self organizing systems 1962*. pp. 435-461. Washington DC: Spartan.
- Widrow, B. 1959. Adaptive Sampled-data Systems, a Statistical Theory of Adaptation. *1959 IRE WESCON Convention Record*, part 4. New York: Institute of Radio Engineers.
- Widrow, B. and M. E. Hoff. 1960. "Adaptive Switching Circuits." In *Institute of Radio Engineers, Western Electronic Show and Convention, Wescon Convention Record*. 4. pp. 96-104.
- Widrow, B. and M. A. Lehr. 1990. "30 Years of Adaptive Neural Networks: Perceptron, Madaline and Backpropagation." *Proc. IEEE*. Vol 78, pp. 1415-1442, Sept. 1990.
- Widrow, Bernard and S. D. Stearns. 1985. *Adaptive Signal Processing*. Englewood Cliffs, NJ: Prentice-Hall.
- Widrow, Bernard and Rodney Winter. 1990. "Neural Nets for Adaptive Filtering and Adaptive Pattern Recognition." in Zornetzer, Steven F., Joel L. Davis and Clifford Lau (eds.). *An Introduction to Neural and Electronic Networks*. Academic Press. pp. 249-271.
- Zadeh, Lotfi A. 1992. "The Calculus of Fuzzy If/Then Rules." *AI Expert*. March. pp. 23-27.
- Zornetzer, Steven F., Joel L. Davis and Clifford Lau (eds.). 1990. *An Introduction to Neural and Electronic Networks*. Academic Press.

IEEE CONFERENCE DETAILED FINANCIAL REPORT - PART 1: INCOME

This form should be completed only for IEEE sponsored or cosponsored Conferences. The care taken in filling out this report will lead to a more accurate projection of your Conference's net surplus or loss.

NOTE: All income items may be expressed in U.S. Dollars or in local currency.

Full title of Conference IEEE INTERNATIONAL SYMPOSIUM ON EVOLUTIONARY COMPUTATION

Dates of Conference 26-27 October 1995

INCOME

REGISTRATION FEES

| | Quantity | Fee | = | Budget | Interim Report | Final Report |
|------------------------------|------------|--------------|---|------------------|----------------|--------------|
| In Advance-Members (ICNN) | 100 | x 275 | = | \$ 27,500 | \$ _____ | \$ _____ |
| In Advance-members | 50 | x 300 | = | 15,000 | _____ | _____ |
| In Advance-Reduced Rate | 20 | x 150 | = | 3,000 | _____ | _____ |
| In advance - Non Members | 30 | x 350 | = | 10,500 | _____ | _____ |
| At Conference - Nonmembers | 10 | x 400 | = | 4,000 | _____ | _____ |
| At Conference - Reduced Rate | 10 | x 200 | = | 2,000 | _____ | _____ |
| Total Registrants | <u>220</u> | Total | | <u>\$ 62,000</u> | <u>_____</u> | <u>_____</u> |

CONFERENCE PUBLICATION SALES

| | | | | | | |
|---------------------------|------------|--------------|---|------------------|--------------|--------------|
| To Members | 100 | x 90 | = | \$ 9,000 | _____ | _____ |
| To Non Members | 100 | x 120 | = | 12,000 | _____ | _____ |
| To IEEE Hq. | 700 | x 60 | = | 42,000 | _____ | _____ |
| Total Publications | <u>900</u> | Total | | <u>\$ 63,000</u> | <u>_____</u> | <u>_____</u> |

EXHIBITS

| | | | | | |
|--------------|----------|---|-----------------|--------------|--------------|
| Tables | x | = | \$ 0 | _____ | _____ |
| Booths | 5 x 1000 | = | 5,000 | _____ | _____ |
| Booths | 2 x 500 | = | 1,000 | _____ | _____ |
| | x | = | | _____ | _____ |
| Total | | | <u>\$ 6,000</u> | <u>_____</u> | <u>_____</u> |

SOCIAL FUNCTIONS

| | | | | | | |
|-----------------------|-----|------|---|-----------------|--------------|--------------|
| As per list (banquet) | 150 | x 45 | = | \$ 6,750 | _____ | _____ |
| Total | | | | <u>\$ 6,750</u> | <u>_____</u> | <u>_____</u> |

ALL OTHER (List here or attach details).

| | | | | | | |
|---------------------|-----------|--------------|----------|-------------------|--------------|--------------|
| <u>Tutorials</u> | <u>80</u> | <u>x 300</u> | <u>=</u> | <u>24,000</u> | <u>_____</u> | <u>_____</u> |
| Total | | | | <u>\$ 24,000</u> | <u>_____</u> | <u>_____</u> |
| Total Income | | | | <u>\$ 161,750</u> | <u>_____</u> | <u>_____</u> |

NOTE: BE SURE TO COMPLETE AND RETURN ALL FINANCIAL FORMS TOGETHER ("SUMMARY REPORT", "PART 1: INCOME", "PART II: EXPENSE" AND "SOCIAL FUNCTIONS").

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520-00-0011

SUMMARY FINANCIAL REPORT FOR IEEE SPONSORED OR COSPONSORED CONFERENCES

See reverse side for instructions on how to complete this form

CONFERENCE

1. Full title of Conference IEEE INTERNATIONAL SYMPOSIUM ON EVOLUTIONARY COMPUTATION
 2. Dates of Conference 26 - 27 October 1995
 3. Location of Conference (full name and address)
Sheraton Hotel/Langley Hotel : Perth - Western Australia

TYPE OF REPORT/CURRENCY USED

4. Indicate type of report by checking one box:

Budget Interim Report Final Report

5. All income and expense figures below must be in U.S. Dollars. For Conferences outside the U.S.A., indicate here the local currency (e.g., Swiss Francs) and the conversion rate used (local currency units per 1U.S. Dollar) and date.

Local Currency: U.S.Dollars Conversion rate: _____ Date of Conversion rate: _____

| INCOME | Budget | Interim Report | Final Report |
|-----------------------------------|------------|----------------|--------------|
| 6. Registration Fees | \$ 62,000 | \$ _____ | \$ _____ |
| 7. Conference Publication Sales | 63,000 | _____ | _____ |
| 8. Exhibits | 6,000 | _____ | _____ |
| 9. Social Functions | 6,750 | _____ | _____ |
| 10. All Other Conference Receipts | 24,000 | _____ | _____ |
| 11. Total Conference Income | 161,750 | _____ | _____ |
| 12. Conference Loans | 10,000 | _____ | _____ |
| 13. Total Receipts | \$ 171,750 | \$ _____ | \$ _____ |

| EXPENSES | Budget | Interim Report | Final Report |
|-----------------------------------|------------|----------------|--------------|
| 14. Promotion | \$ 24,000 | \$ _____ | \$ _____ |
| 15. Conference Publications | 27,500 | _____ | _____ |
| 16. Exhibits | 3,000 | _____ | _____ |
| 17. Social Functions | 22,390 | _____ | _____ |
| 18. Administration | 30,500 | _____ | _____ |
| 19. All Other Conference Expenses | 25,000 | _____ | _____ |
| 20. Total Conference Expense | 132,390 | _____ | _____ |
| 21. Loan Repayments | 10,000 | _____ | _____ |
| 22. Total Outlays | \$ 142,390 | \$ _____ | \$ _____ |

SURPLUS / LOSS

23. Total Receipts (13) \$171,750 24. Total Outlays (22) \$142,390
 25. Surplus (Loss)-(Item 23 less Item 24) \$29,360

POST CONFERENCE DISTRIBUTION

Surplus (Loss in Item 25 to be distributed as follows:
 % Share \$ Distributed

| Cosponsor Entity | % Share | \$ Distributed |
|------------------|---------|----------------|
| a. _____ | _____ | _____ |
| b. _____ | _____ | _____ |
| c. _____ | _____ | _____ |
| d. _____ | _____ | _____ |
| Surplus (Loss) | | \$ _____ |

CONFERENCE FINANCIAL INSTITUTION

Name of Bank Unicredit
 Address 80 Broadway, Nedlands, Perth, WA 6009
 Conference Account Title IEEE Neural Network

Have you requested IEEE Conference Insurance? Yes No

SUBMITTED BY:

Name Y Attikiouzel Tel.No. (09)380 3134
 Address IEEE-WA Section, c/o CIIPS, E & E Engineering, The University of Western Australia, Nedlands 6009
 Conference Position General Chair

CONFERENCE SIGNATURE _____ SOCIETY SIGNATURE [Signature] Date 17 Aug 1993

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Tab #1
NNC Item III.B
January 1993

Minutes of November 19, 1993 ExCom Meeting

**Minutes of the IEEE Neural Networks Council
Executive Committee Meeting
November 19, 1993**

The meeting was called to order at 4:40 pm on November 19, 1993 by the NNC President, Russell C. Eberhart. The meeting was held at the North Raleigh Hilton in Raleigh NC.

In attendance were the following ExCom members:

| | |
|---------------------|---------------------------|
| Russell C. Eberhart | President |
| Patrick K. Simpson | Vice-President |
| Roy S. Nutter | Treasurer |
| Robert J. Marks II | Past President (by phone) |

The agenda was set and approved as follows:

Review of recent Action on VR Technical Committee by TAB
Approval of Revised 1994 NNC Budget

Eberhart presented the agenda and it was approved.

Eberhart gave the ExCom the results of the negative vote on the VR Technical Committee that was presented to TAB. The results of the vote to establish a VR Technical Committee at the TAB level was voted down at TAB. The forthcoming VR meetings were briefly discussed and it was decided that the initial actions of the AdCom to sponsor these meetings was still in effect and this decision would not hamper these future meetings. With that discussion closed.

Simpson presented a revised 1994 NNC Budget (attached) that showed a decrease in NNC Committee expenses and a reduced newsletter. A motion by Eberhart was made to approve the budget as presented. Nutter Seconded. Motion passed unanimously.

The meeting was adjourned at 4:55 pm.

Minutes were transcribed by Simpson.

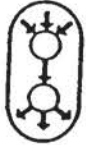
Tab #1
NNC Item III.C
January 1993

Proposed Editor Appointments



IEEE

NEURAL NETWORKS COUNCIL



Patrick K. Simpson
President

December 17, 1993

Dear NNC AdCom Members:

I respectfully submit the following two motions for a consent agenda vote at the January 22, 1994 AdCom Meeting.

BACKGROUND:

In accordance with the Bylaws of the IEEE Neural Networks Council (NNC), Article III, Section 12 states

THE TERMS OF THE OFFICE FOR THE EDITORS OF THE COUNCIL'S PERIODICALS ARE EACH TO BE FOR TWO YEARS RENEWABLE TWICE. UPON A VACANCY OR AN EXPIRATION OF A TERM, THE PRESIDENT MAY APPOINT A QUALIFIED INDIVIDUAL TO AN EDITOR POST WITH THE ADVICE OF THE NOMINATIONS AND APPOINTMENTS COMMITTEE AND WITH THE CONSENT OF ADCOM. NO EDITOR MAY SERVE MORE THAN SIX YEARS IN THE SAME POST.

James C. Bezdek will be completing his first year as the Editor of the Transactions on Fuzzy Systems and does not require renewal.

Robert J. Marks II will be completing his second year as the Editor of the Transactions on Neural Networks and requires renewal.

Wesley E. Snyder will be completing his second year as the Editor of the CoNNections Newsletter and requires renewal.

MOTION #1

I move that the President's appointment of Robert J. Marks II as Editor of the IEEE Transactions on Neural Networks for the two year term 1994-1995 be approved by the AdCom.

MOTION #2

I move that the President's appointment of Wesley E. Snyder as Editor of the IEEE Neural Networks Council CoNNections Newsletter for the two year term 1994-1995 be approved by the AdCom.

Sincerely,

A handwritten signature in black ink, appearing to read "Patrick K. Simpson".

Patrick K. Simpson

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San Diego, CA 92121 USA
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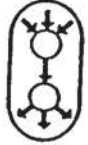
Tab #1
NNC Item III.D
January 1993

Proposed Committee Chair Appointments



IEEE

NEURAL NETWORKS COUNCIL



Patrick K. Simpson
President

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December 17, 1993

Dear NNC AdCom Members:

I respectfully submit the following motion for a consent agenda vote at the January 22, 1994 AdCom Meeting.

BACKGROUND:

In accordance with the Constituion and Bylaws of the IEEE Neural Networks Council (NNC), the Standing Committe Chairs are appointed on an annual basis by the President of the NNC.

MOTION:

I move that the President's nominations of the following individuals be approved as the chairs of the associated standing committees by the AdCom:

James Bezdek
Stamatios Kartalopoulos
Mary Lou Padget
Edgar Sanchez-Sinencio
Mohamad El-Sharkawi
Colin Weil
Karen Haines
Donald Wunsch
Thomas Caudell
David Fogel

Meetings Committee
Publications Committee
Standards Committee
Fellows Committee
Video Tutorials Committee
Regional Interest Group Committee
Educational Activities Committee
Distinguished Lecturers Committee
Virtual Reality Technical Committee
Evolutionary Computation Technical Committee

Sincerely,

A handwritten signature in black ink, appearing to read "Patrick K. Simpson".

Patrick K. Simpson

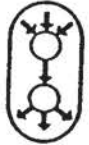
Tab #2
NNC Item IV.A.1
January 1993

Neural Networks Council Financial Status



IEEE

NEURAL NETWORKS COUNCIL



Patrick K. Simpson
President

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E-mail: xm8@sdcc12.ucsd.edu

December 17, 1993

Dear NNC AdCom Members:

Over the past three months I have reviewed the financial status of the IEEE Neural Networks Council with three objectives in mind:

- Determine what the Council's cash worth and net worth were at the end of 1993;
- Determining how the Council became cash poor; and
- Determine how the Council can move to a strong cash position.

The results of my review are summarized below. I will expand on each area in the President's Report at the January AdCom Meeting.

The Council's Current Cash/Net Worth

- 1993 Net Worth 203.0K
- 1993 Cash Worth 46.5k

How The Council Became Cash Poor

- TNN Page Over-runs
- Off-Shore Meetings
- CD-ROM
- Travel Reimbursements
- Rapid Diversification
- INNS Dissolution
- No Society Fees

How the Council Can Move to a Strong Cash Position

- Reduce AdCom Expenses
- Increase Trans. Subscription Rates
- Reduce Reliance on Meeting Income
- Add New Journal(s)

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

Attached is a set of spreadsheets that summarize the following financial information:

- Transactions & Journal Income/Expense & Projections
- Meeting Income/Expense
- Five-Year Projection (Baseline)
- Five-Year Projection (Options)

Respectfully Submitted,

A handwritten signature in black ink, appearing to read 'P. K. Simpson', written in a cursive style.

Patrick K. Simpson

1993 IEEE Neural Networks Council Document
 Robert J. Marks II Library Archive
 NNC Yearly Actuals

| | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 |
|--|-------|--------------|--------------|---------------|--------------|---------------|
| | Worth | | | | Estimated* | Budget |
| INCOME | | | | | | |
| Membership Fees | | 17.1 | 22.7 | 0.0 | 0.0 | 0.0 |
| Inter-Soc. Transfers | | 54.4 | 62.8 | 80.7 | -0.1 | 0.0 |
| Interest Income | | 14.4 | 11.3 | 4.2 | -0.4 | 6.0 |
| Trans. Neural Networks | | 59.9 | 84.1 | 146.9 | 254.2 | 282.2 |
| Trans. Fuzzy Systems | | 0.0 | 0.0 | 0.0 | 125.8 | 125.8 |
| Newsletter | | 0.0 | 0.0 | 1.6 | 0.0 | 0.5 |
| Non Periodical Sales | | 7.5 | 1.3 | 1.2 | 4.7 | 5.0 |
| Meetings / Conferences | | 25.9 | 287.9 | 80.4 | 461.5 | 1267.0 |
| Rounding / Other | | 1.1 | 1.0 | 0.0 | 0.0 | 0.0 |
| Income Totals | | 180.3 | 471.1 | 315.0 | 845.7 | 1686.5 |
| | | | | | | |
| EXPENSE | | | | | | |
| Trans. Neural Networks | | 92.9 | 156.8 | 247.2 | 258.0 | 270.9 |
| Trans. Fuzzy Systems | | 0.0 | 0.0 | 0.0 | 93.0 | 96.0 |
| Newsletter | | 0.0 | 14.2 | 36.4 | 36.7 | 20.0 |
| Non Periodical Sales | | 7.7 | 11.8 | 12.1 | 14.3 | 7.0 |
| Meetings/Conferences | | -12.4 | 208.7 | 50.5 | 252.1 | 1170.0 |
| IEEE Admin | | 5.1 | 8.5 | 12.1 | 18.5 | 24.0 |
| President's Office | | 11.7 | 31.3 | 20.5 | 7.9 | 7.5 |
| AdCom Committee | | 13.7 | 29.2 | 27.5 | 35.8 | 15.0 |
| Technical Committee | | 0.0 | 13.8 | 17.5 | 29.7 | 0.0 |
| Executive Committee | | 0.0 | 0.0 | 4.5 | 6.5 | 5.0 |
| Standards Committee | | 0.0 | 0.0 | 0.0 | 7.5 | 5.0 |
| Awards Committee | | | | | | 5.0 |
| RIG Committee | | | | | | 2.5 |
| Education Committee | | | | | | 2.5 |
| Products Committee | | | | | | 5.0 |
| Rounding / Other | | 22.9 | 10.4 | 18.4 | 10.0 | 10.0 |
| CD-ROM | | 0.0 | 0.0 | 29.1 | 0.0 | 0.0 |
| Expense Totals | | 141.6 | 484.7 | 475.8 | 770.0 | 1645.4 |
| | | | | | | |
| | | | | | | |
| SURPLUS | | 38.7 | -13.6 | -160.8 | 75.7 | 41.1 |
| | | | | | | |
| *Reviewed by T. Skrinikov at TAB Meeting on 11/19/93 | | | | | | |

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 NNC Meeting In/Ex

| Conference | Seed | Incom | Expens | # Att | Cst/Att | # Pprs | Att/Ppr | NNC % | Comments |
|-------------------------|------|-------|--------|-------|---------|--------|---------|-------|--|
| ICNN 87 - San Diego | | | | | | | | | San Diego Section Seed |
| ICNN 88 - San Diego | 5.3 | 583.2 | 447.7 | | | | | 50% | San Diego Section Seed |
| IJCNN 89 - DC | 41.0 | 644.2 | 417.3 | 2047 | 0.204 | 428 | 4.7827 | 50% | IEEE Lead |
| IJCNN 90 -DC | 40.0 | 320.8 | 255.8 | | | | | 40% | INNS Lead |
| IJCNN 90 - San Diego | 61.0 | 515.4 | 412.9 | 1700 | 0.243 | 429 | 3.9627 | 50% | IEEE Lead |
| IJCNN 91 - Seattle | 50.0 | 434.4 | 412.9 | 1422 | 0.290 | 662 | 2.148 | 50% | INNS Lead |
| IJCNN 91 - Singapore | 44.7 | 353.3 | 369.4 | | | | | 50% | IEEE Lead, Split Loss w/ Singapore Section |
| FUZZ 92 - San Diego | 40.0 | 245.4 | 142.7 | 512 | 0.279 | 185 | 2.7676 | 90% | 10% to San Diego Section |
| IJCNN 92 - Baltimore | | 483.6 | 330.0 | 1325 | 0.249 | 619 | 2.1405 | 45% | IEEE Lead, 5% to Baltimore Section |
| COGANN 92 - Baltimore | | | | | | | | 100% | |
| IJCNN 92 - Beijing | | | | | | | | | |
| RNNS 92 - Rostov On Don | | 18.1 | 21.4 | 137 | 0.156 | 149 | 0.9195 | 100% | |
| FUZZ-ICNN 93 - SF | | | | 1129 | | 650 | 1.7369 | 75% | 150.0 Surplus |
| VRAIS 93 - Seattle | | | | | | | | 100% | |
| IJCNN 93 - Nagoya | | | | | | | | 33% | |

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 TNN Projection

| CASH FLOW | | | | | | | | | | | | |
|--------------------|--------|-------|--------|----------------------------------|--------|--------|--------|--------|--------|-------|--------|-------|
| | 90 | 90 | 91 | 91 | 92 | 92 | 93 | 93 | 94 | 94 | 95 | 95 |
| | Income | Count | Income | Count | Income | Count | Income | Count | Income | Count | Income | Count |
| Pages | | 328 | | 640 | | 1076 | | 1300 | | 1300 | | 1608 |
| Member | 54.4 | 5940 | 62.8 | 6700 | 80.3 | 7093 | 82.7 | 7341 | 101.4 | 7500 | 142.5 | 7500 |
| Non-Member | 13.4 | 101 | 29.7 | 376 | 44.7 | 465 | 60.0 | 533 | 74.3 | 550 | 119.3 | 450 |
| All Trans | 39.2 | | 45.1 | | 51.6 | | 62.5 | | 62.5 | | 104.5 | |
| Other | 24.4 | | 32.0 | | 50.4 | | 44.0 | | 44.0 | | 62.7 | |
| Total | 131.4 | 5940 | 169.6 | 376 | 227.0 | 7558 | 249.2 | 7874 | 282.2 | 8050 | 429.0 | 7950 |
| COST PER PAGE | | | | | | | | | | | | |
| | COST | PAGES | CST/PG | PERCENTAGE OF INCOME BY CATEGORY | | | | | | | | |
| 1990 | 92.9 | 328 | 283.23 | | | | | | | | | |
| 1991 | 156.8 | 640 | 245.00 | | | | | | | | | |
| 1992 | 247.2 | 1076 | 229.74 | 1990 | 0.41 | 0.10 | 0.30 | 0.19 | 1.00 | | | |
| 1993 | 258.0 | 1300 | 198.46 | 1991 | 0.37 | 0.18 | 0.27 | 0.19 | 1.00 | | | |
| 1994 | 273.0 | 1300 | 210.00 | 1992 | 0.35 | 0.20 | 0.23 | 0.22 | 1.00 | | | |
| 1995 | 361.8 | 1608 | 225.00 | 1993 | 0.33 | 0.24 | 0.25 | 0.18 | 1.00 | | | |
| 1996 | 394.0 | 1608 | 245.00 | 1994 | 0.31 | 0.26 | 0.25 | 0.18 | 1.00 | | | |
| 1997 | 426.1 | 1608 | 265.00 | 1995 | 0.30 | 0.27 | 0.25 | 0.18 | 1.00 | | | |
| 1998 | 466.3 | 1608 | 290.00 | | | | | | | | | |
| SUBSCRIPTION RATES | | | | | | | | | | | | |
| | INCOM | EXPNS | SRPLS | PAGES | Mem | ActMem | NonMem | NM Act | | | | |
| 1990 | 131.4 | 92.9 | 38.5 | 328 | 10.00 | 9.16 | 75.00 | 132.67 | | | | |
| 1991 | 169.6 | 156.8 | 12.8 | 640 | 10.00 | 9.37 | 75.00 | 78.99 | | | | |
| 1992 | 227.0 | 247.2 | -20.2 | 1076 | 12.00 | 11.32 | 95.00 | 96.13 | | | | |
| 1993 | 254.2 | 258.0 | -3.8 | 1300 | 12.00 | 11.27 | 114.00 | 112.57 | | | | |
| 1994 | 282.2 | 270.9 | 11.3 | 1300 | 14.00 | 13.30 | 137.00 | 135.09 | | | | |
| 1995 | 429.0 | 418.1 | 10.9 | 1608 | 20.00 | 19.00 | 300.00 | 265.00 | | | | |
| 1996 | 474.6 | 442.2 | 32.4 | 1608 | 22.00 | 20.90 | 325.00 | 292.50 | | | | |
| 1997 | 518.4 | 466.3 | 52.1 | 1608 | 24.00 | 22.80 | 350.00 | 315.00 | | | | |
| 1998 | 566.8 | 498.5 | 68.3 | 1608 | 26.00 | 24.70 | 375.00 | 337.50 | | | | |

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 TFS Projection

| CASH FLOW | | | | | | | | | | | | |
|--------------------|--------------|-------------|--------------|-------------|--------------|-------------|--------------|-------------|--------------|-------------|--------------|-------------|
| | 93 | 93 | 94 | 94 | 95 | 95 | 96 | 96 | 97 | 97 | 98 | 98 |
| | Income | Count | Income | Count | Income | Count | Income | Count | Income | Count | Income | Count |
| Pages | | 320 | | 320 | | 400 | | 480 | | 480 | | 560 |
| Member | 60.0 | 6666 | 67.5 | 7500 | 94.5 | 7500 | 125.6 | 7750 | 144.0 | 8000 | 163.4 | 8250 |
| Non-Member | 11.1 | 113 | 12.3 | 125 | 22.1 | 150 | 30.0 | 175 | 39.2 | 200 | 49.6 | 225 |
| All Trans | 44.0 | | 44.0 | | 55.0 | | 66.0 | | 66.0 | | 77.0 | |
| Other | 10.7 | | 10.7 | | 11.0 | | 13.2 | | 13.7 | | 16.8 | |
| Total | 125.8 | 6779 | 134.5 | 7625 | 182.6 | 7650 | 234.8 | 7925 | 262.9 | 8200 | 306.8 | 8475 |
| | | | | | | | | | | | | |
| COST PER PAGE | | | | | | | | | | | | |
| | COST | PAGES | CST/PG | | | | | | | | | |
| 1993 | 93.0 | 320 | 290.63 | | | | | | | | | |
| 1994 | 96.0 | 320 | 300.00 | | | | | | | | | |
| 1995 | 110.0 | 400 | 275.00 | | | | | | | | | |
| 1996 | 132.0 | 480 | 275.00 | | | | | | | | | |
| 1997 | 136.8 | 480 | 285.00 | | | | | | | | | |
| 1998 | 168.0 | 560 | 300.00 | | | | | | | | | |
| | | | | | | | | | | | | |
| SUBSCRIPTION RATES | | | | | | | | | | | | |
| | INCOM | EXPNS | SRPLS | PAGES | Mem | ActMem | NonMem | NM Act | | | | |
| 1993 | 125.8 | 93.0 | 32.8 | 320 | 10.00 | 9.00 | 100.00 | 98.00 | | | | |
| 1994 | 134.5 | 96.0 | 38.5 | 320 | 10.00 | 9.00 | 100.00 | 98.00 | | | | |
| 1995 | 182.6 | 110.0 | 72.6 | 400 | 14.00 | 12.60 | 150.00 | 147.00 | | | | |
| 1996 | 234.8 | 132.0 | 102.8 | 480 | 18.00 | 16.20 | 175.00 | 171.50 | | | | |
| 1997 | 262.9 | 136.8 | 126.1 | 480 | 20.00 | 18.00 | 200.00 | 196.00 | | | | |
| 1998 | 306.8 | 168.0 | 138.8 | 560 | 22.00 | 19.80 | 225.00 | 220.50 | | | | |

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 JACI Projection

| YEARLY CASH FLOW | | | | | | | | |
|-------------------------|--------------|-------------|--------------|--------------------|--------------|-------------|--------------|-------------|
| | 95 | 95 | 96 | 96 | 97 | 97 | 98 | 98 |
| | Income | Count | Income | Count | Income | Count | Income | Count |
| Pages | | 352 | | 352 | | 382 | | 382 |
| Member | 28.8 | 2000 | 40.5 | 2500 | 54.0 | 3000 | 69.3 | 3500 |
| Non-Member | 14.7 | 100 | 17.4 | 125 | 29.4 | 150 | 38.6 | 175 |
| All Trans | 48.4 | | 48.4 | | 52.5 | | 52.5 | |
| Other | 9.7 | | 11.1 | | 11.5 | | 12.0 | |
| Total | 101.6 | 2100 | 117.4 | 2625 | 147.4 | 3150 | 172.4 | 3675 |
| COST PER PAGE BREAKDOWN | | | | | | | | |
| | | | COST | PAGES | CST/PG | | | |
| | | | 1995 | 96.8 | 352 | 275.00 | | |
| | | | 1996 | 100.3 | 352 | 285.00 | | |
| | | | 1997 | 114.6 | 382 | 300.00 | | |
| | | | 1998 | 120.3 | 382 | 315.00 | | |
| REVENUE PROJECTION | | | | SUBSCRIPTION RATES | | | | |
| | INCOM | EXPNS | SRPLS | PAGES | Mem | ActMem | NonMem | NM Act |
| 1995 | 101.6 | 96.8 | 4.8 | 352 | 16.00 | 14.40 | 150.00 | 147.00 |
| 1996 | 117.4 | 100.3 | 17.1 | 352 | 18.00 | 16.20 | 175.00 | 171.50 |
| 1997 | 147.4 | 114.6 | 32.8 | 382 | 20.00 | 18.00 | 200.00 | 196.00 |
| 1998 | 172.4 | 120.3 | 52.1 | 382 | 22.00 | 19.80 | 225.00 | 220.50 |

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 NNC Forecast Baseline

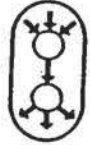
| | 1994 | 1995 | 1996 | 1997 | 1998 |
|-------------------------|---------------|---------------|---------------|---------------|---------------|
| INCOME | | | | | |
| Interest Income | 6.0 | 15.2 | 35.5 | 67.2 | 96.2 |
| Trans. Neural Networks | 282.2 | 429.0 | 474.6 | 518.4 | 566.8 |
| Trans. Fuzzy Systems | 125.8 | 182.6 | 234.8 | 262.9 | 306.8 |
| J. of App. Comp. Intel. | 0.0 | 101.6 | 117.4 | 147.4 | 172.4 |
| Newsletter | 0.5 | 1.0 | 1.0 | 1.5 | 1.5 |
| Non Periodical Sales | 5.0 | 7.5 | 10.0 | 12.5 | 12.5 |
| Meetings / Conferences | 1267.0 | 1214.1 | 1250.0 | 2006.0 | 1250.0 |
| Income Totals | 1686.5 | 1951.0 | 2123.3 | 3015.9 | 2406.2 |
| EXPENSE | | | | | |
| Trans. Neural Networks | 270.9 | 361.8 | 394.0 | 426.1 | 466.3 |
| Trans. Fuzzy Systems | 96.0 | 110.0 | 132.0 | 136.8 | 168.0 |
| J. of App. Comp. Intel. | 0.0 | 96.8 | 100.3 | 114.6 | 120.3 |
| Newsletter | 20.0 | 30.0 | 32.5 | 35.0 | 37.5 |
| Non Periodical Sales | 7.0 | 10.0 | 12.5 | 15.0 | 15.0 |
| Meetings/Conferences | 1170.0 | 1029.2 | 1050.0 | 1625.0 | 1050.0 |
| IEEE Admin | 24.0 | 26.4 | 29.0 | 31.9 | 35.1 |
| President's Office | 7.5 | 7.5 | 8.0 | 8.5 | 9.0 |
| Administrative Comm | 15.0 | 17.5 | 20.0 | 22.5 | 25.0 |
| Executive Committee | 5.0 | 5.0 | 6.0 | 7.5 | 9.0 |
| Standards Committee | 5.0 | 5.0 | 6.0 | 7.5 | 9.0 |
| Awards Committee | 5.0 | 5.0 | 6.0 | 7.5 | 9.0 |
| RIG Committee | 2.5 | 3.0 | 4.0 | 5.0 | 5.0 |
| Education Committee | 2.5 | 3.0 | 4.0 | 5.0 | 5.0 |
| Products Committee | 5.0 | 5.0 | 6.0 | 7.5 | 9.0 |
| Rounding / Other | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Expense Totals | 1645.4 | 1725.2 | 1820.3 | 2465.4 | 1982.2 |
| CASH FLOW | 41.1 | 225.8 | 303.0 | 550.5 | 424.0 |

| | 1994 | 1995 | 1996 | 1997 | 1998 |
|-------------------------|---------------|---------------|---------------|---------------|---------------|
| INCOME | | | | | |
| Interest Income | 6.0 | 15.2 | 35.5 | 67.2 | 96.2 |
| Trans. Neural Networks | 282.2 | 429.0 | 474.6 | 518.4 | 566.8 |
| Trans. Fuzzy Systems | 125.8 | 182.6 | 234.8 | 262.9 | 306.8 |
| J. of App. Comp. Intel. | 0.0 | 101.6 | 117.4 | 147.4 | 172.4 |
| Trans. on Evol. Comp. | 0.0 | 0.0 | 101.6 | 117.4 | 147.4 |
| Trans. on Virt. Reality | 0.0 | 0.0 | 101.6 | 117.4 | 147.4 |
| Trans. on Fin. Engin. | 0.0 | 0.0 | 101.6 | 117.4 | 147.4 |
| Newsletter | 0.5 | 1.0 | 1.0 | 1.5 | 1.5 |
| Non Periodical Sales | 5.0 | 7.5 | 10.0 | 12.5 | 12.5 |
| Meetings / Conferences | 1267.0 | 1214.1 | 1250.0 | 2006.0 | 1250.0 |
| Income Totals | 1686.5 | 1951.0 | 2428.1 | 3368.1 | 2848.4 |
| EXPENSE | | | | | |
| Trans. Neural Networks | 270.9 | 361.8 | 394.0 | 426.1 | 466.3 |
| Trans. Fuzzy Systems | 96.0 | 110.0 | 132.0 | 136.8 | 168.0 |
| J. of App. Comp. Intel. | 0.0 | 96.8 | 100.3 | 114.6 | 120.3 |
| Trans. on Evol. Comp. | 0.0 | 0.0 | 96.8 | 100.3 | 114.6 |
| Trans. on Virt. Reality | 0.0 | 0.0 | 96.8 | 100.3 | 114.6 |
| Trans. on Fin. Engin. | 0.0 | 0.0 | 96.8 | 100.3 | 114.6 |
| Newsletter | 20.0 | 30.0 | 32.5 | 35.0 | 37.5 |
| Non Periodical Sales | 7.0 | 10.0 | 12.5 | 15.0 | 15.0 |
| Meetings/Conferences | 1170.0 | 1029.2 | 1050.0 | 1625.0 | 1050.0 |
| IEEE Admin | 24.0 | 26.4 | 29.0 | 31.9 | 35.1 |
| President's Office | 7.5 | 7.5 | 8.0 | 8.5 | 9.0 |
| Administrative Comm | 15.0 | 17.5 | 20.0 | 22.5 | 25.0 |
| Executive Committee | 5.0 | 5.0 | 6.0 | 7.5 | 9.0 |
| Standards Committee | 5.0 | 5.0 | 6.0 | 7.5 | 9.0 |
| Awards Committee | 5.0 | 5.0 | 6.0 | 7.5 | 9.0 |
| RIG Committee | 2.5 | 3.0 | 4.0 | 5.0 | 5.0 |
| Education Committee | 2.5 | 3.0 | 4.0 | 5.0 | 5.0 |
| Products Committee | 5.0 | 5.0 | 6.0 | 7.5 | 9.0 |
| Rounding / Other | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Expense Totals | 1645.4 | 1725.2 | 2110.7 | 2766.3 | 2326.0 |
| SURPLUS | 41.1 | 225.8 | 317.4 | 601.8 | 522.4 |

| | 1994 | 1995 | 1996 | 1997 | 1998 |
|-------------------------|---------------|---------------|---------------|---------------|---------------|
| CASH FLOW | | | | | |
| Interest Income | 6.0 | 15.2 | 35.5 | 67.2 | 96.2 |
| Trans on Neural Network | 11.3 | 67.2 | 80.6 | 92.3 | 100.5 |
| Trans on Fuzzy System | 29.8 | 72.6 | 102.8 | 126.1 | 138.8 |
| J. of App. Comp. Intel. | 0.0 | 4.8 | 17.1 | 32.8 | 52.1 |
| Trans. on Evol. Comp. | 0.0 | 0.0 | 4.8 | 17.1 | 32.8 |
| Trans. on Virt. Reality | 0.0 | 0.0 | 4.8 | 17.1 | 32.8 |
| Trans. on Fin. Engr. | 0.0 | 0.0 | 4.8 | 17.1 | 32.8 |
| Newsletter | -19.5 | -29.0 | -31.5 | -33.5 | -36.0 |
| Non Periodical Sales | -2.0 | -2.5 | -2.5 | -2.5 | -2.5 |
| Meetings/Conferences | 97.0 | 184.9 | 200.0 | 381.0 | 200.0 |
| IEEE Admin | -24.0 | -26.4 | -29.0 | -31.9 | -35.1 |
| AdCom, ExCom & Tech | -47.5 | -51.0 | -60.0 | -71.0 | -80.0 |
| Other (Roundoff) | -10.0 | -10.0 | -10.0 | -10.0 | -10.0 |
| SURPLUS | 41.1 | 225.8 | 317.4 | 601.8 | 522.4 |
| | | | | | |
| CASH INCOME | 41.1 | 225.8 | 317.4 | 601.8 | 522.4 |
| LOANS MADE | -121.0 | -160.0 | -125.0 | -160.0 | -160.0 |
| LOANS REPAYD | 161.5 | 121.0 | 160.0 | 125.0 | 160.0 |
| ADJ. INCOME | 81.6 | 186.8 | 352.4 | 566.8 | 522.4 |
| 93 Cash Worth 46.5K | | | | | |
| CASH WORTH | 128.1 | 314.9 | 667.3 | 1234.1 | 1756.5 |

Tab #2
NNC Item IV.A.2
January 1993

Neural Networks Council Member Societies Statistics



NEURAL NETWORKS COUNCIL

Patrick K. Simpson
President

PLEASE REPLY TO:
ORINCON Corporation
9363 Towne Centre Drive
San Diego, CA 92121 USA
Tel: (619) 455-5530 Ext. 267
Fax: (619) 453-9274
E-mail: xm8@sdcc12.ucsd.edu

December 17, 1993

Dear NNC AdCom Members:

The Neural Networks Committee was formed in 1988. In 1990, the Neural Networks Committee became the Neural Networks Council. Over these six years the Committee/Council has grown from ten participating societies to fifteen.

The attached table shows the number of society representatives that have attended each of the thirteen AdCom meetings that have been held since 1988. The number in parenthesis is the year the society joined the Committee/Council.

Below is a summary of each society's attendance reported in average number of representatives per AdCom meeting (total number of appearances divided by number of meetings):

| | | |
|------|------|---------|
| CAS | 1.08 | (14/13) |
| COMM | 0.62 | (8/13) |
| COMP | 1.2 | (6/5) |
| CS | 0.38 | (5/13) |
| EMB | 0.77 | (10/13) |
| IA | 0.22 | (2/9) |
| IE | 1.08 | (14/13) |
| IT | 0.38 | (5/13) |
| LEO | 0.23 | (3/13) |
| OE | 0.67 | (6/9) |
| PE | 0.6 | (3/5) |
| RA | 0.85 | (11/13) |
| SP | 0.23 | (3/13) |
| SIT | 1.67 | (5/3) |
| SMC | 0.70 | (9/13) |

This information is supplied as an information item.

Respectfully Submitted,

Patrick K. Simpson

Society Attendance at NNC AdCom Meetings

| | 9/18/93 - Seattle | 3/27/93 - San Francisco | 12/5/92 - Phoenix | 6/7/92 - Baltimore | 3/8/92 - San Diego | 7/8/91 - Seattle | 1/26/91 - Baltimore | 6/19/90 - San Diego | 1/16/90 - DC | 11/26/89 - Denver | 6/18/89 - DC | 11/28/88 - Denver | 7/24/88 - San Diego |
|-----------|-------------------|-------------------------|-------------------|--------------------|--------------------|------------------|---------------------|---------------------|--------------|-------------------|--------------|-------------------|---------------------|
| CAS (88) | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 |
| COMM (88) | 1 | 0 | 2 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 |
| COMP (92) | 2 | 0 | 2 | 2 | 0 | | | | | | | | |
| CS (88) | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 |
| EMB (88) | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | | |
| IA (90) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | | |
| IE (88) | 0 | 0 | 2 | 2 | 1 | 2 | 2 | 0 | 1 | 0 | 2 | 2 | 0 |
| IT (88) | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 |
| LEO (88) | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| OE (90) | 2 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | | | | |
| PE (92) | 1 | 0 | 1 | 1 | 0 | | | | | | | | |
| RA (88) | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 |
| SP (88) | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| SIT (93) | 1 | 2 | 2 | 2 | 0 | | | | | | | | |
| SMC (88) | 2 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 |

NEURAL NETWORKS COUNCIL - PERIODICAL SUBSCRIPTIONS

| S/C | T-NN | T-FUZZ | TOTAL | % |
|--------------|-------------|-------------|--------------|---------------|
| SP | 1625 | 1832 | 3457 | 22.8% |
| CAS | 1365 | 1303 | 2668 | 17.6% |
| IT | 396 | 219 | 615 | 4.1% |
| IE | 103 | 623 | 726 | 4.8% |
| C | 661 | 222 | 883 | 5.8% |
| EMB | 591 | 322 | 913 | 6.0% |
| COM | 755 | 472 | 1227 | 8.1% |
| OE | 29 | 51 | 80 | 0.5% |
| CS | 1137 | 1051 | 2188 | 14.4% |
| RA | 443 | 246 | 689 | 4.5% |
| SMC | 783 | 290 | 1073 | 7.1% |
| SIT | 2 | 1 | 3 | 0.0% |
| PES | 17 | 22 | 39 | 0.3% |
| IA | 66 | 322 | 388 | 2.6% |
| LEO | 119 | 81 | 200 | 1.3% |
| TOTAL | 8092 | 7057 | 15149 | 100.0% |

NEURAL NETWORKS MEMBER STATISTICS

| T-NN | Higher Grade | Student | Affiliate | Non Member |
|------|--------------|---------|-----------|------------|
| 1993 | 6292 | 975 | 74 | 533 |
| 1992 | 6191 | 840 | 62 | 465 |
| 1991 | 5630 | 1014 | 56 | 376 |
| 1990 | 4864 | 1016 | 50 | 191 |

| T-FUZZ | Higher Grade | Student | Affiliate | Non Member |
|--------|--------------|---------|-----------|------------|
| 1993 | 5998 | 742 | 55 | 115 |
| 1992 | n/a | n/a | n/a | n/a |
| 1991 | n/a | n/a | n/a | n/a |
| 1990 | n/a | n/a | n/a | n/a |

42-381 50 SHEETS RELEASABLE SQUARE
 42-382 100 SHEETS RELEASABLE SQUARE
 42-383 200 SHEETS RELEASABLE SQUARE
 42-384 500 SHEETS RELEASABLE SQUARE
 42-385 1000 SHEETS RELEASABLE SQUARE
 42-386 200 RECYCLED WHITE SQUARE
 Made in U.S.A.



*Send mail, regular
to Pat Simpson*



IEEE

TECHNICAL ACTIVITIES

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445 HOES LANE, P. O. BOX 1331, PISCATAWAY, NJ 08855-1331, U.S.A. (908) 562-3900 TELEX 833-233 FAX (908) 562-1571

(908) 562-

MEMORANDUM

Date: December 3, 1993
To: S/C Officers
From: Heidi Zazza-Roth
TAB Financial Analyst
Subject: 1994 S/C Budgets

Enclosed is a copy of your official 1994 Society/Council Budget as approved by the IEEE Executive Committee. If you are not continuing in your official S/C Officer position, please pass this document along to your successor. We look forward to working with you in 1994.

enc.

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IEEE SFC BUDGET INPUT INFORMATION
FOR THE PERIOD ENDING DECEMBER 31, 1994
PROJECT: NEURAL NETWORK COUNCIL
TAB INPUT INFORMATION

PAGE 0.01.

| DESCRIPTION | UNITS | PRIOR YEAR BUDGETS AND ACTUALS | | | | | 1993 | | 1994 | |
|------------------------------|---------|--------------------------------|---------|---------|---------|---------|---------|----------|---------|--------|
| | | -5 | -4 | -3 | -2 | -1 | BUDGET | FORECAST | | |
| INCOME PARAMETERS : | | | | | | | | | | |
| PAGE CHG BILLING RATE | B \$/PG | 110.00 | 110.00 | 110.00 | 110.00 | 110.00 | 110.00 | 110.00 | 110.00 | 110.00 |
| INTEREST ON RESERVES | B % | 6.50 | 7.00 | 7.00 | 7.50 | 7.00 | 5.00 | 3.50 | 3.50 | |
| STUDENT FEE | B X | 50.00 | 50.00 | 50.00 | 50.00 | 50.00 | 50.00 | 50.00 | 50.00 | |
| STUDENT OPTION PERIODIC | B X | 75.00 | 75.00 | 75.00 | 75.00 | 75.00 | 75.00 | 75.00 | 75.00 | |
| NO. OF FULL SUBS. | B | 996 | 991 | 991 | 972 | 948 | 900 | 900 | 900 | |
| FULL SUBSCRIPTION RATE | B \$ | 4850.00 | 5500.00 | 5960.00 | 6854.00 | 7995.00 | 8995.00 | 8995.00 | 9995.00 | |
| SECTION LIBRARY RATE | B \$ | 800.00 | 800.00 | 890.00 | 987.00 | 1098.00 | 1313.00 | 1313.00 | 1499.00 | |
| STUDENT CHAPTER RATE | B \$ | 460.00 | 500.00 | 575.00 | 656.00 | 745.00 | 892.00 | 892.00 | 1033.00 | |
| EXPENSE PARAMETERS : | | | | | | | | | | |
| FULL SUBS. EXP. COMMITMENT | B K\$ | 340.00 | 340.00 | 340.00 | 340.00 | 1000.00 | 1000.00 | 1000.00 | 1000.00 | |
| INDEXING CHARGE/IDX PAGE | B \$ | 200.00 | 230.00 | 230.00 | 230.00 | 260.00 | 256.00 | 280.00 | 280.00 | |
| T/J FULLY EDITED | B \$/PG | 43.00 | 43.00 | 43.00 | 43.00 | 42.00 | 35.00 | 37.00 | 37.00 | |
| T/J AUTHOR/CAMERA READY | B \$/PG | 7.10 | 7.10 | 7.10 | 7.10 | 8.00 | 8.40 | 10.00 | 10.00 | |
| MAG FULLY EDITED | B \$/PG | 67.00 | 75.00 | 75.00 | 75.00 | | | | | |
| MAG AUTHOR/CAMERA READY | B \$/PG | 11.10 | 12.50 | 12.50 | 12.50 | | | | | |
| PUBLICATION ADMINISTRATION : | | | | | | | | | | |
| -T/J/M PAGES | B \$/PG | 3.90 | 4.49 | 4.49 | 4.49 | 3.85 | 3.85 | 4.10 | 4.10 | |
| -T/J/M ISSUES | B \$/IS | 218.00 | 251.00 | 251.00 | 251.00 | 180.00 | 189.00 | 199.00 | 199.00 | |
| -NLMSLETTER | B \$/IS | 280.90 | 322.00 | 322.00 | 322.00 | | | | | |
| -CONF. RECORD | B \$/IS | 680.00 | 695.00 | 695.00 | 695.00 | | | | | |
| PAGE CHARGE EPNSE | B \$/PG | 16.50 | 20.00 | 20.00 | 20.00 | 22.00 | 23.00 | 23.00 | 23.00 | |
| HANDLG CHG PER NM SUB | B \$ | 7.00 | 7.35 | 7.75 | 7.75 | 8.35 | 9.00 | 4.00 | 4.00 | |

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IEEE S/C BUDGET INPUT INFORMATION
 FOR THE PERIOD ENDING DECEMBER 31, 1994
 PROJECT: NEURAL NETWORK COUNCIL
 S/C FEE, MEMBER STATISTICS AND SURPLUS/RESERVE ANALYSIS

PAGE 0.02

| DESCRIPTION | UNITS | -5 | PRIOR YEAR BUDGETS AND ACTUALS | | | | | 1993 BUDGET | 1994 IEEE FORECAST | 1994 S/C BUDGET |
|----------------------------|---------|------|--------------------------------|------|----|----|--|----------------|--------------------------|-----------------------|
| | | | -4 | -3 | -2 | -1 | | | | |
| SOCIETY/MEMBER FEE | B \$/YR | 8.00 | 8.00 | 8.00 | | | | | | |
| NO. MEMBERS, HIGHER GRADES | B | 3941 | | 4087 | | | | | | |
| | A | 4087 | | | | | | | | |
| NO. STUDENT MEMBERS | B | 594 | | 777 | | | | | | |
| | A | 777 | | | | | | | | |

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IEEE S/C BUDGET INPUT INFORMATION
 FOR THE PERIOD ENDING DECEMBER 31, 1994
 PROJECT: NEURAL NETWORK COUNCIL
 TAB INPUT INFORMATION

PAGE 0.03

| DESCRIPTION | UNITS | PRIOR YEAR BUDGETS AND ACTUALS | | | | | 1993 BUDGET | 1994 IEEE FORECAST | |
|------------------------------|---------|--------------------------------|---------|---------|---------|---------|-------------|--------------------|---------|
| | | -5 | -4 | -3 | -2 | -1 | | | |
| INCOME PARAMETERS : | | | | | | | | | |
| PAGE CHG BILLING RATE | B \$/PG | 110.00 | 110.00 | 110.00 | 110.00 | 110.00 | 110.00 | 110.00 | 110.00 |
| INTEREST ON RESERVES | B % | 6.50 | 7.00 | 7.00 | 7.50 | 7.00 | 5.00 | 3.50 | 3.50 |
| STUDENT FEE | B % | 50.00 | 50.00 | 50.00 | 50.00 | 50.00 | 50.00 | 50.00 | 50.00 |
| STUDENT OPTION PERIODIC | B % | 75.00 | 75.00 | 75.00 | 75.00 | 75.00 | 75.00 | 75.00 | 75.00 |
| NO. OF FULL SUBS. | B | 996 | 991 | 991 | 972 | 948 | 900 | 900 | 900 |
| FULL SUBSCRIPTION RATE | B \$ | 4850.00 | 5500.00 | 5960.00 | 6854.00 | 7995.00 | 8995.00 | 8995.00 | 9995.00 |
| SECTION LIBRARY RATE | B \$ | 800.00 | 800.00 | 890.00 | 987.00 | 1098.00 | 1313.00 | 1313.00 | 1459.00 |
| STUDENT CHAPTER RATE | B \$ | 460.00 | 500.00 | 575.00 | 650.00 | 745.00 | 892.00 | 892.00 | 1033.00 |
| EXPENSE PARAMETERS : | | | | | | | | | |
| FULL SUBS. EXP.COMMITLNT | B K\$ | 340.00 | 340.00 | 340.00 | 340.00 | 1000.00 | 1000.00 | 1000.00 | 1000.00 |
| INDEXING CHARGE/IDX PAGE | B \$ | 200.00 | 230.00 | 230.00 | 230.00 | 260.00 | 256.00 | 280.00 | 280.00 |
| T/J FULLY EDITED | B \$/PG | 43.00 | 43.00 | 43.00 | 43.00 | 42.00 | 35.00 | 37.00 | 37.00 |
| T/J AUTHOR/CAMERA READY | B \$/PG | 7.10 | 7.10 | 7.10 | 7.10 | 8.00 | 8.40 | 10.00 | 10.00 |
| MAG FULLY EDITED | B \$/PG | 67.00 | 75.00 | 75.00 | 75.00 | | | | |
| MAG AUTHOR/CAMERA READY | B \$/PG | 11.10 | 12.50 | 12.50 | 12.50 | | | | |
| PUBLICATION ADMINISTRATION : | | | | | | | | | |
| -T/J/M PAGES | B \$/PG | 3.90 | 4.49 | 4.49 | 4.49 | 3.85 | 3.85 | 4.10 | 4.10 |
| -T/J/M ISSUES | B \$/IS | 218.00 | 251.00 | 251.00 | 251.00 | 180.00 | 189.00 | 199.00 | 199.00 |
| -NEWSLETTER | B \$/IS | 280.90 | 322.00 | 322.00 | 322.00 | | | | |
| -CONF.RECORD | B \$/IS | 680.00 | 695.00 | 695.00 | 695.00 | | | | |
| PAGE CHARGE EPNSIE | B \$/PG | 16.50 | 20.00 | 20.00 | 20.00 | 22.00 | 23.00 | 23.00 | 23.00 |
| HANDLG CHG PER NM SUB | B \$ | 7.00 | 7.35 | 7.75 | 7.75 | 8.35 | 9.00 | 4.00 | 4.00 |

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IEEE S/C BUDGET INPUT INFORMATION
 FOR THE PERIOD ENDING DECEMBER 31, 1994
 PROJECT: NEURAL NETWORK COUNCIL
 S/C FEE, MEMBER STATISTICS AND SURPLUS/RESERVE ANALYSIS

PAGE 0.04.

| DESCRIPTION | UNITS | PRIOR YEAR BUDGETS AND ACTUALS | | | | | 1993 BUDGET | 1994 IEEE FORECAST | 1994 S/C BUDGET |
|--|-------------|--------------------------------|----|----------------|-------------------------|------------------|-----------------|--------------------------|-----------------------|
| | | -5 | -4 | -3 | -2 | -1 | | | |
| SOCIETY/MEMBER FEE | B \$/YR | | | | | | | | |
| NO. MEMBERS, HIGHER GRADES | B A | 5320 | | | | | | | |
| NO. STUDENT MEMBERS | B A | 1610 | | | | | | | |
| NO. AFFILIATES | B A | 70 | | | | | | | |
| TOTAL MEMBERSHIP | B A | 11535 4864 | | 4864 | | | | | |
| JAN.1 RESERVES K\$ | B K\$ A | | | 216.70 | 218.90 255.40 | 332.10 241.80 | 302.60 81.10 | 17.40 | 17.40 |
| SURPLUS/DEFICIT K\$ | B K\$ A | | | 2.20 217.50 | 76.70 40.60 9.50- | 60.80 207.10- | 63.70- | 181.60- | 202.40- |
| DEC.31 RESERVES K\$ | B K\$ A | | | 2.20 217.50 | 295.60 257.30 | 392.90 34.70 | 238.90 | 164.20- | 185.00- |
| JAN.1 RESERVES/MEMBER \$ | B \$/M A | | | | 45.00 | | | | |
| DEC.31 RESERVES/MEMBER \$ | B \$/M A | | | | 60.77 | | | | |
| SURPLUS AS % OF INCOME | B % A | | | 2.92 | 9.63 | 14.71 | 10.08- | 29.31- | 32.41- |
| SURPLUS AS % OF EXPENSE | B % A | | | 3.01 | 10.66 | 17.25 | 9.16- | 22.66- | 24.47- |
| SURPLUS AS % OF JAN.1 RES | B % A | | | | 35.03 | 18.30 | 21.05- | 1043.67- | 1163.21- |
| DEC.31 RES AS % OF INC. | B % A | | | 2.92 | 37.14 | 95.11 | 37.81 | 26.50- | 29.62- |
| DEC.31 RES AS % OF EXP. | B % A | | | 3.01 | 41.11 | 111.52 | 34.35 | 20.49- | 22.37- |
| RES AS % OF EXPENSE GUIDE (+/- 20%) | B % A | 100.00 | | 100.00 | 75.68 | 100.00 | 100.00 | 100.00 | 100.00 |

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IEEE S/C BUDGET INPUT INFORMATION
 FOR THE PERIOD ENDING DECEMBER 31, 1994

PAGE 0.03. 1

PROJECT: NEURAL NETWORK COUNCIL
 S/C MEMBERSHIP, FEES & PUBLICATION STATISTICS FOR : T-NN

| DESCRIPTION | UNITS | PRIOR YEAR BUDGETS AND ACTUALS | | | | | 1993 BUDGET | 1994 IEEE FORECAST | 1994 S/C BUDGET |
|--------------------------------|--------------|--------------------------------|----|--------------|--------------|--------------|-------------|--------------------|-----------------|
| | | -5 | -4 | -3 | -2 | -1 | | | |
| ISSUES PER YEAR | B I/YR | | | 4 | 6 | 6 | 6 | 6 | 6 |
| IEEE HDQ. EDITORIAL PRODUCTION | | | | | | | | | |
| -FULLY EDITED | B PG/YR A | | | 320 336 | 480 640 | 960 | 1056 | 1268 | 1268 |
| -AUTHOR/CAMERA READY | B PG/YR A | | | | | | | | |
| -NONI. | B PG/YR A | | | | | | | | |
| MEMBER PERIODICAL RATE | B \$/YR | | | 10.00 | 10.00 | 12.00 | 12.00 | 14.00 | 14.00 |
| NON SOC MEM. IEEE RATE, N | B \$/YR | | | 15.00 | 15.00 | 20.00 | 20.00 | 24.00 | 24.00 |
| NM LIST PRICE | B \$/YR | | | 75.00 | 75.00 | 95.00 | 114.00 | 137.00 | 137.00 |
| MEMBER COPIES | B A | | | 4000 4796 | 5320 5524 | 5200 6074 | 5524 | 6074 | 6074 |
| STUDENT COPIES | B A | | | | 1610 1019 | 1200 841 | 1019 | 841 | 841 |
| AFFILIATE COPIES | B A | | | | 70 50 | 60 62 | 56 | 62 | 62 |
| INDIV NM SUBS | B A | | | | 1000 191 | 200 376 | 376 | 376 | 376 |
| NON SOC MEM IEEE SUBS, N | B A | | | | | | 1055 | | |
| NON SOC STU IEEE SUBS, N | B A | | | | | | 122 | | |
| NON SOC AFF IEEE SUBS, N | B A | | | | | | 335 | | |
| PRINT RUN (COPIES/ISSUE) | B A | | | | 8000 | 8000 | 9650 | | |
| PERCENT PAGE CHG RETURN | B % | | | | | | 3.00 | 15.00 | 15.00 |
| EST. PRINT COST PER PAGE | B \$ | | | 175.00 | 184.00 | 193.00 | 187.00 | 180.00 | 180.00 |

P PART OF MEMBER FEE. C COMBINATION RATE WITH _____
 O MEMBER CHOOSES ONE AS PART OF FEE.
 N NON SOCIETY OR NON SPONSURING SOCIETY BUT IEEE MEMBER RATE

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IEEE S/C BUDGET INPUT INFORMATION
 FOR THE PERIOD ENDING DECEMBER 31, 1994
 PROJECT: NEURAL NETWORK COUNCIL
 S/C MEMBERSHIP, FEES & PUBLICATION STATISTICS FOR : T-FUZ

PAGE 0.03 2

| DESCRIPTION | UNITS | PRIOR YEAR BUDGETS AND ACTUALS | | | | | 1993 BUDGET | 1994 IEEE FORECAST | 1994 S/C BUDGET |
|----------------------------------|--------------|--------------------------------|----|----|----|----|----------------|--------------------------|-----------------------|
| | | -5 | -4 | -3 | -2 | -1 | | | |
| ISSUES PER YEAR | B I/YR | | | | | | 4 | 4 | 4 |
| IEEE HDQ. EDITORIAL PRODUCTION : | | | | | | | | | |
| -FULLY EDITED | B PG/YR A | | | | | | 320 | 320 | 320 |
| -AUTHOR/CAMERA READY | B PG/YR A | | | | | | | | |
| -NONE | B PG/YR A | | | | | | | | |
| MEMBER PERIODICAL RATE | B \$/YR | | | | | | 10.00 | 10.00 | 10.00 |
| NON SOC MEM. IEEE RATE, N | B \$/YR | | | | | | 15.00 | 15.00 | 15.00 |
| NM LIST PRICE | B \$/YR | | | | | | 100.00 | 100.00 | 100.00 |
| MEMBER COPIES | B A | | | | | | 2000 | 2000 | 2000 |
| STUDENT COPIES | B A | | | | | | | | |
| AFFILIATE COPIES | B A | | | | | | | | |
| INDIV NM SUBS | B A | | | | | | 100 | 100 | 100 |
| PRINT RUN (COPIES/ISSUE) | B A | | | | | | | | |
| PERCENT PAGE CHG RETURN | B % | | | | | | | | |
| EST. PRINT COST PER PAGE | B \$ | | | | | | 175.00 | 175.00 | 175.00 |

P PART OF MEMBER FEE. C COMBINATION RATE WITH _____
 U MEMBER CHOOSES ONE AS PART OF FEE.
 N NON SOCIETY OR NON SPONSORING SOCIETY BUT IEEE MEMBER RATE

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IEEE S/C BUDGET
 FOR THE PERIOD ENDING DECEMBER 31, 1994

PAGE 1 CODE 156

BUSINESS UNIT - 0110 NEURAL NETWORK COUNCIL
 COST CENTER - 00100 INTEREST INCOME

| DESCRIPTION | ACCOUNT NUMBER | PRIOR YEAR BUDGETS AND ACTUALS | | | | 1993 BUDGET | 1994 IEEE FORECAST | 1994 S/C BUDGET | |
|------------------|-------------------|--------------------------------|----|------|------|----------------|--------------------------|-----------------------|------|
| | | -5 | -4 | -3 | -2 | | | | |
| INTEREST-FIXED I | B 3910000000 A | | | 10.3 | 13.5 | 5.8 | 13.5 | 8.2 | 8.2 |
| INTEREST INCOME | B 3920000000 A | | | 1.9 | 2.2 | 1.5 | | | |
| LONG TERM INVST | B 3985000000 A | | | | | | | 2.8 | 8.5 |
| TOTAL REVENUE | B A | | | 14.4 | 11.3 | 4.3 | 13.5 | 11.0 | 16.7 |
| TOTAL NET | B A | | | 14.4 | 11.3 | 4.3 | 13.5 | 11.0 | 16.7 |

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REPORT PROCESSED
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IEEE S/C BUDGET
 FOR THE PERIOD ENDING DECEMBER 31, 1994

PAGE 1 CODE 157

BUSINESS UNIT - 0110 NEURAL NETWORK COUNCIL
 COST CENTER - 00400 TRANS ON NEURAL NETWORKS

| DESCRIPTION | ACCOUNT NUMBER | PRIOR YEAR BUDGETS AND ACTUALS | | | | -1 | 1993 BUDGET | 1994 IEEE FORECAST | 1994 S/C BUDGET |
|------------------|-------------------|--------------------------------|----|------|-------|------|-------------|--------------------|-----------------|
| | | -5 | -4 | -3 | -2 | | | | |
| S/C FEES HARD CD | B 3018000000 A | | | 16.8 | 22.1 | 21.7 | 29.6 | 32.0 | 32.0 |
| S/C FEES MICRO F | B 3018100000 A | | | | .1 | .1 | | .1 | .1 |
| ADVERTISING - EX | B 3101000000 A | | | | | 3.1 | | | |
| ADVERTISING - IN | B 3102000000 A | | | | .2 | 2.0 | | 2.0 | 2.0 |
| SUBSCRIPTIONS - | B 3202000000 A | | .1 | 13.4 | 75.0 | 19.0 | 42.9 | 51.5 | 51.5 |
| SUBSCRIPTIONS - | B 3205000000 A | | | 35.2 | 65.5 | 41.3 | 49.5 | 57.7 | 57.6 |
| AIRFREIGHT CHARG | B 3250000000 A | | | | | 1.4 | | | |
| AIRFREIGHT CHARG | B 3251000000 A | | | .4 | .5 | .6 | .5 | .6 | .6 |
| VOLUNTARY PAGE C | B 3310000000 A | | | 7.3 | 8.9 | 21.5 | 3.5 | 20.9 | 20.9 |
| TOTAL REVENUE | B A | | .1 | 35.2 | 140.5 | 60.3 | 126.0 | 164.8 | 164.7 |
| SALESMEN COMMISS | B 4032009201 A | | | | | .3 | | | |
| 2ND CLASS - EDIT | B 4201509201 A | | | | | 6.3 | | | |
| 2ND CLASS - EDIT | B 4202509201 A | | | | | 26.6 | | | |

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IEEE S/C BUDGET
 FOR THE PERIOD ENDING DECEMBER 31, 1994

PAGE 2 CODE 158

BUSINESS UNIT - 0110 NEURAL NETWORK COUNCIL
 COST CENTER - 00400 TRANS ON NEURAL NETWORKS

| DESCRIPTION | ACCOUNT NUMBER | PRIOR YEAR BUDGETS AND ACTUALS | | | | 1993 BUDGET | 1994 IEEE FORECAST | 1994 S/C BUDGET |
|-------------------|-------------------|--------------------------------|----|-------|-------|-------------|--------------------|-----------------|
| | | -5 | -4 | -3 | -2 | | | |
| FREIGHT & OTHER | U 420500000 A | | | | | .5 | | |
| AIR FREIGHT | U 420650000 A | | | | | 5.8 | | |
| PUB ADMIN CHARGE | U 430100000 A | | | 2.4 | 3.7 | 2.8 | 5.2 | 6.4 |
| EDITOR FEE | U 451300000 A | | | 2.4 | 4.3 | 5.0 | | 6.4 |
| EDITORIAL HEADQU | U 451400000 A | | | 13.8 | 20.6 | 20.2 | 37.0 | 46.9 |
| EDITORIAL REIMBU | U 451500000 A | | | 10.8 | 25.9 | 81.4 | | 46.9 |
| COMPOSITION | U 451500000 A | | .3 | 1.2 | 10.0 | 13.5 | 13.9 | 16.4 |
| INDEXING | U 4521509 01 A | | | 112.0 | 86.3 | 185.2 | 197.5 | 228.2 |
| MICROFICHE | U 453000000 A | | | 61.6 | 110.5 | 69.0 | | 228.2 |
| TEXT PAPER | U 453000000 A | | | .8 | 1.2 | 1.2 | 2.4 | 2.9 |
| CAMERA WORK-PRINT | U 454200000 A | | | 1.2 | 2.0 | 2.9 | | 2.9 |
| PRESS WORK-PRINT | U 454200000 A | | | .5 | 1.2 | 1.4 | 1.2 | 1.6 |
| BINDING-PRINT ED | U 4553009201 A | | | | | 25.0 | | |
| | U 4561009201 A | | | | | 3.8 | | |
| | U 458100000 A | | | | | 24.1 | | |
| | U 4582009201 A | | | | | 4.2 | | |

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IEEE S/C BUDGET
 FOR THE PERIOD ENDING DECEMBER 31, 1994

PAGE 3 CODE 159

BUSINESS UNIT - 0110 NEURAL NETWORK COUNCIL
 COST CENTER - 00400 TRANS ON NEURAL NETWORKS

| DESCRIPTION | ACCOUNT NUMBER | PRIOR YEAR BUDGETS AND ACTUALS | | | | | 1993 BUDGET | 1994 IEEE FORECAST | 1994 S/C BUDGET |
|------------------|-------------------|--------------------------------|----|---------------|----------------|----|----------------|--------------------|-----------------|
| | | -5 | -4 | -3 | -2 | -1 | | | |
| MAILING-PRT ED | B 4583009201 A | | | | | | 3.4 | | |
| LABEL PREPARATIO | B 4631009201 A | | | | | | 3.2 | | |
| SUBSCRIPTION HAN | B 4632000000 A | | | 8.3 | 10.5 | | 9.4 11.9 | 11.5 | 5.1 5.1 |
| VOLUNTARY PAGE C | B 4641000000 A | | | 1.3 | 2.2 | | 4.6 | .7 | 4.4 4.4 |
| PRIOR YR ADJMT | B 4999500000 A | | | | .2 | | | | |
| TOTAL EXPENSES | B A | | .3 | 129.0 87.3 | 123.8 157.9 | | 232.3 293.3 | 269.4 | 311.9 311.9 |
| TOTAL NLT | B A | | .2 | 93.8 10.2 | 16.7 51.3 | | 172.0 146.2 | 143.4 | 147.1 147.2 |

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REPORT PROCESSED
 10/20/93 RUN 1

IEEE S/C BUDGET
 FOR THE PERIOD ENDING DECEMBER 31, 1994

PAGE 1 CODE 160

BUSINESS UNIT - 0110 NEURAL NETWORK COUNCIL
 COST CENTER - 00401 TRANS ON FUZZY SYS

| DESCRIPTION | ACCOUNT NUMBER | PRIOR YEAR BUDGETS AND ACTUALS | | | | | 1993 BUDGET | 1994 IEEE FORECAST | 1994 S/C BUDGET |
|------------------|-------------------|--------------------------------|----|----|----|----|-------------|--------------------|-----------------|
| | | -5 | -4 | -3 | -2 | -1 | | | |
| S/C FEES HARD CD | B 3018000000 A | | | | | | 20.0 | 20.0 | 20.0 |
| SUBSCRIPTIONS - | B 3202000000 A | | | | | | 10.0 | 10.0 | 10.0 |
| NM ALL TRANS | B 3205000000 A | | | | | | 35.1 | 35.8 | 35.1 |
| TOTAL REVENUE | B A | | | | | | 65.1 | 65.8 | 65.1 |
| PUB ADMIN | B 4301000000 A | | | | | | 2.0 | 2.1 | 2.1 |
| EDITORIAL H.Q. | B 4514000000 A | | | | | | 11.2 | 11.8 | 11.8 |
| COMPOSITION | B 4521509 01 A | | | | | | 56.0 | 56.0 | 56.0 |
| INDEXING | B 4530000000 A | | | | | | .8 | .8 | .8 |
| SUBSCRIP HDLG | B 4632000000 A | | | | | | 9.0 | 4.0 | 4.0 |
| TOTAL EXPENSES | B A | | | | | | 79.0 | 74.7 | 74.7 |
| TOTAL NET | B A | | | | | | 13.9 | 8.9 | 5.6 |

1993 IEEE Neural Networks Council Document
 Robert J. Marks II Library Archive

REPORT PROCESSED
 10/20/93 RUN 1

IEEE S/C BUDGET
 FOR THE PERIOD ENDING DECEMBER 31, 1994

PAGE 1 CODE 161

BUSINESS UNIT - 0110 NEURAL NETWORK COUNCIL
 COST CENTER - 01499 PERIODICAL RELATED - OTHER

| DESCRIPTION | ACCOUNT NUMBER | PRIOR YEAR BUDGETS AND ACTUALS | | | | | 1993 BUDGET | 1994 IEEE FCRECAST | 1994 S/C BUDGET |
|-----------------|-------------------|--------------------------------|----|----|----|----|-------------|--------------------|-----------------|
| | | -5 | -4 | -3 | -2 | -1 | | | |
| PAID AND REPLAC | U 4653000000 A | | | | | | | | |
| TOTAL EXPENSES | U A | | | .4 | | | | | |
| TOTAL NET | U A | | | .4 | | | | | |

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REPORT PROCESSED 10/20/93 RUN 1 IEEE S/C BUDGET FOR THE PERIOD ENDING DECEMBER 31, 1994 PAGE 1 CODE 162

BUSINESS UNIT - 0110 NEURAL NETWORK COUNCIL
 COST CENTER - 01500 NEWSLETTERS

| DESCRIPTION | ACCOUNT NUMBER | PRIOR YEAR BUDGETS AND ACTUALS | | | | | 1993 BUDGET | 1994 IEEE FORECAST | 1994 S/C BUDGET |
|------------------|-------------------|--------------------------------|----|----|------|----|-------------|--------------------|-----------------|
| | | -5 | -4 | -3 | -2 | -1 | | | |
| ADVERTISING - IN | U 310200000 A | | | | | | 1.6 | | |
| TOTAL REVENUE | U A | | | | | | 1.6 | | |
| 1ST CLASS POSTAG | J 4200509201 A | | | | | | 2.9 | | |
| 2ND CLASS - EDIT | U 4201509201 A | | | | | | 2.8 | | |
| 2ND CLASS - EDIT | U 4202509201 A | | | | | | 6.4 | | |
| FREIGHT & OTHER | U 4205500000 A | | | | | | .7 | | |
| EDITOR FEE | B 4513000000 A | | | | 1.8 | | 7.5 | 10.4 | 15.1 |
| EDITORIAL REIMBU | U 4515000000 A | | | | .6 | | 3.4 | .5 | 1.4 |
| NEWSLETTERS | U 4521509 01 A | | | | 11.8 | | 42.6 | 23.2 | 23.2 |
| TEXT PAPER | B 4553009202 A | | | | | | 2.4 | | |
| PRESS WORK-PRINT | B 4581009202 A | | | | | | 5.1 | | |
| MAILING-PRT ED | B 4583009201 A | | | | | | 3.5 | | |
| LABEL PREPARATIO | B 4631009202 A | | | | | | 1.6 | | |

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IEEE S/C BUDGET
 FOR THE PERIOD ENDING DECEMBER 31, 1994

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BUSINESS UNIT - 0110 NEURAL NETWORK COUNCIL
 COST CENTER - 01500 NEWSLETTERS

| DESCRIPTION | ACCOUNT NUMBER | PRIOR YEAR BUDGETS AND ACTUALS | | | | | 1993 BUDGET | 1994 IEEE FORECAST | 1994 S/C BUDGET |
|----------------|----------------|--------------------------------|----|----|-------|------------------|-------------|--------------------|-----------------|
| | | -5 | -4 | -3 | -2 | -1 | | | |
| TOTAL EXPENSES | J A | | | | 14.2 | 42.6 36.3 | 34.1 | 35.7 | 35.7 |
| TOTAL NET | J A | | | | 14.2- | 42.6- 34.7- | 34.1- | 39.7- | 39.7- |

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REPORT PROCESSED 10/20/93 RUN 1 IEEE S/C BUDGET FOR THE PERIOD ENDING DECEMBER 31, 1994 PAGE 1 CODE 164

BUSINESS UNIT - 0110 NEURAL NETWORK COUNCIL
 COST CENTER - 01600 NON PERIODICAL

| DESCRIPTION | ACCOUNT NUMBER | PRIOR YEAR BUDGETS AND ACTUALS | | | | | 1993 BUDGET | 1994 IEEE FORECAST | 1994 S/C BUDGET |
|------------------|----------------|--------------------------------|----|-----|------|------|-------------|--------------------|-----------------|
| | | -5 | -4 | -3 | -2 | -1 | | | |
| SPECIAL Pubs | U 3408000000 | | | | | | 1.3 | 1.7 | 1.7 |
| | A | | | .3 | 1.3 | 1.2 | | | |
| TOTAL REVENUE | U | | | | | | 1.3 | 1.7 | 1.7 |
| | A | | | .3 | 1.3 | 1.2 | | | |
| COPYRIGHT FILING | U 4144000000 | | | | | | | | |
| | A | | | | | .1 | | | |
| CREDIT CARD CHAR | B 4153000000 | | | | | | .2 | .2 | .2 |
| | A | | | .1 | .2 | .2 | | | |
| PRESS WORK-PRINT | B 4581000000 | | | | | | 11.6 | 13.8 | 13.8 |
| | A | | | 7.2 | 11.6 | 11.7 | | | |
| TOTAL EXPENSES | U | | | | | | 11.8 | 14.0 | 14.0 |
| | A | | | 7.3 | 11.8 | 12.0 | | | |
| TOTAL NET | U | | | | | | 10.5 | 12.3 | 12.3 |
| | A | | | 7.0 | 10.5 | 10.8 | | | |

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| REPORT PROCESSED | | IEEE S/C BUDGET | | | | | PAGE 1 CODE 165 | | |
|---|----------------|---|-------|------|-------|-------|-----------------|--------------------|-----------------|
| 10/20/93 RUN 1 | | FOR THE PERIOD ENDING DECEMBER 31, 1994 | | | | | | | |
| BUSINESS UNIT - 0110 NEURAL NETWORK COUNCIL | | | | | | | | | |
| COST CENTER - 01700 MEETINGS/CONFERENCES | | | | | | | | | |
| DESCRIPTION | ACCOUNT NUMBER | -5 | -4 | -3 | -2 | -1 | 1993 BUDGET | 1994 IEEE FORECAST | 1994 S/C BUDGET |
| CONFERENCE INCOM | B 3401000000 | | | | 602.0 | 290.0 | 352.7 | 284.9 | 284.9 |
| | A | | 229.1 | 33.1 | 287.9 | 80.4 | | | |
| TOTAL REVENUE | d | | | | 602.0 | 290.0 | 352.7 | 284.9 | 284.9 |
| | A | | 229.1 | 33.1 | 287.9 | 80.4 | | | |
| CONFERENCE EXPEN | B 4J02000000 | | | | 560.0 | 130.0 | 210.0 | 241.4 | 241.4 |
| | A | | | 12.4 | 208.7 | 50.5 | | | |
| TOTAL EXPENSES | d | | | | 560.0 | 130.0 | 210.0 | 241.4 | 241.4 |
| | A | | | 12.4 | 208.7 | 50.5 | | | |
| TOTAL NET | B | | | | 42.0 | 160.0 | 142.7 | 43.5 | 43.5 |
| | A | | 229.1 | 45.5 | 79.2 | 29.9 | | | |

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IEEE S/C BUDGET
 FOR THE PERIOD ENDING DECEMBER 31, 1994

PAGE 1 CODE 166

BUSINESS UNIT - 0110 NEURAL NETWORK COUNCIL
 COST CENTER - 01800 ADMINISTRATION

| DESCRIPTION | ACCOUNT NUMBER | PRIOR YEAR BUDGETS AND ACTUALS | | | | | 1993 BUDGET | 1994 IEEE FORECAST | 1994 S/C BUDGET |
|-----------------|------------------|--------------------------------|----|-----|-----|------|-------------|--------------------|-----------------|
| | | -5 | -4 | -3 | -2 | -1 | | | |
| IS SYSTEM USAGE | U 416000000 A | | | | | | | | 11.1 |
| HQ ADMIN CHARGE | U 430400000 A | | | 4.3 | 8.5 | 12.1 | 8.5 | 12.4 | 18.0 |
| MIR RENEW/HANDL | B 463400000 A | | | | | | | | 9.0 |
| TOTAL EXPENSES | U A | | | 4.3 | 8.5 | 12.1 | 8.5 | 12.4 | 38.1 |
| TOTAL NET | D A | | | 4.3 | 8.5 | 12.1 | 8.5 | 12.4 | 38.1 |

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IEEE S/C BUDGET
 FOR THE PERIOD ENDING DECEMBER 31, 1994

PAGE 1 CODE 167

BUSINESS UNIT - 0110 NEURAL NETWORK COUNCIL
 COST CENTER - 01900 COMMITTEE & OTHER

| DESCRIPTION | ACCOUNT NUMBER | PRIOR YEAR BUDGETS AND ACTUALS | | | | | 1993 BUDGET | 1994 IEEE FCRECAST | 1994 S/C BUDGET |
|------------------|-------------------|--------------------------------|----|------|------|----------------|----------------|--------------------------|-----------------------|
| | | -5 | -4 | -3 | -2 | -1 | | | |
| INTER-SOCIETY TR | B 30900X001X A | | | 11.5 | 13.4 | 11.4 18.7 | 15.5 | 21.4 21.4 | |
| INTER-SOCIETY TR | B 30900X004X A | | | 9.1 | 10.7 | 12.6 13.7 | 12.3 | 15.6 15.6 | |
| INTER-SOCIETY TR | B 30900X012X A | | | 3.1 | 3.8 | 3.0 4.8 | 4.4 | 4.8 4.8 | |
| INTER-SOCIETY TR | B 30900X013X A | | | .7 | .7 | .9 .9 | .9 | 1.2 1.2 | |
| INTER-SOCIETY TR | B 30900X018X A | | | 4.5 | 5.4 | 5.6 6.0 | 6.4 | 7.1 7.1 | |
| INTER-SOCIETY TR | B 30900X019X A | | | 8.7 | 8.5 | 9.4 8.9 | 9.9 | 10.4 10.4 | |
| INTER-SOCIETY TR | B 30900X023X A | | | 6.4 | 8.2 | 7.6 11.2 | 9.5 | 12.8 12.8 | |
| INTER-SOCIETY TR | B 30900X024X A | | | 5.0 | 4.0 | 4.4 4.9 | 4.8 | 5.7 5.7 | |
| INTER-SOCIETY TR | B 30900X028X A | | | 3.6 | 6.5 | 5.8 8.0 | 7.5 | 9.4 9.4 | |
| INTER-SOCIETY TR | B 30900X034X A | | | | | .5 | | | |
| INTER-SOCIETY TR | B 30900X036X A | | | 1.8 | 1.6 | 2.1 1.6 | 1.9 | 1.8 1.8 | |
| INT SOC TRF | B 3090000000 A | | | 40.0 | 53.2 | | | | |
| MISCELLANEOUS RL | B 3869900000 A | | | .3 | | 1.1 | | 1.1 1.1 | |

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IEEE S/C BUDGET
 FOR THE PERIOD ENDING DECEMBER 31, 1994

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BUSINESS UNIT - 0110 NEURAL NETWORK COUNCIL
 COST CENTER - 01900 COMMITTEE & OTHER

| DESCRIPTION | ACCOUNT NUMBER | PRIOR YEAR BUDGETS AND ACTUALS | | | | 1993 | 1994 | 1994 |
|------------------|-------------------|--------------------------------|-----|--------------|--------------|--------------|---------------|--------------|
| | | -5 | -4 | -3 | -2 | BUDGET | IEEE FORECAST | S/C BUDGET |
| TOTAL REVENUE | B A | | .3 | 40.0 54.4 | 53.2 62.8 | 62.8 80.3 | 73.1 | 91.3 91.3 |
| PRESIDENTS OFFIC | B 4081500000 A | | | 11.7 | 30.0 | 10.0 20.5 | 15.0 | 19.4 19.4 |
| EXEC OFFICL SF | B 4081500000 A | | | | 1.3 | | | |
| ADCOM COMMITTEE | B 4082100000 A | | 4.1 | 13.7 | 15.0 27.2 | 25.0 26.8 | 25.0 | 35.8 35.8 |
| ADCOM SF | B 4082100000 A | | | | .5 | | | |
| ADCOM HQ EXPENSE | B 4082200000 A | | .2 | .7 | .2 1.5 | .3 .7 | .9 | 1.2 1.2 |
| TECHNICAL COMMIT | B 4084100000 A | | 4.8 | | 15.0 2.3 | 15.0 7.0 | 13.7 | 12.5 12.5 |
| EXECUTIVE COMMIT | B 4086100000 A | | | | .8 | 4.5 | 5.0 | 7.6 7.6 |
| AWARDS HQ EXPENS | B 4087200000 A | | | | 5.2 | 7.7 | 6.0 | 7.1 7.1 |
| STANDARDS COOR. | B 4087600000 A | | | | | 6.0 | 12.0 | 12.0 12.0 |
| EDUCATION | B 4089100000 A | | | | 10.7 | | | |
| OTHER COMMITTEE | B 4089800000 A | | | | | 1.0 | | |
| LEGAL | B 4185000000 A | | | | | 2.1 | | |

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IEEE S/C BUDGET
 FOR THE PERIOD ENDING DECEMBER 31, 1994

PAGE 3 CODE 169

BUSINESS UNIT - 0110 NEURAL NETWORK COUNCIL
 COST CLNTER - 01900 COMMITTEE & OTHER

| DESCRIPTION | ACCOUNT NUMBER | PRIOR YEAR BUDGETS AND ACTUALS | | | | | 1993 BUDGET | 1994 IEEE FORECAST | 1994 S/C BUDGET | |
|------------------|-------------------|--------------------------------|------|------|--------------|---------------|-------------|--------------------|-----------------|-------|
| | | -5 | -4 | -3 | -2 | -1 | | | | |
| INT SOC TRF | B 44000X001X A | | | 2.0 | | | | | | |
| INT SOC TRF | B 44000X004X A | | | 2.0 | | | | | | |
| INT SOC TRF | B 44000X012X A | | | 2.0 | | | | | | |
| INT SOC TRF | B 44000X013X A | | | 2.0 | | | | | | |
| INT SOC TRF | B 44000X018X A | | | 2.0 | | | | | | |
| INT SOC TRF | B 44000X019X A | | | 2.0 | | | | | | |
| INT SOC TRF | B 44000X023X A | | | 2.0 | | | | | | |
| INT SOC TRF | B 44000X024X A | | | 2.0 | | | | | | |
| INT SOC TRF | B 44000X028X A | | | 2.0 | | | | | | |
| INT SOC TRF-LL0 | B 44000X036X A | | | 2.0 | | | | | | |
| CD ROM | B 4605000000 A | | | | | 29.1 | | | | |
| UNIDENTIFIED & H | B 4999000000 A | | 2.6 | 5.6 | 5.0 1.0 | 5.0 18.4 | | 5.0 | 11.4 | 11.4 |
| TOTAL EXPENSES | B A | | 11.7 | 51.7 | 35.2 78.5 | 61.3 117.8 | | 82.6 | 107.0 | 107.0 |

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REPORT PROCESSED
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IEEE S/C BUDGET
 FOR THE PERIOD ENDING DECEMBER 31, 1994
 NEURAL NETWORK COUNCIL

PAGE 21

| DESCRIPTION | | PRIOR YEAR BUDGETS AND ACTUALS | | | | | 1993 BUDGET | 1994 IEEE FORECAST | 1994 S/C FORECAST |
|----------------------------------|---|--------------------------------|-------|-------|-------|-------|----------------|--------------------------|-------------------------|
| | | -5 | -4 | -3 | -2 | -1 | | | |
| 00100 INTEREST INCOME | B | | | | | | 13.5 | 11.0 | 16.7 |
| | A | | | 14.4 | 11.3 | 4.3 | | | |
| 00400 TRANS ON NEURAL NETWORKS | B | | | 35.2 | 140.5 | 60.3 | 126.0 | 164.8 | 164.7 |
| | A | | .1 | 77.1 | 106.6 | 147.1 | | | |
| 00401 TRANS ON FUZZY SYS | B | | | | | | 65.1 | 65.8 | 65.1 |
| | A | | | | | | | | |
| 01500 NEWSLETTERS | B | | | | | | | | |
| | A | | | | | 1.6 | | | |
| 01600 NON PERIODICAL | B | | | | | | 1.3 | 1.7 | 1.7 |
| | A | | | .3 | 1.3 | 1.2 | | | |
| 01700 MEETINGS/CONFERENCES | B | | | | 602.0 | 290.0 | 352.7 | 284.9 | 284.9 |
| | A | | 229.1 | 33.1 | 287.9 | 80.4 | | | |
| 01900 COMMITTEE & OTHER | B | | | 40.0 | 53.2 | 62.8 | 73.1 | 91.3 | 91.3 |
| | A | | .3 | 54.4 | 62.8 | 80.3 | | | |
| TOTAL INCOME | B | | | 75.2 | 795.7 | 413.1 | 631.7 | 619.5 | 624.4 |
| | A | | 229.5 | 179.3 | 469.9 | 314.9 | | | |
| 00400 TRANS ON NEURAL NETWORKS | B | | | 129.0 | 123.8 | 232.3 | 269.4 | 311.9 | 311.9 |
| | A | | .3 | 87.3 | 157.9 | 293.3 | | | |
| 00401 TRANS ON FUZZY SYS | B | | | | | | 79.0 | 74.7 | 74.7 |
| | A | | | | | | | | |
| 01499 PERIODICAL RELATED - OTHER | B | | | | | | | | |
| | A | | | .4 | | | | | |
| 01500 NEWSLETTERS | B | | | | | 42.6 | 34.1 | 39.7 | 39.7 |
| | A | | | | 14.2 | 36.3 | | | |
| 01600 NON PERIODICAL | B | | | | | | 11.8 | 14.0 | 14.0 |
| | A | | | 7.3 | 11.8 | 12.0 | | | |
| 01700 MEETINGS/CONFERENCES | B | | | | 560.0 | 130.0 | 210.0 | 241.4 | 241.4 |
| | A | | | 12.4 | 208.7 | 50.5 | | | |
| 01800 ADMINISTRATION | B | | | | | | 8.5 | 12.4 | 38.1 |
| | A | | | 4.3 | 8.5 | 12.1 | | | |
| 01900 COMMITTEE & OTHER | B | | | | 35.2 | 61.3 | 82.6 | 107.0 | 107.0 |
| | A | | 11.7 | 51.7 | 78.5 | 117.8 | | | |
| TOTAL EXPENSES | B | | | 129.0 | 719.0 | 466.2 | 695.4 | 801.1 | 826.8 |

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IEEE S/C BUDGET
 FOR THE PERIOD ENDING DECEMBER 31, 1994
 NEURAL NETWORK COUNCIL

PAGE 22

| DESCRIPTION | PRIOR YEAR BUDGETS AND ACTUALS | | | | | 1993 BUDGET | 1994 IEEE FORECAST | 1994 S/C FORECAST |
|---------------|--------------------------------|-------|-------|-------|-------|----------------|--------------------------|-------------------------|
| | -5 | -4 | -3 | -2 | -1 | | | |
| | A | 12.0 | 138.6 | 479.6 | 522.0 | | | |
| TOTAL OVERALL | B | | 53.8 | 76.7 | 53.1 | 63.7 | 181.6 | 202.4 |
| | A | 217.5 | 40.7 | 9.7 | 207.1 | | | |

Tab #4
NNC Item IV.E.1
January 1993

TAB Finance Committee's Concerns

**IEEE TECHNICAL ACTIVITIES**

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

445 HOES LANE, P. O. BOX 1331, PISCATAWAY, NJ 08855-1331, U.S.A. (908) 562-3900 TELEX 833-233 FAX (908) 562-1571

(908) 562-

October 29, 1993

Dr. Russell C. Eberhart
Research Triangle Institute
P.O. Box 12194
Research Triangle Park, NC 27709

Dear Russ:

At its October 22, 1993, meeting, the TAB Finance Committee reviewed the proposed 1994 Society/Council budgets. Due to the continuing precarious financial position of the Neural Networks Council, the Committee voted to not approve your Council's 1994 budget at that time.

In order to take every possible step for its budget approval, I am inviting you to meet with the TAB Finance Committee in a special meeting in Raleigh during the evening of Thursday, November 18, at 8:30 p.m. This invitation will also be extended to the Presidents of the Societies that sponsor the Council.

One discussion item for the November 18 meeting is the risk of the Neural Networks Council sponsored conferences and the extremely large advances requested (which do not show up in the conference budgets) for these conferences which may exceed the Neural Networks Council reserves. We will also address the lack of detail in the four budgets for the Neural Networks Council sponsored conferences which take place simultaneously in 1994. Please review these conference budgets, add the missing details, determine whether some expenses can be deferred or eliminated, and in general, reduce the risk of a deficit.

Please let Tania Skrinnikov know who will join us for this special meeting (908-562-3860). The Committee wants to do everything possible to preserve the financial viability of your Council. Please keep in mind that your budget needs both TAB and IEEE Board of Directors approval on the 20th and 21st of November. We look forward to this face-to-face dialogue.

By copy of this letter, Presidents of the sponsoring societies are invited to attend the meeting.

Yours truly,

Robert A. Begun

Robert Begun
TAB Treasurer
Chairman, TAB Finance Committee

| | |
|---------------|------------|
| cc: D. Munson | C. Herget |
| P. Lopresti | T. Tarn ✓ |
| S. Schwartz | C. White |
| H. Wo | C. Nielsen |
| J. Aylor | J. Pope |
| G. Harris | B. Bridger |
| P. Green | S. Nagel ✓ |
| G. Williams | |

3340
no stamp

Tab #4
NNC Item IV.E.2
January 1993

Member Society Presidents' Concerns



CIRCUITS AND SYSTEMS SOCIETY

Philip V. Lopresti
President

PLEASE REPLY TO:

AT&T Bell Laboratories
P. O. Box 900
Princeton, NJ 08542-0900
(609) 639-2406
(609) 639-3197 FAX
pvl@ohm.att.com

MEMORANDUM

Date: December 6, 1993
To: Presidents of the IEEE Neural Networks Council Sponsor Societies
From: Phil Lopresti *PL*
Subject: Financial Position of the IEEE Neural Networks Council

SUMMARY

At a November 19 meeting attended by presidents from ten of its fifteen sponsor societies, three people were chosen to serve on a Sponsors' Budget Oversight Committee of the Neural Networks Council. This committee is to report to the Neural Networks Council Sponsor Society Presidents by December 15, 1993, with revised 1994 council budget recommendations. A meeting of the Neural Networks Council AdCom is planned for late January, 1994.

BACKGROUND

On October 29, Robert Begun, Chairman of the TAB Finance Committee wrote to Dr. Russell Eberhart, 1993 President of the IEEE Neural Networks Council. The letter stated:

"At its October 22, 1993, meeting the TAB Finance Committee reviewed the proposed 1994 Society/Council Budgets. Due to the continuing precarious financial position of the Neural Networks Council, the Committee voted to not approve your Council's 1994 budget at this is time. In order to take every possible step for its budget approval, I am inviting you to meet with the TAB Finance Committee in a special meeting in Raleigh during the evening of Thursday, November 18, at 8:30 p. m. This invitation will also be extended to the Presidents of the Societies that sponsor the Council."

At this meeting, Patrick Simpson, the 1994 President of the Neural Networks Council explained the status of the council finances. His explanation put in focus the large financial risk the Neural Networks Council will be taking with its sponsorship of the 1994 International World Congress. If this conference loses money, the sponsor societies may have to help make up the deficit, since the council financial reserves are insufficient to absorb a significant conference deficit.

A meeting of the sponsor society presidents was held the next evening, 8 p. m., Friday, November 18, to determine our response to this condition.

MINUTES OF FRIDAY EVENING MEETING

The meeting on Friday evening, November 19, included presidents of ten of the fifteen societies that sponsor the Neural Networks Council, five visitors, and Russell Eberhart and Patrick Simpson, 1993 and 1994 presidents, respectively, of the Neural Networks Council. The minutes of this meeting were taken by Herbert Rauch.

Three people were chosen to serve on a Budget Oversight Committee for the Neural Networks Council:

Randall Geiger, Past President, Circuits and Systems Society,
Richard Klafter, 1994 President, Robotics and Automation Society,
Charles Herget, 1993 President, Control Systems Society.

The first charge to the committee was to rework the budget of the Neural Networks Council-sponsored 1994 International World Congress to enable it to break even with a paid attendance of 1200. These revised budget recommendations should be available to the sponsor society presidents by December 15.

A second committee charge is to help the Neural Networks Council trim expenses on its 1994 and 1995 budgets.

The above committee actions were supported unanimously by the ten society presidents in attendance. Patrick Simpson agreed to supply necessary information to the committee and to help with the revised budgets as much as possible.

The next meeting of the Neural Networks AdCom is planned for late January, 1994.

cc: R. Eberhart, P. Simpson, R. Nutter, C. Robinson,
H. Rauch,
Budget Oversight Committee

To the Sponsoring Society Presidents:

This communication is to clarify a few points in a recent memorandum sent to the Sponsoring Society Presidents apprising them of the financial position of the IEEE Neural Networks Council (NNC). There are two clarifications to the memo that need to be made:

- (1) An existing budget oversight committee was expanded to include three additional members (a new oversight committee was not formed) on November 19, 1993, and
- (2) the scope of this budget oversight committee is strictly limited to the 1994 IEEE World Congress on Computational Intelligence (WCCI).

The following will describe each of these clarifications in more detail and provide a brief status report on the actions taken by this existing oversight committee.

An Existing Oversight Committee Was Expanded

=====

A Budget Oversight Committee was not formed on November 19, 1993. For such a committee to be formed would require either a motion by TAB (which was presented in the President's Forum but not passed) or a motion by the NNC AdCom. Neither of these actions took place.

What we did at the meeting was add three members to an existing financial oversight committee that had been formed in March 1993 by the NNC AdCom to monitor the 1994 World Congress on Computational Intelligence (WCCI). Because the concerns expressed at the meeting focused on this meeting and because this committee existed, adding members to this committee was agreed to be the most sensible solution. As I had described in an earlier e-mail message to this committee to this committee, the members are:

Patrick K. Simpson, Chair
Toshio Fukuda
James Bezdek
Roy Nutter

and at the meeting on November 19, 1993 we added

Charles Herget
Randall Geiger
Richard Klafter

It is important to recognize that these seven individuals comprise the committee and that the three gentlemen you mentioned in your memo were added to an existing WCCI budget oversight committee. Please amend the minutes accordingly.

The Scope of the Oversight Committee is Limited to WCCI

=====

The discussion of the second charge of the committee should be struck from the minutes. At the meeting, I presented the current status of the NNC through 1993 that showed a modest surplus for the year. In addition, I showed that in 1994, assuming that the WCCI conference did not lose money, that surplus would grow. Since the meeting, I have continued to work on our financial situation and will present at the NNC AdCom in Late January a path from where we are now to holding a cash reserve equal to one year's expenses by the end of the 1998. This financial plan will reduce the NNC's reliance on conference income and emphasize the Transactions as the funding source.

The focus of the meeting on the evening of November 19, 1993 was the financial risk assumed by each Sponsoring Society relative to WCCI. This is what motivated the additional members to the WCCI Budget Oversight Committee. The minutes described the charter of a three man committee to oversee the NNC budgets for 1994 and 1995. This was not the intent of the committee additions. Moreover, as mentioned above, it is not within the scope of the committee that was formed at the 1993 NNC AdCom.

Current Status of the WCCI Budget Oversight Committee

=====

While I have the opportunity, as chair of the WCCI Budget Oversight Committee I would like to provide a brief status report on the actions taken to date.

1. Geiger has requested some information to help him to examine the WCCI budget.
2. Klafter has submitted a comprehensive set of questions relative to his examination of the budget.
3. Simpson has collected statistical information on past NNC sponsored meetings.

It was the intent of the WCCI Budget Oversight Committee to produce a report of our analysis of the WCCI Budget to the Sponsoring Society Presidents no later than December 15, 1993. This analysis was to focus on a breakeven budget at 1200 attendees. I hereby request the members of the WCCI Budget Oversight Committee to submit this information to me by e-mail (the agreed means of communication) no later than midnight Dec. 14, 1993 PST so that I can collect the results and transmit this information to the Sponsoring Society Presidents.

Unfortunately, one of the most important factor in the budget analysis is the number papers submitted. Currently, the NNC averages 1.5 attendees per paper

accepted and we average \$275.00 per attendee in expenses. To truly determine how to adjust the WCCI budget requires knowing the number of submitted papers. The paper submission deadline is Dec. 31, 1993. My recommendation would be to submit our analysis of the budget on Dec. 15 1993 and then make strong budget recommendations relative to the number of submitted papers when that number is known during the first week of January 1994.

Thanks For Your Continued Support

=====

I appreciate all of the effort that the Presidents of the Sponsoring Societies have pledged during the recent TAB meetings. Throughout the meetings it was clear that the Sponsoring Societies wanted to do all they could to help us correct our financial mistakes and get the NNC moving in the right fiscal direction. I look forward to more continued support over the next year of my Presidency. As always, if you have any questions or comments, please do not hesitate to contact me.

Sincerely,

Patrick K. Simpson
1994 IEEE NNC President

Tab #4
NNC Item IV.E.3
January 1993

Constitution and Bylaws Approval



IEEE

TECHNICAL ACTIVITIES

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

445 HOES LANE, P.O. BOX 1331, PISCATAWAY, NJ 08855-1331, U.S.A. TELEX 833-233 FAX (908) 562-1571

Robert T. Wangemann
Staff Director

December 15, 1993 Tel: (908) 562-3850
email: b.wangemann@ieee.org

Dr. Russell C. Eberhart
Research Triangle Institute
PO Box 12194
Research Triangle Park, NC 27709

Dear Dr. Eberhart:

The revisions to the Neural Networks Council Constitution and Bylaws submitted for approval on October 15 have been reviewed and found to be in good order.

These include: creating the positions of Past President, Executive Vice President, and Vice Presidents for Conferences, Publications and Finance; revising the succession to President in the event of a vacancy or incapacity; defining the succession to the Past President and Vice President positions in the event of a vacancy; changing the Secretary to an appointive position; defining the duties of the officers; specifying the ex officio AdCom members without vote; defining eligibility for election, reelection and terms of office for the officers; establishing new Standing Committees and defining their purpose and composition.

Because the revisions to the Constitution are of an administrative or editorial nature, they have been approved by Dr. Donald M. Bolle in accordance with the authority delegated to him as TAB Chairman by the IEEE Executive Committee and the Technical Activities Board. As specified in the NNC Constitution Article XI, they take effect following their approval by the Technical Activities Board, granted herein.

The Bylaws require no further formal approval. They become effective 20 days following approval by the NNC AdCom and submission to the Technical Activities Board.

We do suggest however, that the Bylaws be further modified to include the purpose of the Fellows, Standards, and Education Standing Committees, as has already been done for the other Standing Committees. When these additional revisions are approved, please forward a new copy of the Bylaws for our records.

Sincerely,

A handwritten signature in black ink, appearing to read 'Robert T. Wangemann', with a long horizontal line extending to the right.

Robert T. Wangemann
Staff Director

cc: P. Simpson
C.J. Robinson
D.M. Bolle
M. Tickman
R. Loyal



IEEE

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

DIVISION X: SYSTEMS AND CONTROL

Charles J. Robinson, D.Sc., P.E.
DIRECTOR

PLEASE REPLY TO:
117D Pennsylvania Hall
University of Pittsburgh
Pittsburgh, PA 15261 USA
Tel: (412) 624-8940
Fax: (412) 624-8504
E-mail: c.robinson@ieee.org

DATE: December 9, 1993

TO: Russell Eberhart, IEEE NNC President
Patrick Simpson, IEEE NNC President-elect
Robert T. Wangemann, Secretary, IEEE TAB

FROM: Charles J. Robinson

SUBJ: Constitution and Bylaws for the IEEE Council on Neural Networks

Enclosed is the final approved version of the Constitution and Bylaws for the IEEE Council on Neural Networks, both in typed form and ASCII on disk.

The changes were proposed March 18, 1993 and ratified in the NNC AdCom on September 18, 1993. They were approved by the IEEE Vice President for Technical Activities at the November 1993 TAB Meeting, who has been delegated by TAB to approve such changes. This new Constitution goes into effect 20 days after receipt by the TAB Secretary, and this will be in effect beginning in January 1994.

I have also enclosed the working copy with deletions and additions noted. Please keep this for reference only.

Sincerely,

Charles J. Robinson, D.Sc., P.E.

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

CONSTITUTION AND BYLAWS
FOR THE IEEE COUNCIL ON NEURAL NETWORKS

Contains Amendments through December 31, 1993

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CONSTITUTION FOR THE IEEE COUNCIL ON NEURAL NETWORKS

ARTICLE I

NAME AND PURPOSE

Section 1. The name of the organization constituted herein shall be the IEEE Council on Neural Networks.

Section 2. The purpose of the Council is to advance and coordinate work in the field of Neural Networks carried out throughout the IEEE and as such is exclusively scientific, literary and educational in character. In furtherance of the foregoing, the Council may publish appropriate periodicals, sponsor IEEE Neural Networks related conferences and conference sessions, sponsor IEEE Press publications, and engage in any other activity within its field of interest. All such actions must be in consonance with the Constitution, Bylaws, and Statements of Policy of the IEEE, with special attention to such aims within the field of interest of the Council as are hereinafter defined.

ARTICLE II

FIELD OF INTEREST*

Section 1. The field of interest of the Council and its activities and programs shall be the theory, design, application and development of biologically and linguistically motivated computational paradigms emphasizing neural networks, including connectionist systems, genetic algorithms, evolutionary programming, fuzzy systems, and hybrid intelligent systems in which these paradigms are contained. Changes to the field of interest may be made with the approval of the IEEE Technical Activities Board. (AMENDED 6/91, approved by TAB 10/91)

ARTICLE III

MEMBERSHIP OF THE COUNCIL

Section 1. The Council shall be composed of IEEE Societies which have demonstrated a strong interest in Neural Networks and are supporting technical activities in the field. These Societies must agree to share the responsibility for all obligations of the Council, including those financial, in accordance with this Constitution and the Council Bylaws.

Section 2. Each new Member Society must be approved by a two-thirds affirmative vote of the voting members of the Council AdCom, and by the IEEE Technical Activities Board before it may join the Council.

Section 3. If a Member Society does not have any representative present at any of the Council AdCom meetings held during a calendar year and is inactive in Council affairs, the Member Society may be dropped from Council membership. Notice of such proposed action shall be given to the President of the delinquent Society at least twenty days before the Council AdCom meeting where such action will be considered. Such action must be approved by two-thirds of the AdCom members present and voting and by the IEEE Technical Activities Board before it becomes final.

Section 4. The officers of the Council shall be as follows: President, the immediate Past-President, the Executive Vice President, the Vice-President for Conferences, the Vice-President for Publications, and the Vice President for Finance, all serving as the Council's Executive Committee, and all serving as ex officio, voting members of its AdCom (Administrative Committee).

Section 5. Council business will be conducted by its AdCom which will include both voting and non-voting members. The voting members will be:

- a. Two representatives to be appointed by each Member Society.
- b. The Officers of the Society.

An individual may not serve concurrently as both a Council officer and a Council Member Society representative. When a Member Society representative is elected to a Council office, the Council office shall take precedence over the Society appointment, and any resulting vacancy(s) shall be filled promptly by the appropriate Society.

Section 6. Each representative and officer on the Council must be an IEEE member.

Section 7. The term of office of a Member Society representative on the Council shall be two years with each of the two Society representatives appointed by the Society in alternate years. No Society representative shall be eligible to serve more than four consecutive years. An unexpired term filled for more than six months shall count as a full year. Reappointment after the completion of any term of four consecutive years may be made only after a lapse of at least one year.

Section 8. When a within-term Council representative vacancy occurs, the Council President shall request the appropriate Society to appoint a representative to complete the unexpired term.

Section 9. The non-voting ex-officio members of the Council AdCom will be:

- a. The Director of the Division in which the Council resides.
- b. The TAB Staff Secretary.
- c. The General Manager of IEEE.
- d. The IEEE Vice-President for Technical Activities.

Section 10. Any other IEEE Society which is not a member of the Council may send a non-voting liaison representative to attend for the purpose of establishing lines of communication between the Council and the parent Society represented.

ARTICLE IV

ELECTION AND APPOINTMENT OF OFFICERS

Section 1. Every year, the voting members of the Council AdCom shall elect a President. On a schedule specified by the Bylaws, they shall also elect an Executive Vice President, a Vice-President for Conferences, a Vice-President for Publications, and a Vice President for Finances. Eligibility and terms of office for the Officers of the Council are specified by the Bylaws.

Section 2. Officers shall be elected and appointed in accordance with the rules specified in the Council Bylaws.

Section 3. If the Office of President becomes vacant, the Executive Vice-President shall become President for the remainder of the term assumed. If the President is incapacitated, the duties of the President shall be performed by the Executive Vice-President for the duration of the President's incapacity, when the incapacity is certified by a majority of the Executive Committee. In the absence of the President, and under written and time-limited delegation from the President, the Executive Vice-President may also carry out the duties of the President. If the office of the Executive Vice-President, or a Vice-President becomes vacant, the voting members of the Council AdCom shall elect a new officer promptly. If the office of Immediate Past President becomes vacant, the President may appoint another Past President to that office.

ARTICLE V

POWERS, PRIVILEGES, AND DUTIES

- Section 1. It shall be the duty of each representative of a Member Society to participate in matters before the Council AdCom and to keep the Administrative Committee of the Society represented informed concerning Council business. Members of any Member Society AdCom may attend any open meeting of the Council as observers.
- Section 2. The duties and responsibilities of the officers and members of the Council AdCom shall be as defined hereunder and in the Bylaws, and as further delineated by the Council.
- Section 3. The President shall appoint for a term concurrent with his presidency, a Secretary to the AdCom, and the Chairpersons of the standing committees of the Council that are not chaired by an Officer, as specified in the bylaws on or before January of the year in which he takes office as President. The President shall appoint the Editors of the various Council periodicals, to terms as specified in the bylaws. All appointments shall be made with the advice of the Nominations and Appointments Committee and consent of the Council AdCom. The Secretary, Editors and Chairperson appointments need not be made from among the individuals who are on the Council AdCom as Society representatives.
- Section 4. The Council President, under the direction of Council AdCom, shall call all regular, annual, and special Council AdCom meetings and shall preside over them. The President shall coordinate and supervise activities of the Council and have such other powers and perform such other duties as may be provided for in the Council Constitution or Bylaws or as may be delegated to the President by vote of the Council AdCom. Included in the President's duties shall be the responsibility to see that the orders and resolutions of the Council, the IEEE Technical Activities Board, the IEEE Executive Committee, and the IEEE Board of Directors are carried out. The President shall be an ex-officio member of all standing and special committees of the Council except the Nominating Committee. The President can vote during the election of officers. The President shall also be an ex-officio member of the IEEE Technical Activities Board, and, when notified of a meeting of said Board, shall ensure representation of the Council.
- Section 5. Standing committees may be established as needed. The Bylaws may assign specific Officers to be the Chairs of specific standing committees.

Individuals appointed as committee officers or members shall serve a nominal term of one year but shall continue to serve until their successors are appointed or the committee is dissolved, except where other terms are specifically designated by the Constitution or Bylaws.

The President may appoint ad hoc committees for special assignments as needed.

- Section 6. The duties of the Officers other than the President and Vice President for Finances shall be as follows:
- a. The Executive Vice-President shall assist the President in fulfilling all assigned duties, and shall oversee and be an ex-officio member of all the Committees of the Council except those chaired by other Officers.
 - b. The Vice-President for Conferences, with the participation of the Meetings Committee, shall provide direction for the conference activities of the Council, including but not limited to overseeing, coordinating, and monitoring the annual conferences of the Council and all conferences CO-sponsored by the Council.
 - c. The Vice-President for Publications shall provide direction for the publications activities of the Council. This officer shall consider, with the participation of the Publications Committee, the publication needs of the Council and shall propose to AdCom the creation, cancellation, expansion, or contraction of Council publications. This officer shall be informed by the editor of each Council-sponsored publication, policy matters such as the designation and development of special issues, recommendation for a change in the number of published pages, and the appointment of Associate Editors.
 - d. The Immediate Past-President shall provide direction for the liaison activities of the Council, including transnational and inter-society activities.

Section 7. The Secretary shall be responsible for all reports, petitions and records concerning the Council, keeping true and faithful minutes of all meetings of the Council AdCom, and shall prepare such reports as may be required by the Council, the IEEE Technical Activities Board, or the IEEE Executive Committee. The Secretary shall send out notices when instructed to do so by the President or in accordance with requirements of the Council Constitution or Bylaws. Copies of all meeting notices, minutes of meetings, and letter or bulletins sent and received during the previous two years shall be kept by the Secretary, except for those specifically assigned to the custody of others, and the Secretary shall send current copies to IEEE Headquarters for archival storage.

Section 8. The Vice President for Finances shall propose a budget for Council operation to be endorsed by Council AdCom and approved by TAB and shall monitor expenditures to verify that they are in accordance with the approved budget. The Vice President for Finances shall prepare financial reports as requested by the Council President, and shall keep the Treasurers of the Member Societies informed on Council financial matters affecting their budgets. The Vice President for Finances shall approve the Conference budgets after they are approved by the Meetings Committee prior to being forwarded to IEEE Headquarters for review and final approval.

The Vice President for Finances may utilize the services of IEEE headquarters as bursar for all or part of the Council funds, as provided by the IEEE Bylaws and Statements of Policy. If any parts of the Council funds is received and deposited separately, the terms and conditions shall be in accordance with IEEE policies and subject to Council Bylaws and any other limitations imposed by the Council. Disbursements shall be made on the signature or instructions of the Vice President for Finances. If the Vice President for Finances is disabled or unable to serve, the President may make disbursements during his incapacity.

Section 9. The President, elected and appointed officers shall normally assume office on January 1st or as soon thereafter as practicable.

Section 10. The officially constituted officers of the Council shall have the sole authority to obligate the funds and assets of the Council to promote the Council's activities, provided that no Council officer or representative shall have authority to contract debts for, pledge the credit of, or in any way bind the IEEE for activities prohibited by the Bylaws of the IEEE or the Constitution and Bylaws of the Council.

Section 11. No officer of the Council, representative on Council AdCom, or Editor shall receive, directly or indirectly, any honorarium, traveling expenses, compensation, or emolument from the Council as an officer or in any other capacity unless authorized by Council AdCom or by the Bylaws of the Council in a manner in conformity with IEEE policies and procedures.

ARTICLE VI

FINANCIAL SUPPORT & EXPENDITURES

Section 1. The financial support for the Council shall be derived from subscription sales of Council Publications, any surplus from the Conferences organized or sponsored by the Council, other programs and products sponsored by the Council, and allocations of funds provided by the Member Societies.

Section 2. The Council may raise revenues by other means provided such means are consistent with applicable IEEE rules and regulations and are within the approved Council field of interest. The Council must receive an opinion from the General Manager of the IEEE that any revenue means not explicitly covered by IEEE Statements of Policy does not conflict with IEEE policy before being adopted by the Council.

Section 3. Monies held by or for the Council legally belong to the IEEE, and shall not be expended for activities prohibited by the Constitution, Bylaws and Statements of Policy of the Institute, the Constitution and Bylaws of the Council, or any other purposes known to be inimical to the interests of the IEEE. Returns from investment of Council funds shall be credited to the Council.

ARTICLE VII

COUNCIL MEETINGS

Section 1. The Council shall hold an Annual Meeting. Additional meetings of the Council, represented by its AdCom, may be held at such times as are found necessary or convenient. Meetings of the Council AdCom may be called at the discretion of the Council President or upon request by AdCom members from at least four different Societies. The time, place and agenda shall be announced to all members of the Council AdCom at least twenty days in advance of the meeting, or by first-class mail to the address of record of each Council AdCom Member at least twenty-five days in advance of the meeting.

Section 2. The Annual meeting of the Council shall normally be the last AdCom meeting of the year held at a time and place designated by the President.

Section 3. One-third of the voting members of the Council AdCom, which must include representatives from at least one-third of the Member Societies, shall constitute a quorum. Written proxies will not be accepted in determining the quorum. The Secretary, the Editors of the Council's periodicals, and the Chairpersons of the Standing Committees shall be ex-officio members of the AdCom without vote, unless the Secretary, Editor or Chair has the right to vote as a Society representative or Council Officer.

- Section 4. If a regular representative from a Member Society is unable to attend a meeting of the Council AdCom, the President of the Member Society may designate an alternate by a letter of proxy, who shall have all the powers of the regular representative. Officers of the Council may not delegate their powers by proxy.
- Section 5. Business of the Council may be transacted by correspondence, or other telecommunication means where in the opinion of the President matters requiring action can be adequately handled in that manner. All voting members of the Council should be informed on such interim actions, and a majority of the entire Council must be reached for ratification of the actions, if balloting is necessary, unless otherwise provided by the Constitution or Bylaws.
- Section 6. If less than a quorum is in attendance at duly called meetings, tentative actions may be taken that will become effective upon subsequent ratification, either at a subsequent meeting or by mail, as specified in Section 5 above.

ARTICLE VIII

PUBLICATIONS

- Section 1. All Council publication activities shall be subject to IEEE policies, and to any further guidance or controls prescribed by the Council AdCom or its duly appointed committees.
- Section 2. The Council may publish appropriate Periodicals in accordance with IEEE Policies and Procedures. Selection of the published material shall be in accordance with the objectives and policies of IEEE and the Council.
- Section 3. The Editors of the Council's periodicals shall appoint associate and/or guest editors as may be required to implement the publications program.

ARTICLE IX

CONFERENCES AND TECHNICAL MEETINGS

- Section 1. All Council conferences and technical meeting activities shall be subject to IEEE policies, and to any further guidance or controls prescribed by the Council or its duly-appointed committees.
- Section 2. The Council shall determine the time and location of each sponsored Conference and technical meeting. Furthermore, the Council shall not be bound by any agreements, within or without IEEE, made prior to ratification of this Constitution.

ARTICLE X

RECALL

- Section 1. If at any time during the year and for any reason the best interests of the Council seem to require a change in Member Society representatives or officers, the matter shall be discussed at a regular or a special meeting of the Council AdCom called for the purpose of considering and voting upon the recommended change. At least twenty days before the Council AdCom meeting, notice of such proposed action shall be given to all appropriately interested individuals, including the President and Secretary of each Member Society involved and the Chairman and Secretary of the IEEE Technical Activities Board.

Section 2. An affirmative vote of two-thirds of the voting members of the Council AdCom shall be necessary to declare a vacancy for cause.

For the purposes of this Section, an abstention shall be counted as a cast negative vote.

ARTICLE XI

AMENDMENTS

Section 1. Sections of this Constitution may be adopted or amended by action of the Council at a regular or special meeting if the following provisions are met:

- a. Notice of the meeting and of the proposed change(s) must be mailed by first-class mail to the last-known address of each member of the Council AdCom at least twenty-five days prior to such meeting.
- b. A two-thirds affirmative vote of the votes cast by the members of the Council AdCom is required for passage.
- c. An amendment may be approved by a mail ballot if at least a thirty-day period is provided for responses, and two-thirds of the entire Council AdCom votes affirmatively.
- d. The Amendment shall become effective immediately after ratification by the IEEE Technical Activities Board.

Section 2. Bylaws to this Constitution may be adopted or amended by a two-thirds affirmative vote of the votes cast by the Council AdCom at a regular or special meeting, provided that notice of the meeting and a copy of the proposed change(s) is mailed by first-class mail to the last known address of each member of the Council AdCom at least twenty-five days prior to such meeting.

A Bylaw may also be adopted or amended by a mail ballot provided that a copy of the proposed change(s) is mailed to the last known address of each member of Council AdCom, at least thirty days are allowed for a reply, and a majority of the entire Council AdCom votes affirmatively.

The new Bylaw or Amendment shall be filed with the Secretary of the IEEE Technical Activities Board at least twenty days prior to the effective date.

Section 3. The Constitution, Bylaws, and Statements of Policy of the IEEE shall, at all times, take precedence over those of the Council.

Section 4. All amendments to the Constitution or Bylaws shall become effective immediately after all required approvals have been obtained, unless a later date has been specified at the time of the vote.

Constitution Adopted November 17, 1989, Amended 9/93

BYLAWS FOR THE IEEE COUNCIL ON NEURAL NETWORKS

These Bylaws provide detailed guidance for the supervision and management of Council affairs, in accordance with the Council Constitution. Amendments or additions may be made by means of the procedures described in Article XI, Section 2, of the Constitution.

ARTICLE I

RULES OF ORDER

Section 1. In all matters not covered by the Constitution, Bylaws, and Rules, the Council shall be governed by the latest edition of Robert's Rules of Order.

ARTICLE II

MEMBER SOCIETIES

Section 1. The Member Societies of the Council shall be those formally admitted by the IEEE Technical Activities Board in accordance with the Council Constitution. A current listing of Member Societies will be maintained by the TAB Secretary at IEEE Headquarters.

Section 2. Any Member Society unwilling or unable to continue to share responsibilities as defined in the Council Constitution may resign from the Council. When a letter of resignation has been received by the Council Secretary, the resigning Society shall be dropped from the Council roll at the end of the calendar year. Any former Member Society may later rejoin, without prejudice, on the same basis as any new applicant.

ARTICLE III

NOMINATIONS, ELECTIONS, AND APPOINTMENTS

Section 1. The Nominations and Appointments Committee, which is a Standing Committee of the Council, shall consist of a Chairperson and three other members. At least one shall not be a current Council member but shall belong to at least one Member Society. The Immediate Past President shall be the Chair of the Nominations and Appointments Committee. Other officers of the Council may not serve on the Nominations and Appointments Committee nor be members ex-officio.

Section 2. The Chairperson of the Nominations and Appointments Committee shall consult with each candidate prior to nomination to determine willingness to serve if elected.

Section 3. The Nominations and Appointments Committee shall be guided in its selections by the principles of efficiency, geographical distribution, past history, and technical interest.

Section 4. The Chairperson of the Nominations and Appointments Committee shall submit the Committee Report to the Council AdCom at the beginning of its Annual Meeting, or with the approval of the Council President, by letter to all qualified voting officers and representatives on the Council AdCom prior to the Annual Meeting. From the floor of the same meeting or by letters mailed to the entire Council AdCom, the officers and representatives may make additional nominations.

Section 5. The names of any candidates of the Council who are not eligible under the Constitution or Bylaws shall be withdrawn by the President of the Council.

Section 6. Election of the officers, whenever a vacancy exists, shall be from those nominates as specified in these Bylaws, Article III, Sections 2, 3, 4, and 5. Elections shall be by secret ballot of the voting members of the Council AdCom. For the first year of operation of the Council, the officers must be elected by secret ballot directly by the Council AdCom. Nominations must be made by the voting AdCom members.

Section 7. The AdCom shall elect the Executive Vice President, the Vice-President for Conferences, the Vice-President for Publications, and the Vice President for Finances from its current members or among those past members who have served as Society-appointed or ex-officio AdCom members within the previous three years. The AdCom shall elect the President from its members who have served as Officers within the previous four years. If a candidate for President cannot be found who meets this criterion, then candidates for President may be chosen from the current Society-appointed members of AdCom or among those past members who have served as Society-appointed AdCom members within the previous three years.

Section 8. The terms of office for the Officers of the Council, and their eligibility for reelection shall be: the President (1 year term, renewable once), the immediate Past-President, the Executive Vice President (2 year term, non-renewable), the Vice-President for Conferences (2 year term, non-renewable), the Vice-President for Publications (2 year term, non-renewable), and the Vice President for Finances (2 year term, renewable).

Eligibility for a particular office shall be restored after a lapse from that office of one year. The Executive Vice President and the Vice-President for Conferences will be elected to begin their terms in even numbered years while the Vice-President for Publications and the Vice President for Finances will be elected to begin their terms in odd numbered years.

Section 9. If any Council office becomes vacant at any time during the year, and if the vacant office cannot be filled by logical succession of an existing Council officer as described in the Constitution and Bylaws, the Council will promptly hold an election to fill the existing vacancy.

Section 10. As needed, elections shall be held separately for the offices of President, Executive Vice President, Vice-President for Conferences, Vice President for Publications and Vice President for Finances, in that order. To be elected, a nominee must receive a majority of the proper votes cast. If no candidate receives a majority on a ballot, the name of the candidate receiving the smallest vote shall be withdrawn and a second ballot taken. This procedure shall be repeated until one candidate receives a majority vote.

The Council AdCom may hold contingent elections to be effective if an elected officer fails to accept office, is disapproved by IEEE Headquarters because there has been some irregularity in the nominations and election procedures, or has failed to maintain IEEE membership and Society membership.

Section 11 The President of the Council shall inform each successful candidate of his election and shall arrange for the transfer of responsibility. The name of each elected officer shall be reported to the Chairman and Secretary of the IEEE Technical Activities Board.

Section 12. The terms of office for the Editors of the Council's Periodicals are each to be for two years, renewable twice. Upon a vacancy or an expiration of a term, the President may appoint a qualified individual to an Editor post, with the advice of the Nominations and Appointments Committee, and with the Consent of AdCom. No Editor may serve more than six years in the same post.

ARTICLE IV

STANDING COMMITTEES

Section 1. The Standing Committees shall include the following:

- Meetings Committee
- Publications Committee
- Nominations and Appointments Committee
- Constitution and Bylaws Committee
- Fellows Committee {approved January 1991}
- Standards Committee { approved July 1991}
- Finance Committee {approved September 1993}
- Liaison and Transnational Committee {approved September 1993}
- Education Committee {approved September 1993}

Section 2. The Council may establish such additional Standing Committees as may be deemed desirable. Regional Interest Groups may also be established.

Section 3. Each Standing Committee shall have the power to create subcommittees of its own selection.

Section 4. The organization of each Conference or Technical Meeting sponsored by the Council shall include a Steering Committee and a Program Committee whose Chairperson shall be appointed by the President upon the recommendation of the Meetings Committee and with the advice and consent of the Council AdCom. The individual members of the respective committees should be appointed by the above officials. The Meetings Committee, with approval of the Council, may plan, organize and sponsor other activities held in conjunction with Conferences of other societies. The Meetings Committee shall be chaired by the Vice President for Conferences.

Section 5. The Publications Committee shall be composed of the Vice President for Publications (as Chair), the Editors of all the publications of the Council (as ex officio, voting members), and at least 4 additional members who are or have been members of the Council's Administrative Committee. This Committee shall establish publication policy subject to annual review by the Council. It shall assist the appropriate Editors of Council Periodicals in the choice of special topics and in guiding and planning all Publications.

Editors may designate associate editors, special guest editors, and manuscript reviewers, doing so in accordance with general IEEE statements of Policy.

Editorial expenses must be in accordance with an annual budget approved by the Council. Editors may authorize publication expenses, but shall be responsible for adherence to the publication budget.

Section 6. The Nominations and Appointments Committee shall be appointed by the President of the Council in accordance with the provisions of the Constitution and Article III, Section 1, of these Bylaws. It shall have the duties described in Article III, Sections 1, 2, 3, 4, of these Bylaws. The Chairperson of the Nominations and Appointments Committee shall be the Immediate Past President of the Council.

Section 7. The Secretary of the Council shall serve as the Chairperson of the Constitution and Bylaws Committee. Additional members may be appointed by the President upon request of the Council's AdCom.

The functions of the Constitution and Bylaws Committee will be to:

- a. Maintain up-to-date copies of the Constitution and Bylaws and make them available upon request.
- b. Ascertain that the Constitution and Bylaws are not in conflict with any requirements or rules of IEEE Headquarters.
- c. Recommend changes in the Constitution or Bylaws as necessary to conform to the development of the Council or to changes by IEEE Headquarters.
- d. The Chairperson of the Constitution and Bylaws Committee shall serve as Parliamentarian and Consultant on Procedural matters at meetings of the Council AdCom.

Section 8. The Finance Committee shall assist the Vice President for Finances in developing Council budgets, reviewing long-range fiscal planning, and suggesting new sources for income. The Finance Committee shall be Chaired by the Vice President for Finances.

Section 9. The Liaison and Transnational Committee shall assist the President in maintaining the Liaison Activities of the Council. This Committee shall be chaired by the Immediate Past President.

ARTICLE V

FINANCES

Section 1. The Vice President for Finances shall submit a proposed Council budget for the ensuing year in accordance with IEEE budget development guidelines. When approved by the Council and the TAB, this budget shall become the working budget for the following year. This approved budget will constitute authorization to the Vice President for Finances to disburse the funds in amounts not to exceed any budgeted item.

The Vice President for Finances shall be responsible for forwarding to IEEE Headquarters the approved budget, and Headquarters will be thereby authorized to disburse the funds in accordance with instructions from the Vice President for Finances.

The Vice President for Finances shall obtain a financial statement of receipts, expenditures, and balances from IEEE Headquarters at least twice yearly and shall distribute copies of this statement to all members of the Council AdCom. The Vice President for Finances shall also keep a running account of commitments to date.

Section 2. The financial support for the Council shall be derived from the income from sales of the Council Periodicals, Books and IEEE Press publications, and from its share of any surplus from the Council sponsored Conferences. The Periodicals subscription prices to members of the Council Member Societies shall be set to be no less than self-sustaining.

Section 3. In the event of a distribution of surplus, or payment of a deficit, during the first year of publication of a Council periodical, each Council Member Society shall receive or pay an equal share.

Section 4. In the event of a distribution of surplus, or payment of a deficit, during the second and subsequent years, each member Society's share will be proportional to the number of years that Society has been a member of the IEEE Neural Network Council (founded 1990) and/or member of the IEEE Neural Networks Committee (founded 1987 and dissolved 1989). {This amendment of the Bylaws was approved by the Council AdCom, November, 1990:}

Tab #4
NNC Item IV.E.4
January 1993

Summary of TAB Actions

SUMMARY OF ACTIONS
Technical Activities Board
November 20, 1993

The following actions were taken during the Technical Activities Board meeting held November 20, 1993 at the North Raleigh Hilton, Raleigh, North Carolina.

1. Elected Frederick H. Dill as Chairman of the TAB Liaison Council for the term 1994-95.
2. Elected Robert A. Dent as Chairman of the TAB Periodicals Council for the term 1994-95.
3. Appointed David G. Goodenough, President of the IEEE Geoscience and Remote Sensing Society, Gerald F. Harris, President of the IEEE Engineering in Medicine and Biology Society, Christine Nielsen, President of the IEEE Society on Social Implications of Technology, T.J. (Tzyh-Jong) Tarn, President of the IEEE Robotics and Automation Society, and Ching-Ping (C.P.) Wong, President of the IEEE Components, Hybrids, and Manufacturing Technology Society, as Society President Representatives to the TAB Administration Council for the term 1994, with Dr. Harris and Prof. Tarn also serving as members of the TAB Finance Committee for the term 1994.
4. Appointed Richard Klafter, IEEE Robotics and Automation Society, Dennis R. Olsen, IEEE Components, Hybrids, and Manufacturing Technology Society, Yacov Shamash, IEEE Aerospace and Electronics Systems Society, Madan G. Singh, IEEE Systems, Man, and Cybernetics Society, Alfred C. Weaver, IEEE Industrial Electronics Society, and a representative from the IEEE Power Electronics Society, as Society Presidents' Representatives to the TAB Steering Committee on Design and Manufacturing Engineering for the term 1994.
5. The 1994 memberships of the TAB Periodicals, Products and Technical Meetings Councils were announced.
6. Approved that TAB implement a program for a token of appreciation to be given to staff called the TAB Staff Recognition for Excellence.
7. Agreed with the proposed establishment of the IEEE Electronic Data Repository in principle.
8. As requested by the TAB Technical Meetings Council, endorsed additions to IEEE Policy Statement 10.1, regarding the ethics of handling papers and/or abstracts submitted to conferences, for recommendation of approval by the IEEE Board of Directors.
9. Endorsed for recommendation of approval by the IEEE Board of Directors modifications to IEEE Policy Statement 6.9 permitting voluntary page charges for magazines.

TAB Summary of Actions
Page 3

23. As requested by the TAB/USAB Ad Hoc Committee on Technology Policy Development, received the document, "Technical Information for the Public Welfare" (fifth working draft dated August 30, 1993) in principle, and requested that the Technical Information Statement (TIS) Oversight Committee be established in 1994 for a trial period of one year. Further approved charging the TIS Oversight Committee with determining the viability of the overall process during 1994 and reporting to USAB and TAB on the status of these activities at the last meetings of 1994.
24. Endorsed for recommendation of approval by the IEEE Board of Directors the IEEE Strategic Plan.
25. Approved the preliminary 1994-95 TAB Operational Plan.
26. Recommended to the IEEE Regional Activities Board modifications to IEEE Bylaw 406.6 outlining Chapter management responsibilities.
27. Recommended to the IEEE Regional Activities Board modifications to IEEE Bylaw 406.4 detailing Chapter membership and the amount of technical meetings.
28. Commended the IEEE Regional Activities Board for sharing concerns regarding the perceived adverse impact of the new rebate schedules on Chapter activities and expressed appreciation for the supportive action taken by RAB during its November, 1993 meeting.
29. Tabled a Motion to allocate \$20k in 1994 to the TAB Steering Committee for Design and Manufacturing Engineering to be spent on new program development.
30. Approved revisions to the following awards:
 - IEEE Antennas and Propagation Society Sergi A. Schelkunoff Transactions Prize Paper Award
 - IEEE Antennas and Propagation Society Harold A. Wheeler Applications Prize Paper Award
 - IEEE Antennas and Propagation Society R.W.P. King Award
 - IEEE Communications Society Leonard G. Abraham Prize Paper Award in the Field of Communications Systems
 - IEEE Communications Society Stephen O. Rice Prize Paper Award in the Field of Communications Theory

Tab #5
NNC Item V.A.1
January 1993

TNN Editor's Report

Selection Committee:

The Pioneer Award Committee will be an ad hoc subcommittee of the Awards Committee of the IEEE Neural Networks Council. With the passage of time, the membership of the Pioneer Award Committee will be composed in part or in full from previous Pioneer Award recipients.

Schedule:

The selection will be made annually with nominations invited in September, nominations closed on February 1, selection by April 1, IEEE Neural Network Council Administrative Committee approval by May 1, and publicly awarded at the International Joint Conference on Neural Networks (IJCNN), usually held in June or July.

Selection:

Up to three Pioneers will be selected annually.

Presentation:

The award will be presented at the International Joint Conference on Neural Networks (IJCNN).

Publicity:

The award winners will be announced publicly in the "IEEE Transactions on Neural Networks," and a brochure will be prepared for distribution at the annual IJCNN. A news release announcing the award will be sent to other appropriate IEEE publications and distributed to the general press at the IJCNN.

Term:

The award will be administered as described here for a period of five years. Renewal of the award under the same or modified procedures is possible, depending on the five year experience with the award.

IEEE Neural Networks Council Award Description

Name of Award:

IEEE Transactions on Neural Networks Outstanding Paper Award.

Description:

An annual award for the outstanding paper published in the IEEE Transactions on Neural Networks in the previous two-year period.

Administration:

By the Awards Committee of the IEEE Neural Networks Council. Nominations will be solicited from the Editor of the Transactions, Associate Editors, Executive Advisory Board, and Transactions Editorial Board, and from readers of the Transactions. The Awards Committee will judge the nominated papers and submit a recommendation to the Executive Committee of the Neural Networks Council Administrative Committee for final approval.

Eligibility:

All papers published in the IEEE Transactions on Neural Networks are eligible. For 1991, papers published in 1990 (Volume 1) will be eligible. For 1992 and thereafter, papers published in the previous two years will be eligible. A paper selected for the award is not eligible for a second award in the following year.

Award:

The author of the selected paper will receive a cash award of \$500 and a certificate. For a paper with multiple authors, the cash award will be shared by the coauthors and each coauthor will receive a certificate.

Funds:

Funding will be from Neural Networks Council revenues generated by sales of the Transactions to libraries and nonmembers of the IEEE.

~~ATTACHMENT #3~~

AdCom:

12/17/93

What Happened to this?

RJ

June 7, 1992

Proposal to NNC AdCom concerning a new award

At the suggestion of Prof. John Yen of Texas A&M University, and after a first round of discussion at the March 1992 NNC AdCom meeting, a proposal for a new award in the fuzzy systems area has been drafted. It is proposed for discussion and possible approval by the NNC AdCom; should it be approved, the proposal would go to the IEEE TAB Awards and Recognition Committee for their consideration and approval.

Two changes have been made to the award description as formulated by Prof. Yen. First: he proposed that the name be "IEEE Neural Network Council Zadeh Award" and it is not deemed appropriate to use the name of a living person in the award name. Second: the amount the award has been set at \$500 rather than a larger amount. This is deemed appropriate in view of the fact that our prestigious Pioneer Awards carry no cash award and our Transactions Paper Award carries a \$500 cash award.

What follows is the award description which is to be discussed and approved (subject to amendments) by the NNC AdCom.

Bradley Dickinson
IEEE NNC Awards Committee Chair

MOTION:

The NNC ^{AdCom} directs the new Awards Committee chair to pursue this new award's approval.

Name of Award: IEEE Neural Networks Council Fuzzy Logic Technology Award

Description: For a major contribution to the development of outstanding fuzzy logic applications that have had significant impact on industrial usage of fuzzy logic technology.

Administration: By the Awards Committee of the Neural Networks Council. An Ad Hoc Subcommittee will solicit nominations and judge the candidates. Their selection will be submitted to the Awards Committee for approval and to the Administrative Committee of the Neural Networks Council for final approval.

Eligibility: Open to all meeting the contribution requirements. The award is not to be approved posthumously. Anyone can nominate.

Award: Certificate, a cash award of \$500, and travel grant for the honoree and companion to the awards ceremony.

Funds: Funding will be from the non-dues revenue of the IEEE Neural Networks Council or from industrial donations.

Nominee Selection: Selection will be based on nomination letters received by the Awards Committee of the IEEE Neural Networks Council.

Award Committee: The selection committee will be an Ad Hoc Subcommittee of the Neural Networks Council Awards Committee. With the passage of time, the membership of the Ad Hoc Subcommittee will be composed in part or in full by prior Award holders.

Schedule: The selection will be made annually with nominations invited in July, nominations closed on November 1, selection by January 1, Neural Network Council approval by February 1, and public award at the IEEE International Conference on Fuzzy Systems (FUZZ-IEEE), usually in March.

Selection: At most one recipient of the award in any year.

Presentation: The award will be presented at the IEEE International Conference on Fuzzy Systems (FUZZ-IEEE).

Publicity: The award winners will be announced publicly in the IEEE Transactions on Fuzzy Systems, and a flyer will be prepared for distribution at the annual FUZZ-IEEE.

Term: The award will be administered as described here for a period of 5 years. Renewal of the award under the same or modified procedures is possible, depending on the five year experience with the award.

12/8/93



IEEE MEMBERS ELECTED TO FELLOW GRADE AS OF JANUARY 1, 1994
 (See Technical Society/Council Code Designations Appended to this Report)

IEEE

| <u>IEEE MAILING ADDRESS</u> | <u>CITATION</u> | <u>TECHNICAL SOC./CNCL ENROLLMENT</u> | <u>EVALUATED BY</u> |
|---|---|---------------------------------------|---------------------|
| Dr. Eleanor R. Adair John B. Pierce Lab. Inc. 290 Congress Avenue New Haven, CT 06519 | For contributions to understanding the effects of radiofrequency energy on biological thermoregulation and to the formulation of safe-exposure standards for man. | 18 | 18 |
| Prof. Arlon T. Adams Dept. of ECE, 111 Link Hall Syracuse University Syracuse, NY 13210 | For contributions to the development and application of the method of moments to antenna theory. | 03,17,27 | 03 |
| Dr. Bajarang L. Agrawal Arizona Public Service Co. MS 3883 - P. O. Box 53999 Phoenix, AZ 85072 | For contributions to the identification, measurement, and control of subsynchronous resonance in power systems. | 31,18 | 31 |
| Dr. Colin S. Aitchison 37 Cronks Hill Road Redhill Surrey, England | For contributions to the design of microwave active circuits. | 17 | 17 |
| Prof. Charles K. Alexander, Jr. 205 E. Highland Avenue Philadelphia, PA 19118 | For leadership in the field of engineering education, and the professional development of engineering students. | 16,25,31 | 25 |
| f. Shun-ichi Amari University of Tokyo Bunkyo-ku Hongo Tokyo 113 Japan | For contributions to mathematical foundations of neurocomputing and information geometry. | 12, | NN |
| Prof. Kurt J. Antreich Technical University of Munich Arcisstrasse 21 D-80333 Munich 2, Germany | For contributions to computer-aided tolerance design of electronic circuits and computer-aided layout design of integrated circuits. | 04,16 | 04 |
| Dr. Yalcin Ayasli Hittite Microwave Corp. 21 Cabot Road Woburn, MA 01801 | For contributions to the design and development of wide band gallium arsenide (GaAs) monolithic microwave integrated circuits (MMIC's). | 04,06,07, 08,15,17, 19,NN,SSC | 17 |
| Prof. H. Thomas Banks North Carolina State Univ. Math. Dept., Box 8205 Raleigh, NC 27695 | For contributions to estimation and control of distributed parameter systems. | 23 | 23 |
| Prof. Tibor Berceci Gabor Aron-U 65 1026 Budapest, Hungary | For contributions in the fields of microwave photonics and nonlinear microwave circuits. | 17 | 17 |
| Dr. Jens P. Blauert Girondelle 30 D-44799 Bochum, Germany | For contributions to binaural technology. | 01,16 | 01 |
| James T. Brady 10 Queensbridge Ct. San Jose, CA 95120 | For contributions to storage hierarchy technology for computers. | 16 | 16 |
| Dr. Vladimir Brandwajn ABB System Control 2550 Walsh Avenue Santa Clara, CA 95051 | For developments in sparse matrix/sparse vectors methods for power system analysis. | 31 | 31 |

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|--|---|---|-------------------------------|
| John H. Brunke Bonneville Power Admin. MS EOHA, POB 3621 Portland, OR 97208 | For contributions to the development and application of advanced high-voltage circuit breaker technology. | 31 | 31 |
| Mr. Norman Caplan 6438 Needleleaf Drive Rockville, MD 20852 | For leadership in engineering research of robotics. | 18,22,24 | 24 |
| Prof. Howard C. Card Univ. of Manitoba, EE Dept. Winnipeg Man., Canada R3T 2N2 | For contributions to the experimental and theoretical modeling of microelectronic devices | 04,16,NN, SSC | 15 |
| Mr. O. Thomas Carver 72 Queen Anne Lane, R R2 Cotuit, MA 02635 | For contributions to automatic test system architectures. | 09,30 | 09 |
| Dr. Zhenming Chai 17 Zhong-Guan-Cun Road P. O. Box 2702 Beijing 100080 China | For leadership in building a premier research and teaching institute in electronics, and propelling circuits and systems activities in China. | 04 | 04 |
| Dr. Vincent W. S. Chan 163 Tower Road Lincoln, MA 01773 | For leadership in optical communication systems. | 12,19,36. | 36 |
| Dean Jin-Fu Chang Office of Dean of Acad. Affairs National Central University ing-Li 320, Taiwan | For contributions to research and education in computer communications. | 06,10,12, 16,19 | 19 |
| Prof. Wen-Tsuen Chen National Tsing Hua University Inst. of Comp. & Decision Sci. Hsinchu 30043, Taiwan | For contributions to software engineering and parallel processing systems design. | 16,19 | 16 |
| Prof. Yiu chung Cheng City Polytechnic of Hong Kong 83 Tat Chee Ave. Kowloon Tong Kowloon, Hong Kong | For contributions to the development of MOS technology and devices. | 15 | 15 |
| Dr. Pandipati R. K. Chetty 20301 Century Blvd./MS A37 Fairchild Space Co./ D-1 Germantown, MD 20874 | For the development of power conditioning and control electronics for satellite electrical power systems. | 10,35 | 10 |
| Dr. Yau Chau Ching 24 Big Beech Lane Colts Neck, NJ 07722 | For leadership in the conception, standardization, and deployment strategy of the synchronous optical network (SONET). | 19 | 19 |
| Dr. Aristos Christou 6008 Marilyn Drive Alexandria, VA 22310 | For contributions to the reliability of microwave power devices. | 15 | 15 |
| Dr. Ching-Te K. Chuang IBM T. J. Watson Res. Ctr. P. O. Box 218, Rm. 21-241 Yorktown Heights, NY 10598 | For contributions to high-performance bipolar devices, circuits, and technology. | 04,15,SSC | 15 |
| Prof. Charles K. Chui Texas A&M University Dept. of Mathematics College Station, TX 77843 | For contributions to approximation and wavelet theories and to their application to signal processing. | 01,23,NN | 01 |
| Mr. Charles F. Clark 16534 NE Oregon Portland, OR 97230 | For leadership in developing cooperative utility planning in the Western U.S. transmission system. | 31 | 31 |

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|---|--|---|-------------------------------|
| John R. Cooper 118C Wilmette Ave., #C Wilmette, IL 60091 | For leadership in the development and application of interrupter switch technology for electrical power systems. | 31,34 | 34 |
| Mr. John M. Cotton 14 Osborne Avenue East Norwalk, CT 06855 | For contributions to switching system architectures involving high levels of fault tolerance. | 16,19 | 19 |
| Dr. Jean-Pierre C. Crine C. P. 1000 IREQ Vareennes, Que., Can. J3X 3S1 | For contributions to the theory of aging of insulation materials, and the phenomena at metal-dielectric interfaces. | None | 32 |
| Prof. Sandor Csibi Technical Univ. of Budapest BME Stoczek U-2, H-1111 Hungary | For contributions to Markovian methods in multi-access communications and to engineering education. | 12 | 12 |
| Mr. James M. Daly 11 Valley Lane Saddle River, NJ 07458 | For contributions to the application of electrical wire and cable, and leadership in electro-technical standards development. | 31,34 | 34 |
| Prof. Sunil R. Das University of Ottawa, Dept. of EE Ottawa, Ont., Canada K1N 6N5 | For contributions to switching theory and computer design. | 04,16,28 | 16 |
| Dr. Anthony C. Davies 20 Manor Road, Potters Bar Herts EN6 1DQ, England | For contributions to the theory and analysis of active networks. | 01,04,16 | 04 |
| Dr. Alan M. Davis 770 Nebula Court Colorado Springs, CO 80906 | For contributions to software engineering. | 16 | 16 |
| Mr. Murray W. Davis 471 Renaud Grosse Pt. Woods, MI 48236 | For contributions to a thermal rating system leading to increased capacity of overhead transmission lines and power equipment. | 31 | 31 |
| Dr. Gordon W. Day NIST, 814.02 325 Broadway Boulder, CO 80303 | For technical contributions and leadership in lightwave measurements and optical fiber sensors. | 36 | 36 |
| Prof. Giovanni De Micheli Ctr. for Integrated Sys., Rm 129 Stanford University Stanford, CA 94305 | For contribution to synthesis algorithms for the design of electronic circuit and systems. | 04,16,SSC | 04 |
| Prof. Renato De Mori McGill University, Rm. 318 3480 University St. Montreal, Que., Canada H3A 2A7 | For contributions to symbolic and quantitative methods of signal interpretation and understanding. | 01,16,NN | 16 |
| Dr. Andrew G. F. Dingwall 629 Princeton/Lawrenceville Rd. Princeton, NJ 08540 | For contributions in the initial commercial development of CMOS process and circuit technology. | None | SSC |
| Gerald F. Dionne High Street Manchester, MA 01890 | For contributions to the theory and development of ferrimagnetic materials and microwave ferrite devices. | 17,33 | 33 |
| Mr. Nicholas M. Donofrio 52 Armand Road Ridgefield, CT 06877 | For leadership and contributions to computer component and product development. | 16 | 16 |

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|--|---|---|-------------------------------|
| Mihai D. Drăgănescu Romanian Academy Celea Victoriei 125 Sect. 1 Bucharest, Romania | For contributions to the field of electron devices, and for leadership in developing electron device education in Romania. | 15,16 | 15 |
| Mr. Charles J. Durkin, Jr. 1335 Ellen Lane Yorktown Heights, NY 10598 | For technical leadership in improving the reliability of large-complex electric power systems. | 31 | 31 |
| Dr. Lawrence N. Dworsky 9638 E. Cochise Drive Scottsdale, AZ 85258 | For contributions to piezoelectric and transmission line resonators and band pass filters for telecommunications applications. | 15,17,20 | 20 |
| Prof. Ahmed M. El Serafi Dept. of Electrical Engrg. University of Saskatchewan Saskatoon, Sask., Canada S7N 0W0 | For contributions to the understanding of the cross-magnetizing effect in synchronous machines. | 04,09,13, 23,24,25, 31,32,33, 34,35 | 31 |
| Prof. Aicha Elshabini-Riad Dept. of Electrical Engineering Virginia Polytechnic Inst & S U Blacksburg, VA 24061 | For contributions to micro-electronics education and to hybrid microelectronics for microwave applications. | 15,21 | 21 |
| Prof. John D. Enderle Dept. of Electrical Engineering North Dakota State University Fargo, ND 58102 | For contributions to biomedical engineering education, and to the development of student-initiated design competitions on an international basis. | 18 | 18 |
| Prof. Y. Yariv Ephraim Dept. of ECE George Mason University Fairfax, VA 22030 | For contributions to the theory and application of statistical speech enhancement. | 01,12 | 01 |
| Prof. David J. Farber The University of Pennsylvania Moore Sch. of Elec. Engrg. 200 S. 33rd Philadelphia, PA 19104 | For contributions to computer languages, distributed computing, and advanced computer communications networking. | None | 19 |
| Dr. John J. Fearnside 1502 Chain Bridge Court Mc Lean, VA 22101 | For contributions to the application of analysis and control strategies to air traffic control systems. | 23 | 23 |
| Prof. Raymond D. Findlay Dept. of ECE McMaster University Hamilton, Ont., Canada L8S 4K1 | For contributions to analysis and measurement of electrical machine characteristics. | 26,31,33, 34 | 34 |
| Dr. Robert Fischl 305 Pembroke Avenue Moorestown, NJ 08057 | For contributions to the design and understanding of power systems. | 04,23,31, NN | 31 |
| Prof. Jeffrey I. Frey Dept. of Electrical Engrg. University of Maryland College Park, MD 20742 | For contributions to the understanding of the physics and simulation of submicron semiconductor devices. | 15 | 15 |
| Prof. Tomoo Fujioka Institute of Laser Tech. Japan 3-5-1 Tomioka Koto-ku Tokyo 135 Japan | For contributions to quantum electronics and the development of high-power gas lasers. | 36 | 36 |
| Prof. Tadashi Fukao Tokyo Inst. of Tech./Dept. EEE 2-12-1 O-Okayama /Meguro-ku Tokyo 152 Japan | For developments of synchronous reluctance motors and generators in super-high-speed applications. | 13,31,34, 35 | 34 |

| <u>IEEE MAILING ADDRESS</u> | <u>CITATION</u> | <u>TECHNICAL SOC./CNCL ENROLLMENT</u> | <u>EVAL- UATED BY</u> |
|---|--|---|-------------------------------|
| Daniel D. Gajski Dept. of Computer Science Univ. of California, Irvine Irvine, CA 92717 | For contributions to VLSI and system level design methodologies and CAD tools. | 04,16 | 04 |
| Mr. Ruben D. Garzon ABB Circuit Breaker Div. P. O. Box F-7 Florence, SC 29501 | For contributions to the advancement of interruption technology. | 31 | 31 |
| Mr. Elias Ghannoum 76 Claude Champagne Outremont, Que., Canada H2V 2X1 | For contributions to reliability-based design and leadership in international standardization of transmission line design. | 31 | 31 |
| Mr. Klein S. Gilhousen 6474 Jackson Creek Road Bozeman, MT 59715 | For contributions to the design of military, commercial satellite, and terrestrial telecommunications systems. | 06,19 | 06 |
| Mr. Anthony T. Giuliante 1751 Maxwell Court Yorktown Heights, NY 10598 | For contributions to protective relaying education and its analysis in operational environments. | 31 | 31 |
| Dr. Jitendra Goel 30578 Ganado Drive Palos Verdes, CA 90274 | For contributions to the development of microwave and millimeter-wave high-power components. | 17 | 17 |
| Dr. Masuo Goto Miyuki-cho 1-11-10 Chi-shi, Ibaraki 316 Japan | For contributions to the development of power system stability technologies. | 31 | 31 |
| Prof. William A. Gross Dept. of Mechanical Engrg. University of New Mexico Albuquerque, NM 87131 | For developing the fundamental understanding of gas bearings used in digital disk computer memories and video cassette recorders. | 14,30 | 14 |
| Dr. Thomas W. Grudkowski 107 Sherwood Drive Glastonbury, CT 06033 | For development of integrated microwave acoustics and semiconductor technologies for high-speed signal processing. | 20 | 20 |
| Dr. Ronald J. Gutmann 64-23rd Street Troy, NY 12180 | For contributions in microwave semiconductor technology. | 14,15,17, 21,SSC | 17 |
| Dr. Gerald R. Harris 132 So. Van Buren Street Rockville, MD 20850 | For contributions to the measurement and understanding of ultrasound in medical applications. | 20 | 20 |
| Dr. Shiro Hata 1-13-12 Niwashirodai Sakai Osaka 590-01 Japan | For contributions to electronic controls education. | 13,23 | 25 |
| Dr. Philip Heidelberger IBM/T.J. Watson Res. Center P. O. Box 704 Yorktown Heights, NY 10598 | For contributions to the theory of discrete event simulations. | 16 | 16 |
| Prof. Richard K. Hester a State Univ., Dept. of EECE Coover Hall s, IA 50011 | For contributions to programmable single-chip data acquisition systems. | 01,04,19, SSC | SSC |
| Mr. Thomas D. Higgins 613 Fort Hill Drive Charleston, WV 25314 | For leadership and innovation in engineering, and planning of energy and cogeneration systems for chemical and plastics manufacturing complexes. | 34 | 34 |

| <u>IEEE MAILING ADDRESS</u> | <u>CITATION</u> | <u>TECHNICAL SOC./CNCL ENROLLMENT</u> | <u>EVAL- UATED BY</u> |
|---|--|--|-------------------------------|
| Michael G. Hluchyj 27 Jackson Road Wellesley, MA 02181 | For contributions to the theory, design, and analysis of switching and queueing in high-performance packet communication networks. | 12,16,19 | 19 |
| Mr. Leander H. Hoke, Jr. 613 E. Fox Den Road Knoxville, TN 37922 | For contributions to the design and development of radio and television receivers. | 08 | 08 |
| Prof. Nozomu Hoshimiya Tohoku Univ., Dept of Commun. Eng. Aobayama, Sendai 980, Japan | For contributions and leadership in the field of biomedical engineering. | 18, NN | 18 |
| Prof. Evelyn L. Hu Dept. of ECE/4165 Eng. I University of California Santa Barbara, CA 93106 | For contributions to the development of high-resolution dry etching processes in compound semiconductors. | 15,36 | 15 |
| Dr. Genda J. Hu 776 Carlisle Way Sunnyvale, CA 94087 | For contribution to the understanding and solutions to the latchup phenomenon in CMOS VLSI. | 15 | 15 |
| Dr. Charles C. Huang Anadigics Inc. 35 Technology Drive Warren, NJ 07060 | For engineering contribution and technical leadership in the development of high-volume GaAs MMIC's for commercial applications. | 2,4,7,8,9 12,13,14, 15,16,17, 19,21,SSC | 17 |
| Prof. Huey liang Hwang Dept. of Elec. Engrg. Ning Hua University Hsin-chu 300 Taiwan | For contributions to the fundamental understanding of photovoltaic and semiconductor materials and devices. | 15 | 15 |
| Prof. James Cheng M. Hwang Lehigh Univ. Fairchild Lab. 161 161 Memorial Dr., E Bethlehem, PA 18015 | For contributions to development of molecular beam epitaxy manufacturing and heterostructure devices and materials. | 15,17 | 15 |
| Dr. Yoshitaka Ikeda Tomioka-Higashi 1-34-6 Kanazawa-ku Yokohama 236, Japan | For contribution to the field of power electronics and to the standardization of power electronic equipments. | 35 | 35 |
| Dr. Koichi Inada Fujikura Ltd. 1440 Mitsuzaki Sakura-shi Chiba-ken 285, Japan | For contribution to the development of low-loss, high-reliability optical fiber and cables. | 17,19,36 | 36 |
| Prof. Petros A. Ioannou Univ. of So. California, EE Sys. 3740 McClintock Avenue, MC 2562 Los Angeles, CA 90089 | For contributions to the theory of robust adaptive control. | 06,23,NN | 23 |
| Prof. Mary Jane Irwin Penn State Univ., Comp. Sci. Dept University Park, PA 16802 | For contributions to computer arithmetic and digital signal processing architectures. | 01,04,16 | 16 |
| Prof. Tadatsugu Itoh 2-9-1 Nakaochiai Shinjuku-ku, Tokyo 161 Japan | For contributions to the process technologies of semiconductor devices. | 21 | 21 |
| . Vijay S. Iyengar 4/T.J. Watson Research Ctr. O Box 218 Yorktown Heights, NY 10598 | For contributions to the theory and practice of fault modeling and delay fault testing. | None | 16 |
| Prof. David C. Jiles Ames Laboratory Iowa State University Ames, IA 50011 | For contributions to the understanding and application of hysteresis effects in magnetic materials. | 14,33 | 33 |

| <u>IEEE MAILING ADDRESS</u> | <u>CITATION</u> | <u>TECHNICAL SOC. /CNCL ENROLLMENT</u> | <u>EVAL- UATED BY</u> |
|--|---|--|-------------------------------|
| Richard L. Johnson 422 Rockhill San Antonio, TX 78209 | For contributions to the development of radio direction finding and location systems. | 01,03,10, 12,16,19 | 10 |
| Prof. Edward W. Kamen School of Elec. Engrg. Georgia Institute of Tech. Atlanta, GA 30332 | For contributions to the algebraic theory of linear infinite dimensional and arbitrary length time delay systems. | 04,10,23 | 23 |
| Dr. Takashi Katagi Electro-Opt. & Microwave Sys Lab Mitsubishi Electric Corp. 5-1-1 Ofuna Kamakura 247, Japan | For contributions to the theory of reflector and horn antennas, as applied to communication satellites. | 03,17 | 03 |
| Prof. J. Lawrence Katz School of Engineering Case Western Reserve University Cleveland, OH 44106 | For leadership in the application of ultrasonic wave propagation techniques to the anisotropic elastic properties of calcified tissues. | 18 | 18 |
| Dr. Andreas Kelen Floragatan 15 S-72461 Vasteras, Sweden | For leadership in the application of partial discharge analysis to machine insulation. | 16,31,32, NN | 32 |
| Dr. Koji Kikuchi The Furukawa Elec. Co., Ltd. 6-1 Marunouchi 2 chome Chiyoda-ku, Tokyo 100 Japan | For contributions to analysis of EHV oil-filled cables and their installation. | 31, 32 | 31 |
| f. Reuven Kitai Master Univ., EE Dept. Hamilton, Ont., Canada L8S-4L7 | For contributions to electrical engineering education and advanced measurement techniques. | 09 | 09 |
| Dr. Walton J. Kitchen, Jr. 18 Lakeside Lane N. Barrington, IL 60010 | For leadership in the research, development, and manufacture of leading-edge semiconductor technologies. | 15 | 21 |
| Prof. Yukio Kito Nagoya University/Dept. of EE Furo-cho Chikusa ku Nagoya 464, Japan | For contributions to the research and development of high-power engineering, especially heavy current interruption phenomena. | 05,31 | 31 |
| Prof. David L. Kleinman Connecticut Univ., EECS Dept. Storrs, CT 06268 | For contributions to the development of modeling techniques for manned-vehicle systems. | 28 | 28 |
| Prof. Ralph E. Kleinman Math Department University of Delaware Newark, DE 19711 | For contributions to low-frequency scattering as applied to radar, aerospace detection, and design procedures. | 03 | 03 |
| Prof. Hermann Kopetz Inst. fur Tech. Informatik Treitlstrabe 3 A-1040 Wien, Austria | For contributions to the field of fault-tolerant real-time local-area distributed systems. | 07,16 | 16 |
| Prof. Israel Korn Univ. of N S Wales, School of EE Kensington NSW 2033 Australia | For contribution to the analysis of digital communication systems. | 06,12,19 | 19 |
| Lloyd O. Krause 4015 Topside Lane Corona Del Mar, CA 92625 | For contributions to a world-wide satellite-based passive location system. | None | 10 |
| Dr. Walter R. Lachs 7 Garnet Avenue Lilyfield Sydney, NSW 2040, Australia | For contributions to the understanding of system voltage stability in electric power | 31 | 31 |

| <u>IEEE MAILING ADDRESS</u> | <u>CITATION</u> | <u>TECHNICAL SOC./CNCL ENROLLMENT</u> | <u>EVAL- UATED BY</u> |
|--|--|---|-------------------------------|
| Dr. Jaynarayan H. Lala 12 Bowdoin Road Wellesley, MA 02181 | For leadership in the development of fault-tolerant parallel computer systems. | 16 | 16 |
| Dr. Roy Lang 4-5-16 Egota Nakano-Ku, Tokyo 165, Japan | For contributions to the development of optoelectronic devices and materials. | 36 | 36 |
| Prof. Bhagawandas P. Lathi Dept. of Electrical Engrg. California State University Sacramento, CA 95819 | For contributions to electrical engineering education in the field of signals, systems, and communication. | 01,19,25 | 25 |
| Dr. John H. Lau 961 Newell Road Palo Alto, CA 94303 | For advancement of electronic packaging with special contributions to soldering science and fatigue studies. | 07,21 | 21 |
| Prof. J. Douglas Lavers Dept. of Electrical Engrg. University of Toronto Toronto, Ont., Canada M5S 1A4 | For contributions to the modeling of electrometallurgical systems and electroheat devices. | 13,31,33, 34,35 | 33 |
| Mr. Khai Dang Le ABB Energy Planning 1021 Main Campus Drive Raleigh, NC 27606 | For development and implementation of large-scale resource-scheduling software for electric utilities. | 31 | 31 |
| Prof. Edward A. Lee Dept. of EECS/518 Cory Hall University of California Berkeley, CA 94720 | For contributions to design methodologies and programming techniques for real-time digital signal processing systems. | 01,04,16, 19 | 01 |
| Mr. Harry F. Lenzing 40 New Street Colts Neck, NJ 07722 | For contributions to improvement of microwave line-of-sight communications links. | 03,17 | 17 |
| Dr. Herbert A. Leupold ERADCOM, DELET-ES-Elect Tech Lab Fort Monmouth, NJ 07732 | For contributions to electron beam guidance and magnetic biasing systems. | 15,33 | 33 |
| Prof. Lev B. Levitin Boston University 44 Cummington Street Boston, MA 02215 | For contributions to physical information theory and quantum communication systems. | 12,16 | 12 |
| Prof. Bernard C. Levy Univ. of California, ECE Dept. Davis, CA 95616 | For contributions to the modeling and estimation of multidimensional random processes. | 01,04,12, 23 | 23 |
| Dr. Frank L. Lewis Univ. of Texas at Arlington 7300 Jack Newell Blvd. S Fort Worth, TX 76118 | For contributions to descriptor systems and to control system education. | 13,23,24 | 23 |
| Prof. Michael A. Lieberman Dept. of Electrical Engrg. University of California Berkeley, CA 94720 | For contributions to research in plasma-assisted materials processing, nonlinear dynamics, and controlled fusion. | 05,25 | 05 |
| G. John Lipovski 31 S. Meadow Drive Austin, TX 78758 | For contributions to the development of database machines. | 16 | 16 |
| Prof. Michael A. Littlejohn Dept. of EE, 232 Daniels Hall North Carolina State University Raleigh, NC 27607 | For leadership and technical contributions to the understanding of semiconductor device physics and the simulation of high-speed | None | 15 |



IEEE

TRANSACTIONS ON NEURAL NETWORKS
NEURAL NETWORKS COUNCIL



Robert J. Marks II, Ph.D.
Editor-in-Chief

PLEASE REPLY TO:
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Tel: (206) 543-6990
Fax: (206) 543-3842
E-mail: marks@milton.u.washington.edu

December 16, 1993

Report of the Editor of the IEEE Transactions on Neural Networks.

The TNN has had another busy year. Not including letters, a total of 493 submissions were received during the last year. As is evident in the attached graph of patent (Figure 1) and paper (Figure 2) count on neural networks (a detailed description is in my Editorial in the September 1993 TNN), the activity in neural networks continues to accelerate.

There will be two special issues in 1994 - one in evolutionary programming and one on recurrent neural networks. Both were scheduled for 1993, but were bumped for reasons of lateness of submissions. There are requests for two special issues in 1995 - on pattern recognition and electronic implementation. A decision has not been made on whether to accept these proposals. Occasional special issues, I feel, add a solidifying sense of both variety and topical focus to the TNN.

Although acceptance criteria remain high, the TNN is backlogged for about 1.4 years. This is terrible in a field where change is so rapid. More than one author has complained. A significant page increase is needed badly. Hopefully, JACI will remove some of the pressure on the TNN. AdCom approved a 20% page increase in the pages in 1994. This has been rolled back to a 10% increase due to budgetary reasons. Both 1992 and 1993 had AdCom approved overages. The bottom line is that the page count for 1994 will be the same as that for 1993 - about 1300 pages.

After consulting with me, the attached spread sheet was prepared by President Simpson. It shows the financial breakdown of the TNN, and projects the income if, in 1995, the TNN page count is increased from 1300 to 1608. Subscription prices are raised. Member subscription, for example, is raised to \$20. This price is still significantly below that charged by other neural network journals. Projections are also given for 1996 and beyond. These are subject to change.

MOTION:

The NNC AdCom approves the 1995 budget for the IEEE TNN as it appears in the attached spreadsheet.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. Marks'.

Robert J. Marks

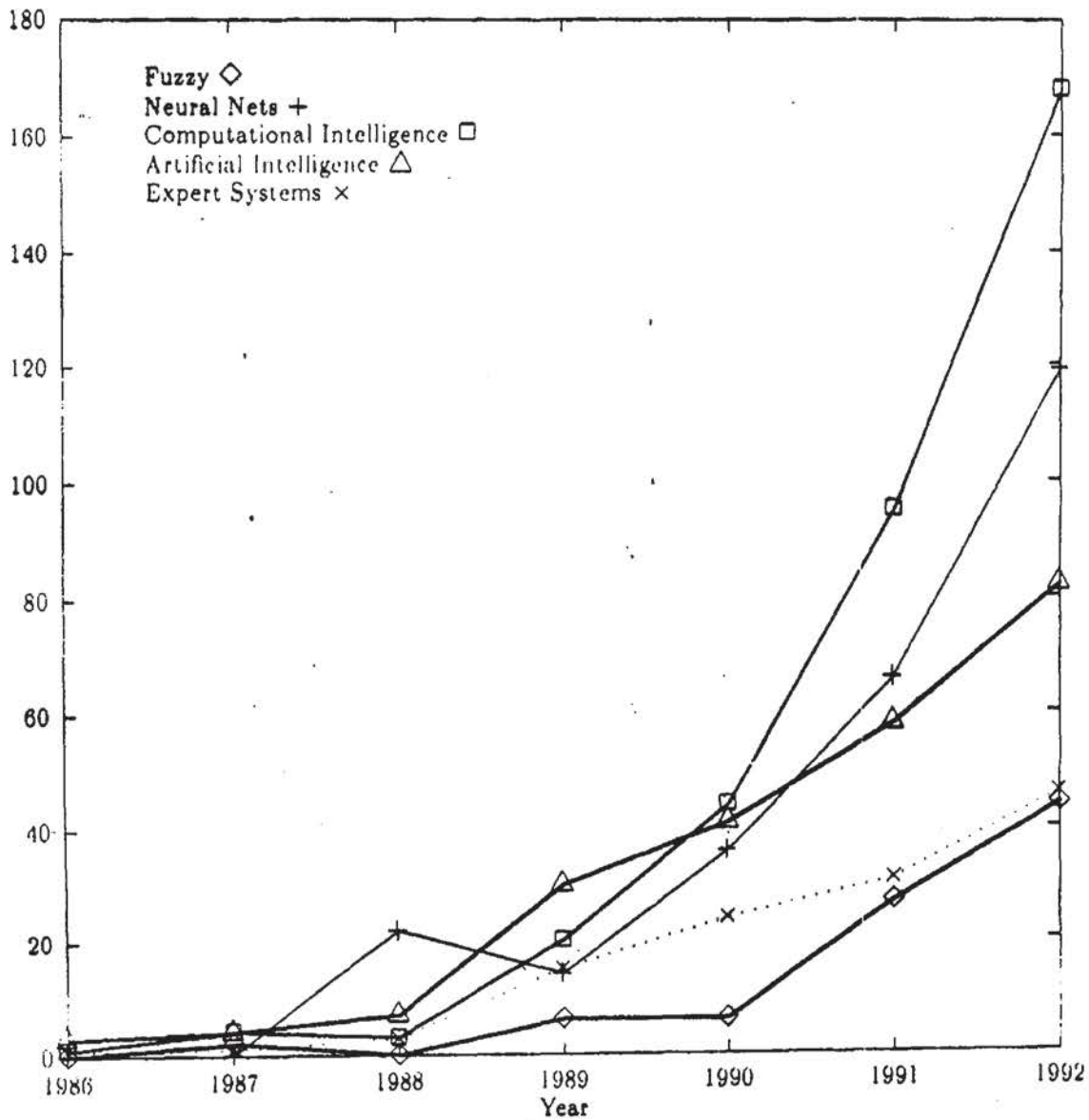


FIG 1

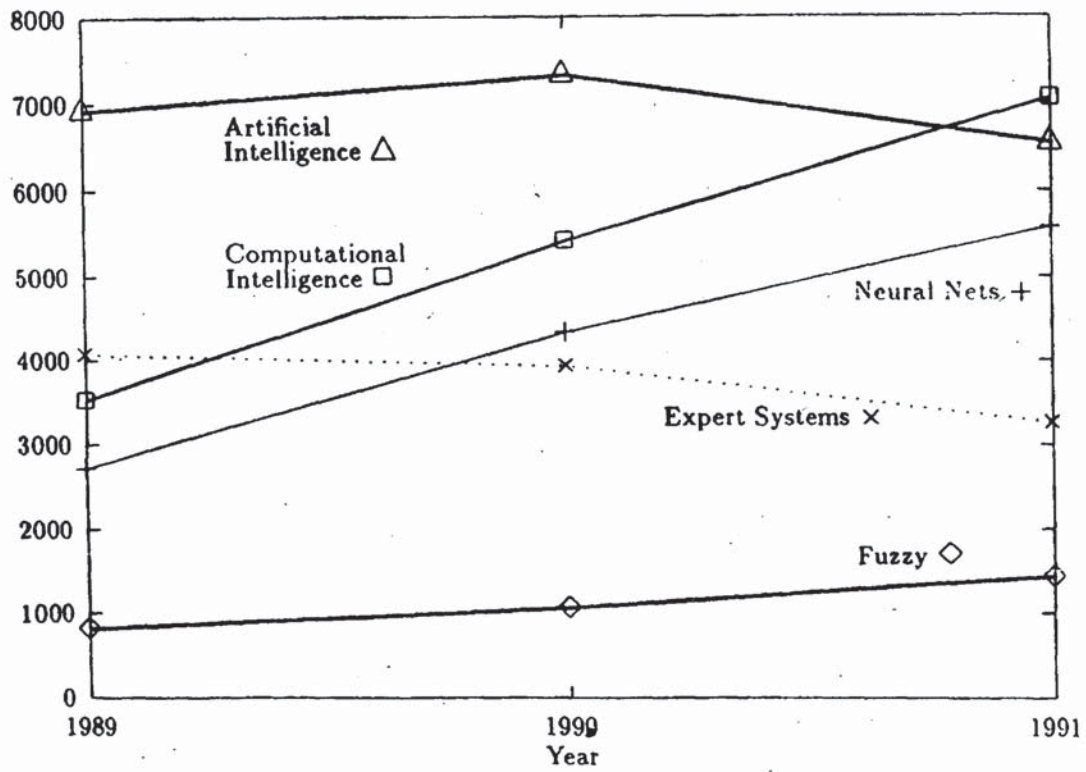


Figure 2

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TNN Projection

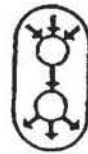
| CASH FLOW | | | | | | | | | | | | |
|--------------------|--------|-------|--------|----------------------------------|--------|--------|--------|--------|--------|-------|--------|-------|
| | 90 | 90 | 91 | 91 | 92 | 92 | 93 | 93 | 94 | 94 | 95 | 95 |
| | Income | Count | Income | Count | Income | Count | Income | Count | Income | Count | Income | Count |
| Pages | | 328 | | 640 | | 1076 | | 1300 | | 1300 | | 1608 |
| Member | 54.4 | 5940 | 62.8 | 6700 | 80.3 | 7093 | 82.7 | 7341 | 101.4 | 7500 | 142.5 | 7500 |
| Non-Member | 13.4 | 101 | 29.7 | 376 | 44.7 | 465 | 60.0 | 533 | 74.3 | 550 | 119.3 | 450 |
| All Trans | 39.2 | | 45.1 | | 51.6 | | 62.5 | | 62.5 | | 104.5 | |
| Other | 24.4 | | 32.0 | | 50.4 | | 44.0 | | 44.0 | | 62.7 | |
| Total | 131.4 | 5940 | 169.6 | 376 | 227.0 | 7558 | 249.2 | 7874 | 282.2 | 8050 | 429.0 | 7950 |
| COST PER PAGE | | | | | | | | | | | | |
| | COST | PAGES | CST/PG | PERCENTAGE OF INCOME BY CATEGORY | | | | | | | | |
| 1990 | 92.9 | 328 | 283.23 | | | | | | | | | |
| 1991 | 156.8 | 640 | 245.00 | | | MEM | NONM | ATRAN | OTHER | TOTAL | | |
| 1992 | 247.2 | 1076 | 229.74 | | 1990 | 0.41 | 0.10 | 0.30 | 0.19 | 1.00 | | |
| 1993 | 258.0 | 1300 | 198.46 | | 1991 | 0.37 | 0.18 | 0.27 | 0.19 | 1.00 | | |
| 1994 | 273.0 | 1300 | 210.00 | | 1992 | 0.35 | 0.20 | 0.23 | 0.22 | 1.00 | | |
| 1995 | 361.8 | 1608 | 225.00 | | 1993 | 0.33 | 0.24 | 0.25 | 0.18 | 1.00 | | |
| 1996 | 394.0 | 1608 | 245.00 | | 1994 | 0.31 | 0.26 | 0.25 | 0.18 | 1.00 | | |
| 1997 | 426.1 | 1608 | 265.00 | | 1995 | 0.30 | 0.27 | 0.25 | 0.18 | 1.00 | | |
| 1998 | 466.3 | 1608 | 290.00 | | | | | | | | | |
| SUBSCRIPTION RATES | | | | | | | | | | | | |
| | INCOM | EXPNS | SRPLS | PAGES | Mem | ActMem | NonMem | NM Act | | | | |
| 1990 | 131.4 | 92.9 | 38.5 | 328 | 10.00 | 9.16 | 75.00 | 132.67 | | | | |
| 1991 | 169.6 | 156.8 | 12.8 | 640 | 10.00 | 9.37 | 75.00 | 78.99 | | | | |
| 1992 | 227.0 | 247.2 | -20.2 | 1076 | 12.00 | 11.32 | 95.00 | 96.13 | | | | |
| 1993 | 254.2 | 258.0 | -3.8 | 1300 | 12.00 | 11.27 | 114.00 | 112.57 | | | | |
| 1994 | 282.2 | 270.9 | 11.3 | 1300 | 14.00 | 13.30 | 137.00 | 135.09 | | | | |
| 1995 | 429.0 | 418.1 | 10.9 | 1608 | 20.00 | 19.00 | 300.00 | 265.00 | | | | |
| 1996 | 474.6 | 442.2 | 32.4 | 1608 | 22.00 | 20.90 | 325.00 | 292.50 | | | | |
| 1997 | 518.4 | 466.3 | 52.1 | 1608 | 24.00 | 22.80 | 350.00 | 315.00 | | | | |
| 1998 | 566.8 | 498.5 | 68.3 | 1608 | 26.00 | 24.70 | 375.00 | 337.50 | | | | |

Tab #5
NNC Item V.A.2
January 1993

Approval of New TNN Associate Editors



TRANSACTIONS ON NEURAL NETWORKS
NEURAL NETWORKS COUNCIL



Robert J. Marks II, Ph.D.
Editor-in-Chief

PLEASE REPLY TO:
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Fax: (206) 543-3842
E-mail: marks@milton.u.washington.edu

December 16, 1993

Patrick K. Simpson, President-Elect
IEEE Neural Networks Council
ORINCON Corporation
9363 Towne Centre Drive
San Diego, CA 92121

I hereby request AdCom approval of the following new Associate Editors for the IEEE Transactions on Neural Networks.

Anil K. Jain
Michigan State University
A714 Wells Hall
East Lansing, Michigan 48824-1027
517 353 5150
FAX 517 338 1061

Michael J. Healy
Computer Services Division
The Boeing Company
PO Box 24346
Mail Stop 7L-22
Seattle, WA 98124-0346

Dr. Alexander G. Parlos
Dept. of Nuclear Engineering
Texas A & M University
College Station, TX 77843

Dr. Sigeru Omatu
Department of Information
Science & Intelligent Systems
University of Tokushima
Tokushima, JAPAN

Dr. V. David Sánchez A.
German Aerospace Research Establishment
(DLR Oberpfaffenhofen)
Institute for Robotics & Syst Dynamics
W-8031 Wessling, Germany

Dr. Stanislaw H. Zak
Purdue University
School of Electrical Engineering
1285 Electrical Engineering Bldg
West Lafayette, IN 47907-1285

Sincerely,

A handwritten signature in black ink, appearing to read 'Robert J. Marks II'.

Robert J. Marks, Editor-in-Chief
IEEE Transactions on Neural Networks

Date: Fri, 3 Dec 93 14:24:44 EST
From: roz@relito.medeng.wfu.edu (Rosalyn Snyder)
To: rce%rtifs2@rtifs2.rti.org
Subject: Re: CoNNections
Cc: c.robinson@ieee.org, xm8@sdcc12.ucsd.edu

The big problem here is the time. However a quick rundown of the costs, based on the IEEE financial report for February is that four additional pages would cost an additional \$2240, including postage and everything.

| Cost Estimat | From Feb93 | +4pp |
|--------------|------------|------|
| paper | 800 | 200 |
| camera work | 80 | 20 |
| press work | 1400 | 700 |
| mailing | 800 | 0 |
| label prep | 400 | 0 |
| us postage | 700 | 100 |
| non us posta | 2400 | 600 |
| ed fee | 2480 | 620 |
| | 9060 | 2240 |

Re newsletters in general,

Pat has asked me to come up with a budget for 2 8-page issues per year. Since I had the spread sheet out anyway, here this is. You will note on both the above figures and the following, some numbers don't scale. The US non-profit rate is bason the number of pieces plus the total weight, I don't have the rate sheet, but the IEEE guy told me that the US postage wouldn't vary as long as your per piece size is under about 30 pp. The international, which is a very big bite, also works on a formula, but the weight is much more important.

We could save about 150 by dropping the color and switching to a lighter, non-coated stock.

Cost Estimat 8 pp newsletter

| | |
|--------------|------|
| paper | 400 |
| camera work | 50 |
| press work | 900 |
| mailing | 800 |
| label prep | 400 |
| us postage | 700 |
| non us posta | 1800 |
| ed fee | 1320 |

Per issue 6370

roz

A: Theory
B: Implementation * Applications

Neural Networks 1993 Ad Revenue

| September 93 Issue | Billed | Status |
|---------------------|-----------------|----------------|
| Korn 1/4 | 375.00 | pd |
| MIT Press page | 1,000.00 | outstanding |
| July93 Korn 1/4 | 375.00 | pd June3 '93 |
| February/March 93 | | |
| MIT Press Full Page | 1,000.00 | pd 510* |
| CBMS | 240.00 | outstanding |
| 1992 rec'd in 93 | | |
| RNNS | 2,000.00 | pd April 15 93 |
| <i>Total</i> | <i>4,990.00</i> | |

*In going over the files, realized that we had billed them for a half page instead of the full page ad they ordered and we ran. I have sent them a letter and corrected invoice. Sent all checks rec'd to the IEEE.

Ad Rates

| | 1 | 2 | 3 | 4 |
|--------|------|-----|-----|-----|
| Full1 | 1050 | 995 | 980 | 975 |
| Half | 630 | 600 | 595 | 575 |
| Third | 420 | 380 | 365 | 380 |
| Fourth | 340 | 315 | 315 | 260 |
| Sixth | 265 | 250 | 220 | 210 |

Classified:(per column inch) 50

1994 Budget Options

| | 8 page | 16 page |
|---|----------|---------|
| Paper | \$ 420 | \$ 840 |
| Printing | 840 | 1470 |
| Camera Work | 120 | 150 |
| Mailing | 800 | 800 |
| Labels | 400 | 400 |
| Ed fee (editing, typesetting, advertising) | 1280 | 2560 |
| Ed expenses (Postage, Phone) | 30 | 40 |
| US postage | 685 | 735 |
| Foreign Postage | 1890 | 2625 |
| | | |
| Per issue | 6465 | 9620 |
| | | |
| 2/year | 12930 | 19240 |
| 4/year | 25860 | 38480 |
| | | |
| Man. Ed. Travel | 800 | 800 |
| | | |
| Total Annual Budget Options | | |
| 2 8-page issues | \$ 13730 | |
| 2 16 page issues | \$ 20040 | |
| 4 8 page issues | \$ 26660 | |
| 4 16 page issue | \$ 39280 | |

Note: Because we run less than 10000 we can increase the size in increments of 4 pages without paper wastage.

Mailing and labels are constant figures. US postage is almost constant, since it is heavily weighted "per piece." These figures assume a slightly lighter, uncoated stock and no color.

An ad solicitation letter has been sent out to approximately 40 vendors.

Tab #9
NNC Item VI.D.1
January 1993

Minutes of the NNC Meetings Committee

James C. Bezdek

Computer Science
Univ. of West Florida
Pensacola, FL 32514

Tel. (904) 474-2784
Fax. (904) 474-3023
jbezdek@uwf.bitnet



Pat Simpson, President
IEEE Neural Networks Council
Orincon Corporation
9363 Towne Center Drive
San Diego, CA 92121

Attached : The active MINUTES OF THE IEEE NEURAL NETWORK COUNCIL (NNC) MEETINGS COMMITTEE. I have recorded the dollar obligations that were approved for the various conferences in the Actions column. However, this does not mean that ADCOM approved them. I think we need to have a new, separate table appended to and in the ADCOM minutes that shows financial obligations approved by ADCOM, so that we can quickly see how much money the NNC is on the hook for at any time. As president, you can simply ask the recording secretary to do it this way.

Respectfully submitted,

Jim Bezdek

Jim Bezdek, Chair
NNC Meetings Committee

cc: members of the meetings committee (Karplus, Newcomb, Nutter, Eberhart)

1993 IEEE Neural Networks Council Document
 Robert J. Marks II Library Archive

| | In Attendance | Location : Sheraton Hotel, Seattle, Sept. 18, 1993 | Email Address |
|----|---------------------------|---|--------------------------------|
| 1 | Jim Bezdek, Chair (voter) | NNC Meetings Committee, Chair | jbezdek@ai.uwf.edu |
| 2 | Walter Karplus (voter) | NNC Adcom | karplus@cs.ucla.edu |
| 3 | Bob Newcomb (voter) | NNC Adcom | newcomb@eng.umd.edu |
| 4 | Roy Nutter (voter) | NNC Treasurer | rsn@eca.wvu.edu |
| 5 | Russ Eberhart (voter) | President, IEEE NNC | rce@rti.rti.org |
| 6 | Pat Simpson | VP, IEEE NNC and Chair, 1997 WCCI, San Diego | xm8@ |
| 7 | Bob Marks | Editor, Trans. NN | marks@u.washington.edu |
| 8 | Enrique Ruspini | FUZZ-IEEE '93, ICNN '93 | ruspini@ai.sri.com |
| 9 | Harry Murphy | Cal State/Northridge : NNC forum on VR and Disabled Persons | vr@vax.csun.edu |
| 10 | Charles Robinson | Chair, 1994 WCCI, Orlando | c.robinson@ieee.org |
| 11 | Scott Matthews | CIFE Organizing Committee Chair | |
| 12 | David Mizell | General Chair, 1994 VRAIS | mizell@boeing.com |
| 13 | Steve Marlin | Meeting Management | 70750.345@compuserve.com |
| 14 | Karen Haines | NNC Adcom | haines@sdcd2.ucsd.edu |
| 15 | Tom Caudell | Program chair, 1993 VRAIS | tpc@chama.eece.unm.edu |
| 16 | Toshio Fukuda | Secretary, NNC | d43131a@nucc.cc.nagoya-u.ac.jp |
| 17 | Jacek Zurada | General chair, WCCI symposium | JMZURA02@ULKYVX.LOUISVILLE.ED |
| 18 | Dorota Kieronska | ICNN '95 and EC, Perth | |
| 19 | S. Laxaruarayan | Finance director, WCCI '94 | swamy@umdnj.edu |
| 20 | Ratan Guha | Operations director, WCCI '94 | guha@cs.ucf.edu |
| 21 | Dennis Ruck | Program chair, ICNN, 1994 | druck@afit.af.mil |
| 22 | Z. Michaeliwicz | General chair, EC, 1994 | zbyszek@mosiac.uncc.edu |
| 23 | S. Kartolopoulos | NNC Adcom, Pub. committee chair | svk@hotld.att.com |
| 24 | P. Bonissone | General chair, FUZZ-IEEE, 1994 | bonissone@crd.ge.com |

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| ITEM of BUSINESS | CURRENT STATUS & NOTES | ACTIONS OF THE NNC MEETINGS COMMITTEE |
|---|---|--|
| <p>----- June 6, 1992 ----- NNC guidelines for contractual services offered by conference management firms (Bezdek)</p> <p>----- Dec. 5, 1992 -----</p> <p>----- March 27, 1993 -----</p> <p>----- Sept. 18, 1993 -----</p> <p>----- Jan. 22, 1994 -----</p> | <p>Pat Simpson agreed to take a first cut at drafting guidelines for all NNC sponsored conferences, one part of which details requirements for contractual services offered to the NNC by conference management firms.</p> <p>No discussion of this item at the December meeting.</p> <p>Pat is waiting for an electronic template from the IEEE.</p> <p>Simpson requested \$400 for secretarial help on the project.</p> | <p><i>Motion</i> : \$400 to Simpson for secretarial support.</p> <p><i>Approved.</i></p> |
| <p>June 6, 1992</p> <p>----- June 6, 1992 -----</p> <p>----- Dec. 5, 1992 -----</p> <p>----- March 27, 1993 -----</p> <p>----- Sept. 18, 1993 -----</p> <p>----- Jan. 22, 1994 -----</p> | <p>GA/NN Forum, Baltimore</p> <p>Roughly 82 paid attendees, probably will be a surplus situation. No action required. Status Report : (R. Eberhart)</p> <p>Eberhart reported that there will be a surplus of about \$ 1-2 K</p> <p>No report.</p> <p>Eberhart stated that the meeting was considered closed. However, the IEEE needs a final report. It will be prepared by Dave Schaffer, ds1@philabs.philips.com</p> <p style="text-align: center;">Need Closure Report</p> | |

| | | |
|--|--|---|
| <p>Nov. 3-9, 1992</p> <p>----- June 6, 1992 -----</p> <p>----- Dec. 5, 1992 -----</p> <p>----- March 27, 1993 -----</p> <p>----- Sept. 18, 1993 -----</p> <p>----- Jan. 22, 1994 -----</p> | <p>IJCNN, Beijing, PRC</p> <p>400 papers from inside China have been accepted. INNS has not approved cooperation. Meeting to be held at the Continental Grand Hotel. Status Report : (Eberhart)</p> <p>Academic success. Too early to estimate financial situation. Status Report : (Eberhart)</p> <p>No report made on this meeting in March.</p> <p>Eberhart stated that a final report is pending.</p> <p style="text-align: center;">Need Closure Report</p> | |
| <p>March 28- April 1, 1993</p> <p>----- June 6, 1992 -----</p> <p>----- Dec. 5, 1992 -----</p> <p>----- March 27, 1993 -----</p> <p>----- Sept. 18, 1993 -----</p> <p>----- Jan. 22, 1994 -----</p> | <p>FUZZ-IEEE '93/ICNN, San Francisco, CA</p> <p>Ruspini gave a status report. All contracts have been signed, everything looks pretty good. Requested : \$50 additional seed money. IEEE needs a formal conference formpak completed for ICNN portion - Eberhart to request formpak from Sensi for Ruspini.</p> <p>Ruspini gave a status report. Everything seems to be on schedule. Request for help with CD ROM problems. Request for an additional \$ 15 K seed money.</p> <p>Ruspini gave a status report on all areas of the conference. Everything is fine; about 1200 attendees are expected, 1000 are pre registered. Tutorial income will probably be 1/2 of estimated figure.</p> <p>Ruspini gave a status report. CD ROMs were a big financial loser. Proceeds will be about \$190K. \$150K has been forwarded to NNC already. Final report will be submitted at the next meeting.</p> <p style="text-align: center;">Need Closure Report</p> | <p><i>Motion</i> : \$ 50K seed to Ruspini : Approved.</p> <p><i>Motion</i> : Approve budget, pp. 35-38, NNC ADCOM handbook for June 6,7, 1992. Approved.</p> <p><i>Motion</i> : \$15K additional seed to Ruspini : Approved.</p> |

| Sept. 18-22, 1993 | VRAIS conference. Seattle, WA | |
|--------------------------------|--|---|
| ----- June 6, 1992 ----- | Caudell gave a short report on VRAIS '93, and then requested \$20K additional seed money. | Motion : \$20K seed to Caudell : Approved. |
| ----- Dec. 5, 1992 ----- | Due to an oversight, approval of the budget and seed money which was given by ADCOM in June, '92 did not get into the minutes. Requests to reapprove the budget and authorize 50K seed money (45K prior) were made by the finance chair, Dmitry Kaplan . | Motion : Approve budget, pp. 52-57, NNC ADCOM handbook for June, 1992. Approved. Motion : Additional 50K seed money for printing and mailing expenses. Approved. |
| ----- March 27, 1993 ----- | A revised estimate of attendees (to 610) and budget was submitted. Also, meeting management revised contract by \$5K decrease in letter dated 2/26/93. | Motion : Approve revised budget, p105, NNC ADCOM handbook for March, 1993. Approved. |
| ----- Sept. 18, 1993 ----- | Caudell gave an oral report. About 305 pre-registrants, about 350 tutorial registrants. Marks introduced a letter of request from Tom Furness that asked to waive registration fees for 22 students and 16 employees of the H.I.T. lab at UW. | Motion : Waiver of fees for 38 persons per Furness letter. Failed. Motion : The VWC grant of \$10K to VRAIS may be used to pay the requested fees of any person approved by the VWC until it is expended . Approved. |
| ----- Jan. 22, 1994 ----- | Need Closure Report | |
| October , 25 - 29, 1993 | IJCNN '93, Nagoya, Japan | |
| ----- June 6, 1992 ----- | Fukuda gave a status report. Fukuda/Amari request use of the name IJCNN. | Motion : Fukuda advance IJCNN as an alternative. If this is not palatable to the Japanese, the meetings committee defers resolution to the NNC Excom. Approved |
| ----- Dec. 5, 1992 ----- | No report at this meeting. | |
| ----- March 27, 1993 ----- | Fukuda gave a status report; everything is in order. | |
| ----- Sept. 18, 1993 ----- | Fukuda gave a status report; everything is in order. | |
| ----- Jan. 22, 1994 ----- | Need Closure Report | |

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| <p>June 9-10, 1994</p> | <p>NNC forum : VR and Persons with Disabilities San Francisco</p> | |
| <p>Sept. 18, 1993</p> | <p>Harry Murphy presented a proposal requesting co-sponsorship of an NNC forum, the 1994 IEEE NNC Forum on Virtual Reality and Persons with Disabilities. Profits or losses will be shared on a 50-50 basis, and the seed money requested was \$5K.</p> <p>Harry Murphy, GC CSUN Center on Disabilities Cal State University 18111 Nordhoff St. Northridge, CA 91330 vfoao073@vax.csun.edu</p> | <p><i>Motion</i> : Appoint H. Murphy GC. Approved.</p> <p><i>Motion</i>: Approve budget as submitted, including 5K seed money. Approved.</p> <p><i>Motion</i> : Put on consent agenda of ADCOM. Approved.</p> |
| <p>Jan. 22, 1994</p> | <p>Approved in consent agenda by ADCOM</p> <p style="text-align: center;">Need Final Budget to IEEE</p> | |

| June 24 - July 1, 1994 | 1994 WCCI, Orlando : FUZZ-IEEE , ICNN, EC | | |
|-------------------------------|--|--|---|
| June 6, 1992 | | | |
| Status Report : (C. Robinson) | <p>Dr. Piero Bonissone General Electric CR & D 1 River Road : KI-5C32A Schenectady, NY 12301</p> <p>Major Steve Rogers AFIT, School of Engineering Wright Patterson AFB Dayton, OH 45433</p> | <p>Dr. Z. Michalewicz Computer Science Dept. Univ. of North Carolina Charlotte, NC 28223</p> <p>Charles Robinson School of Health Univ. of Pittsburg Pittsburg, PA 15261</p> | <p>Motion : 3 tracks at the WCCI : Approved.</p> <p>GENERAL Chair, C. Robinson at [c.robinson@ieee.org],</p> <p>FUZZ-IEEE : GC = P. Bonissone PC = E. Ruspini ICNN : GC = S. Rogers PC = Dennis Ruck GA/EP : GC = Z. Michalewicz PC = TBD</p> |
| Dec. 5, 1992 | <p>C. Robinson submitted his resignation as chair, but agreed to serve as co-chair with Marks until a new chair could be found. Committee agreed to recommend J. Zurada. An organizational planning meeting will be held in Orlando on Jan. 9-10; Robinson requested additional 10K in seed money to pay for this meeting.</p> | | <p>Marks was asked if he could find a general chair for the VRAIS portion of the WCCI; he agreed. Motion : 10K seed money to Robinson for organizational meeting and other expenses. Approved.</p> |
| March 27, 1993 | <p>Robinson gave an extensive game plan and budget report. Action on budget was deferred to the ADCOM meeting.</p> | | |
| Sept. 18, 1993 | <p>Marlin said two days of meetings have it under control. Robinson introduced most players to the committee. Security in Orlando a current worry. Robinson introduced three requests, delineated in the next column in this row.</p> | | <p>Motion : Zurada's wife be considered for the position of Admin. Assistant for WCCI, per letter from Zurada. Approved.</p> <p>Motion: The Orlando section of the IEEE amend their previous budget commitment to the WCCI (P. 118, ADCOM book, this meeting) so that they would receive 5% of any surplus, but in the event of loss, would not be liable for 5% of the loss. Failed.</p> <p>Motion : 12 officers of the WCCI be granted registration fee waivers at WCCI. Failed.</p> |
| Jan. 22, 1994 | | | |

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| <p>Oct. 16-19, 1994</p> <hr/> <p>Jan. 9, 1993 (Orlando WCCI Minutes)</p> <hr/> <p>March 27, 1993</p> <hr/> <p>Sept. 18, 1993</p> <hr/> <p>Jan. 22, 1994</p> | <p>VRAIS - 1994, Raleigh-Durham, NC</p> <p>The VR portion of the WCCI is removed from the 1994 congress, and a separate VR meeting is recommended. Need : Consent agenda approval for Trimble = General Chair.</p> <hr/> <p>Trimble indicated that the meeting would be in the period 15 Sept-15 Oct. He is seeking industry involvement and VR exhibits. PCs : B. Kenyon (US) and H. Hashimoro (Asia).</p> <hr/> <p>Trimble has resigned as chair. David Mizell is the new one. Budget for this meeting was approved by ADCOM in real time, with an amendment that reduced the seed money from \$40K to \$10K, delivery of seed money contingent upon approval by ExCom on or before October 15, 1993. Contract for hotel space is signed.</p> <hr/> <p style="text-align: center;">Need Final Budget to IEEE</p> | <hr/> <p>Motion : Preliminary budget submitted be approved. Approved. (ADCOM tabled to Seattle) Action Item: Appointment letter for Trimble (Eberhart)</p> <hr/> <p>David Mizell (206) 865-2705 Boeing Computer Services Fax(206) 865-2965 PO Box 24346 mizell@boeing.com Seattle, WA 98124</p> |
| <p>March 20-24, 1995</p> <hr/> <p>June 6, 1992</p> <hr/> <p>Dec. 5, 1992</p> <hr/> <p>March 27, 1993</p> <hr/> <p>Sept. 18, 1993</p> <hr/> <p>Jan. 22, 1994</p> | <p>FUZZ -IEEE (with IFES), Yokohama, Japan</p> <p>Disussion of proposal by Sugeno et. al., presented by Fukuda.</p> <hr/> <p>No report.</p> <hr/> <p>Prof. Terano gave a detailed plan for the meeting, and presented a preliminary budget.</p> <hr/> <p>Budget on p. 29 of current ADCOM book approved by ADCOM.</p> <hr/> <p style="text-align: center;">Need Final Budget to IEEE</p> | <hr/> <p>Motion :FUZZ-IEEE '95 be held in Yokohama, Japan, as a joint meeting with the LIFE meeting IFES, with M. Sugeno as General Chair, Hirota/Fukuda as co-PCs . Approved.</p> <hr/> <p>Motion : Approve budget as submitted. Approved. (ADCOM tabled to Seattle).</p> |

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| <p>April, 1995</p> <p>----- Sept. 18, 1993 -----</p> <p>----- Jan. 22, 1994 -----</p> | <p>CIFE, New York City</p> <p>Discussion of proposal presented by Scott Mathews, p. 129 of the current ADCOM book. Budget failed ADCOM, and revision was requested.</p> <p>-----</p> <p>Need : ADCOM approval of revised budget. No revision submitted for Jan. 22 meeting</p> | <p>-----</p> <p>Motion : Approve CIFE concept, and appoint Scott Matthews as chair of the OC. Approved.</p> <p>Motion : Approve budget with reduction in IEEE seed money to \$41K. Approved.</p> <p>-----</p> |
| <p>October 23-25, 1995</p> <p>----- June 6, 1992 -----</p> <p>----- Dec. 5, 1992 -----</p> <p>----- March 27, 1993 -----</p> <p>----- Sept. 18, 1993 -----</p> <p>----- Jan. 22, 1994 -----</p> | <p>ICNN, Perth, Australia</p> <p>Disussion of proposal presented by Y. Attikiouzel.</p> <p>-----</p> <p>Detailed budget presented to committee.</p> <p>-----</p> <p>ADCOM approved budget as shown on p. 33 of current ADCOM book, with seed money decreased from 50K to 35 K.</p> <p>-----</p> <p>Need Final Budget to IEEE</p> | <p>-----</p> <p>Motion: The 1995 ICNN be held in Perth, Australia, with Y. Attikiouzel as General Chair . Approved.</p> <p>-----</p> <p>Motion : Approve budget as submitted. Approved. (ADCOM tabled to Seattle).</p> <p>-----</p> |

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| <p>October 26-27, 1995</p> <p>----- Sept. 18, 1993 -----</p> <p>----- Jan. 22, 1994 -----</p> | <p>IEEE Int'l. Symp. on EC, Perth, Australia</p> <p>A proposal to hold an IEEE International Symposium on Evolutionary Computing with Yiannis Attikiouzel as General Chair was presented by Dorota Kieronska. The request was for NNC sponsorship, all profits or losses accruing to the NNC, with 10K seed money.</p> <p>ADCOM approved appointment, and allocated 5K seed money. Y.A. is directed to coordinate committee assignments with the newly created NNC T.C. on E.C.</p> <p style="text-align: center;">Need Final Budget to IEEE</p> | <p>----- Motion : Appoint Y. Attikiouzel GC. Approved.</p> <p>----- Motion : Approve budget as submitted, including 10K seed money. Approved.</p> <p>-----</p> |
| <p>June, 1996</p> <p>----- June 6, 1992 -----</p> <p>----- Dec. 5, 1992 -----</p> <p>----- March 27, 1993 -----</p> <p>----- Sept. 18, 1993 -----</p> <p>----- Jan. 22, 1994 -----</p> | <p>ICNN , Washington, D.C</p> <p>Bezdek to contact Perry Sensi about dealing with the Sheraton for the contract. Sensi was reluctant to enter the fray, because Meeting Management made initial contract.</p> <p>Steve Marlin reported that we have a contract in place. Need : General and Program chairs.</p> <p>No one has been identified as general chair for this conference; revisit the problem at our next committee meeting.</p> <p>Continued discussion of who to ask to run the meeting. Bezdek and Marks to make an effort to identify someone to approach. Marlin will check to see if this meeting could be held in 1995 instead of 1996.</p> <p style="text-align: center;">Need : GC / PC, Proposal, Budget</p> | <p>----- Motion : The NNC will hold an ICCN at the property in 1996, with GC/PC to be determined later. Approved.</p> <p>-----</p> <p>-----</p> <p>-----</p> <p>-----</p> |

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| <p>Sept. 7-11, 1996</p> <p>----- March 27, 1993 -----</p> <p>----- Sept. 18, 1993 -----</p> <p>----- Jan. 22, 1994 -----</p> | <p>FUZZ-IEEE '96, New Orleans</p> <p>----- Fred Petry presented a detailed proposal for meeting in New Orleans. -----</p> <p>----- ADCOM approved budget as shown on p. 135 of current ADCOM book. Hotel contract in the works, Russ needs to sign it. -----</p> <p style="text-align: center;">Need Final Budget to IEEE</p> | <p>----- Motion : Appoint Fred Petry as GC. <i>Approved.</i> Motion : Approve budget as submitted. <i>Approved.</i> (ADCOM tabled to Seattle). -----</p> |
| <p>Summer, 1997</p> <p>----- Dec. 5, 1992 -----</p> <p>----- March 27, 1993 -----</p> <p>----- Sept. 18, 1993 -----</p> <p>----- Jan. 22, 1994 -----</p> | <p>1997 WCCI, San Diego, CA</p> <p>----- Proposal from the San Diego section of the IEEE for hosting the next West Coast NNC sponsored meeting. Presented by P. Simpson. -----</p> <p>----- Bob Lobbia presented revised proposal and budget for the meeting. Seed money from San Diego local limited to \$30K total. -----</p> <p>----- ADCOM again tabled the budget request, p. 25, current ADCOM book. ADCOM passed a motion approving the San Diego IEEE local be given a 10% profit/loss agreement, incl. 10% seed money. -----</p> <p style="text-align: center;">Need : ADCOM budget approval</p> | <p>----- Recommended : P. Simpson will encourage the San Diego section to formulate and submit a revised proposal for the 1997 world congress, detailing their involvement. -----</p> <p>----- Motion : Approve budget as submitted. <i>Approved.</i> (ADCOM tabled to Seattle). -----</p> |
| <p>----- Jan. 22, 1994 -----</p> | <p><u>Other Actions of the meetings committee:</u></p> | <p>Motion : <i>Approved.</i></p> |
| | | |

Record of email transactions of the NNC Meetings Committee

| Date | Item of Business | Date and Action |
|---------|--|--|
| 1/11/93 | <p>Cooperating status for the FIRST BOSTON-AREA FUZZY LOGIC WORKSHOP, February 25, 1993, GTE Laboratories Waltham, MA. Request by Allen Bonde</p> <p>Allen Bonde, Chair Fuzzy Boston '93 GTE Government Systems Corp. 77 'A' Street Needham Heights, MA 02194 E-mail: abonde@gte.com (preferred) FAX: 617-455-5365</p> | <p>Eberhart, Karplus, Bezdek, Nutter = yes.</p> <p>Approved : 1/11/93</p> |
| 1/12/93 | <p>Cooperating status for the ICARCV'94, Third International Conference on Automation, Robotics and Computer Vision '94, 13 to 16 September 1994, Singapore. Request by M.Ang.</p> <p>Marcelo H. Ang Jr. Department of Mechanical and Production Engineering National University of Singapore Singapore 0511 Tel 65-772-2555 Fax 65-779-1459 e-mail: MPEANGH@NUSVM.bitnet</p> | <p>Karplus, Newcombe Nutter, Bezdek = yes.</p> <p>Approved : 2/5/93</p> |
| 2/6/93 | <p>Cooperating status for the ETFA'93, 2nd IEEE International Workshop on Emerging Technologies for Factory Automation Design and Operation of Intelligent Factories September 27-29, 1993, Palm Cove - Cairns, Australia</p> <p>Richard Zurawski, General Chairman Laboratory for Concurrent Computing Department of Electrical & Computer Swinburne University of Technology John Street, Melbourne 3122, Australia Phone +61 3 728 71 61 Fax +61 3 728 71 83 E-mail: rzz@stan.xx.swin.oz.au</p> | <p>Eberhart, Bezdek Karplus = yes. Nutter, Newcombe, Marks(advisory) = no.</p> <p>Approved : 2/8/93</p> |

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| 2/10/93 | <p>Request for technical co-sponsorship for the 1993 IEEE/Nagoya University WWW on Learning and Adaptive Systems, Oct. 22-23, 1993, Nagoya, Japan. (no money obligation). Request by T. Fukuda.</p> <p>Toshio Fukuda, General co-chair Dept of Mechano-Informatics and Systems Nagoya University Fruo-cho, Chikusa-ku, Nagoya 464-01, Japan Tel : 81-52-781-5111 x 4478 Fax : 81-52-781-9243</p> | <p>Bezdek, Eberhart, Karplus, Nutter, Newcomb = yes.</p> <p><i>Approved : 3/1/93</i></p> |
| 2/10/93 | <p>Technical co-sponsorship for the 1993 IEEE/Nagoya University WWW on Multiple and Distributed Robotic Systems, July 30-31, 1993, Nagoya, Japan. Request by T. Fukuda.</p> <p>Toshio Fukuda, General co-chair Dept of Mechano-Informatics and Systems Nagoya University Fruo-cho, Chikusa-ku, Nagoya 464-01, Japan Tel : 81-52-781-5111 x 4478 Fax : 81-52-781-9243</p> | <p>Bezdek, Eberhart, Karplus, Nutter, Newcomb = yes.</p> <p><i>Approved : 3/1/93</i></p> |
| 2/19/93 | <p>Request for ExCom to authorize the payment of up to \$5,000 in bills for the WCCI before we meet in San Francisco. Request made by Russ Eberhart</p> | |

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| 3/27/93 | <p>Cooperating Status for the 1993 International Symposium on Artificial Neural Networks December 20-22, 1993, Hainchu, Taiwan, ROC, Sponsored by National Chiao tung University General Co-chairs C.Y. Y Wu, NCTU and S.Y. JKung, Princeton University Program Co-chairs : H.C. Fu, NCTU and C.L. Wu, U-T Austin</p> | <i>Approved In Session</i> |
| | <p>Cooperating Status for the 1994 International Conference on Neuro-Science and Engineering (ICONSE) - '94). Seoul, Korea, Date unspecified. Conference Chair Prof. Y.B. Cho R&D Institute Hyosung Industries Co. 4, 5-Ka, Dangsan-Dong, Yeongduengpo-Ku Seoul, Korea</p> | <i>Approved In Session</i> |
| | <p>Cooperating Status for the 1994 International Conference on Neural Information Processing (ICONIP) - '94). Seoul, Korea, Oct. 17-20, 1994. Note: approved for Oct. 24-27 originally. Myung Won Kim, President, IEEE NNC, Korea</p> <p>Myung Won Kim, Ph.D. Research Department, Electronics & Telecommunications Research Institute P.O. Box 8, Daeduk Science Town Daejeon, Korea 305-606 Tel: +82-42-860-6856 Fax: +82-42-860-5033 mkim@logos.etri.re.kr</p> | <i>Approved In Session</i> |
| | <p>Cooperating Status for the 1994 ICANN Conference Chair P. Morasso</p> | <i>Approved In Session</i> |
| | <p>Technical Co-sponsorship for the 1994 RNNS Rostov on the Don, Conference Chair I. Witali</p> | <i>Approved In Session</i> |
| 4/19/93 | <p>Cooperating status for The Third International Conference on Industrial Applications of Fuzzy Control and Intelligent Systems (IFIS 93), December 1-3, 1993, Texas A&M, College Station, TX.</p> <p>Conference Chair: Reza Langari Dept. of Mechanical Engineering Texas A&M University College Station, TX 77843-3123 (409) 845-6918 Fax: (409) 862-2420 Email: langari@arya.tamu.edu</p> <p>Conference Co-Chair: John Yen Dept. of Computer Science Texas A&M University College Station, TX 77843-3112 (409) 845-5466 Fax: (409) 847-8578 Email: yen@cs.tamu.edu</p> | <p>Bezdek, Karplus Newcombe, Eberhart, = yes.</p> <p><i>Approved : 4/26/93</i></p> |

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| 6/8/93 | <p>Cooperating status for the International Symposium on Integrating Knowledge and Neural Heuristics, May 3-4 1994; Place: Clarion Hotel, Pensacola, FL.</p> <p>Symposium Chairs:</p> <p>Dr. LiMin Fu fu@cis.ufl.edu, (904)392-1485 Dept. of CIS, 301 CSE, University of Florida Gainesville, FL 32611</p> <p>Dr. Chris Lacher lacher@cs.fsu.edu, Dept. of CS Florida State University Tallahassee, FL</p> | <p>Bezdek, Karplus, Eberhart, = yes.</p> <p>Approved : 6/9/93</p> |
| 7/23/93 | <p>Cooperating status for the 3rd Int'l Conference on Fuzzy Logic, Neural Nets and Soft Computing, August 1-7, 1994, Iizuka, Japan.</p> <p>T. Yamakawa, OC Kyushu Inst. of Technology Iizuka, Japan</p> | <p>Bezdek, Nutter, Eberhart, Karplus = Yes.</p> <p>Approved: December 15, 1993</p> |
| 9/18/93 | <p>Technical cosponsorship for the 1994 IEEE/Nagoya University WWW on Fuzzy Logic and Neural Networks/Genetic Algorithms, Aug. 9-10, 1994, Nagoya, request by T. Furuhashi, General Chair, p. 111, current book.</p> <p>Takeshi Furuhashi Dept. of Information Electronics Nagoya University Furo-cho, Chikusa-ku Nagoya, 464-01, Japan</p> <hr/> <p>Technical cosponsorship for the IEEE/Tsukuba Int'l Workshop on Advanced Robotics, Nov. 8-9, 1993, AIST Tsukuba Research Center, Ibaraki, Japan request by T. Fukuda. p. 105, current book.</p> <p>Kazuo Tani, Chair Mech. Engineering Lab Namiki, Tsukuba, Ibaraki 305 Japan</p> | <p>Approved In Session</p> <hr/> <p>Approved In Session</p> |
| 10/7/93 | <p>Cooperating status for the 1994 IEEE workshop on NNs for SP, Sept. 6-8, 1994, Ermioni, Greece.</p> <p>Jenq-Neng Hwang, Program Committee Chair, NNSP'94</p> <p>Jenq-Neng Hwang Internet: hwang@ee.washington.edu Dept. of EE, FT-10 Phone: (206) 685-1603 University of Washington Fax: (206) 543-3842 Seattle, WA 98195</p> | <p>bez = yes</p> |

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| 10/10/93 | Cooperating status for 1995 CIFE, Computational Intelligence for Financial Engineering , April 9-12, 1995, co-sponsored by the IAFE (International Association of Financial Engineers, by Scott Matthews, Organizing chair. | eberhart, bez = yes |
| 10/22/93 | Cooperating status for International Conference on Evolutionary Computation (Parallel Problem Solving from Nature III) by the program co-chair : Prof. Dr. Reinhard Maenner Tel: +49-621-292-5758 (office) Lehrstuhl fuer Informatik V +49-621-292-5757 (secr., 8:30-12:30) Universitaet Mannheim Fax: +49-621-292-5756 D-68131 Mannheim maenner@mp-sun1.informatik.uni-mannheim.de Germany | eberhart, nutter, karplus, bezdek = yes. Approved : 11/1/93 |
| 12/9/93 | Cooperating status for 5 WNN/FNN meetings by Mary Lou Padgett <mpadgett@Eng.Auburn.EDU> WNN/FNN94 Washington DC was originally slated for the second week in November, but due to popular request is being moved to the second week in December. Hotels under consideration: Keybridge Marriott and Holiday Inn Dalgren. WNN/FNN95 NASA/JSC scheduled for the fall time frame, probably also the second week in December. Hotel under consideration: Hilton outside of NASA/JSC. Future meetings requested by WNN participants, but not yet submitted to NASA (should be just a formality to continue the agreements): WNN/FNN96 NASA/Lewis Wright Patterson AFB area scheduled for spring time frame WNN/FNN96 LLNL (Lawrence Livermore National Labs) scheduled for fall time frame WNN/FNN97 Orlando and Kennedy Space Center scheduled for spring time frame | Approved : Bezdek, Eberhart, |
| 12/9/93 | Cooperating status for the SPIE, SCS and ACM for WCCI, as initiated by M.L. Padgett. | Yes = Newcomb, Bezdek, Eberhart Approved: 12/10/93 |
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Tab #9
NNC Item VI.D.2
January 1993

Summary of Final Reports Received by IEEE



IEEE TECHNICAL ACTIVITIES

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.
445 HOES LANE, P. O. BOX 1331, PISCATAWAY, NJ 08855-1331, U.S.A. (908) 562-3900 TELEX 833-233 FAX (908) 562-1571

(908) 562-

December 1, 1993

Mr. Patrick K. Simpson
Orincon Corpotation
9363 Towne Centre Dr.
San Diego, CA 92121

Dear Mr. Simpson:

Enclosed, please find the Final Financial Reports for the following Neural Network Conferences per my email I sent to you on December 1:

| | |
|------------------|--|
| 1988 - San Diego | final report attached |
| 1989 - DC | final report attached |
| 1990 - San Diego | final report attached |
| 1990 - DC | no final report INNS was lead sponsor |
| 1991 - Seattle | final report attached |
| 1991 - Singapore | final report attached |
| 1992 - Baltimore | final report attached |
| 1992 - Beijing | no final received |

If you have any further questions, please feel free to contact Mary Ann DeWald at (908) 562-3873, or FAX (908) 562-1571.

Sincerely,

A handwritten signature in cursive script that reads "Joann Foley".

Joann Foley
Secretary
Conference Services Dept.

Date: Thu, 16 Dec 1993 11:27:12
From: mdewald@tab.ieee.org (Mary Ann Dewald)
To: jbezdek@picayune.coginst.uwf.edu
Subject: Re: budgets
Cc: p.simpson@ieee.org

Jim,

The answers are in CAPS.

Let me know if you need additional information.

Happy Holidays,
Mary Ann

Re : budgets approved. First, I note that I do not have complete records of ADCOM approval. Those should be in the ADCOM minutes which you have, but I have not seen. I did try to record what I think is the current status of these, but I am presenting them during ADCOM, and I assume the ADCOM secretary is recording the exact details. Is this not so? I will query Mary Anne about each of the ones you mentioned:

Mary Anne DeWald : Please tell Pat Simpson and I (Bezdek) which, if any, of the following budgets, which have been fully approved by the NNC ADCOM, have been submitted to you. I have indicated the person that should be sending them by last name:

June 9-10, 1994 NNC forum : VR and Persons with Disabilities, Northridge, Murphy - NO INFORMATION ON THIS

June 24 - July 1, 1994 , WCCI '94, Orlando, Robinson - WE HAVE THE BUDGET BUT NEED SOCIETY AND SECTION APPROVAL.

Oct. 16-19, 1994 , VRAIS - 1994, Raleigh-Durham, NC -- Pat, this was conditional . See my minutes. - NO INFORMATION RECEIVED ON THIS

March 20-24, 1995, FUZZ ' 95, Japan, Fukuda - NO INFORMATION RECEIVED

October 23-25 , 1995 CNN , Perth, Australia, Attikiouzel - WE HAVE A BUDGET AND NO OTHER INFORMATION.

Pat : These Need ADCOM approval, as shown in my minutes:

April, 1995, CIFE, New York City, Scott Mathews has not submitted a revised budget to me.

October 26-27, 1995, IEEE Int'l. Symp. on EC, Perth, Australia. My notes do not show ADCOM approval, but I think this budget was approved by ADCOM. Do the ADCOM minutes show it?.

I have no record of a VR for 1995.

Most cordially,

Jim Bezdek
Computer Science Dept.
Univ. of West Florida

Tab #9
NNC Item VI.D.3
January 1993

IJCNN 91 SINGAPORE FINAL REPORT



7 September 1993

Dr J Vittale
Director, Conference Support Services
IEEE Conference Services
445 Hoes Lane PO Box 1331
Piscataway
NJ 08855-1331
USA

Dear Dr Vittale

Attached are the closing accounts for IJCNN 91 Singapore.

2 Please note that all amounts are in Singapore Dollars and the conversion is US\$1=S\$1.61 (as of 31 August 1993).

3 The balance due to the NNC amounting to S\$5345.42 will be remitted to IEEE Conference Services in two weeks.

Thank you.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Teck-Seng Low', written over a horizontal line.

DR TECK-SENG LOW
Director

cc Prof James C Bezdek





CUSTOMER'S COPY
客户的副本

BANK REF:
本行编号

PLEASE TYPE OR WRITE IN BLOCK LETTERS
填写时请用大写字体

| | | | |
|--|--|--|--|
| APPLICATION FOR 兹申请 <input type="checkbox"/> DEMAND DRAFT 即期汇票 <input type="checkbox"/> TRAVELLERS CHEQUES 旅行支票 <input type="checkbox"/> OTHERS 其他 <input checked="" type="checkbox"/> TELEGRAPHIC TRANSFER 电汇 VALUE DATE 价值日期 <u>JANUARY 4, 1993</u> | | <input type="checkbox"/> HOLD CHEQUE/DRAFT I WILL COLLECT 请将支票/汇票留住, 本人将前往领取: <input type="checkbox"/> SEND CHEQUE/DRAFT BY REGISTERED MAIL TO: 请通过挂号邮件方式, 将支票/汇票寄给: <input type="checkbox"/> ME 本人 <input type="checkbox"/> BENEFICIARY 收款人 | |
| IN PAYMENT OF MY/OUR APPLICATION 本人/我们申请时之付款方式 <input checked="" type="checkbox"/> DEBIT MY/OUR ACCOUNT NO : 32-03154-4 请从本人/我们的户口中扣账, 户口号码是: <input type="checkbox"/> CASH 现款 <input type="checkbox"/> ENCLOSED CHEQUE NO 附上支票, 号码是: <input type="checkbox"/> OTHERS 其他 | | CURRENCY OF REMITTANCE 汇款之货币 US\$ / 2700.27 AMOUNT OF REMITTANCE 汇款额 RATE 汇率 1.662 EQUIVALENT 等值 2257.62 CHARGES: 收费 COMMISSION \$ 佣金 26.57 POSTAGE/TELEX \$ 邮费/用户直通电报 10.00 TOTAL 合计 S\$21,298.00 | |

| | |
|--|--|
| NAME & ADDRESS (STREET, CITY, STATE & COUNTRY) OF BENEFICIARY 收款人的姓名与地址(街名、城市、州名和国家) THE INSTITUTE OF ELECTRICAL & ELECTRONICS ENGINEERS, INC 445 HOES LANE PO BOX 1331, PISCATAWAY, NJ 08855-1331, USA ACCOUNT NO (IF ANY): 1130673841 户口号码(若有) | NAME & ADDRESS (STREET, CITY, STATE & COUNTRY) OF BENEFICIARY'S BANK (IF ANY) 收款人的银行之名称和地址(街名、城市、州名和国家):(若有) FIRST NATIONAL STATE BANK NJ EXECUTIVE BRANCH NEW JERSEY, USA |
|--|--|

| | |
|---|---|
| NAME & ADDRESS OF APPLICANT 申请人的姓名与地址 IEEE IJCNN 91 SINGAPORE 200 JALAN SULTAN #11-03 SINGAPORE 0719 TEL NO: 电话号码 | MESSAGE TO ACCOMPANY PAYMENT (FOR TT ONLY. MAX 70 CHARACTERS) 附款时之附带寄语(只限电汇, 最多70个字母) FIRST RETURN OF SEEDMONEY |
|---|---|

INSTRUCTIONS FOR DBS BANK ONLY (FX CONTRACT NO, RATE, DEALER'S NAME, ETC.)
 只对新加坡发展银行发出的指示(外汇合同号码、汇率、交易商姓名等)。

BANKS' CHARGES OUTSIDE SINGAPORE ARE FOR BENEFICIARY'S ACCOUNT UNLESS SPECIFIED HERE AS FOR APPLICANT'S ACCOUNT (SEE PARA 7 OVERLEAF)
 除非这里特别注明从申请者的账户中扣除, 否则, 新加坡以外的银行收费, 将从收款人的账户中扣除(请看背页第七段)

FOR MY/OUR ACCOUNT AND RISK WITHOUT ANY RESPONSIBILITY OR LIABILITY TO YOURSELVES AND SUBJECT TO THE CONDITIONS OUTLINED ON THE REVERSE WHICH I/WE HAVE READ AND UNDERSTOOD, PLEASE EFFECT THIS TRANSACTION AS DETAILED ABOVE
 这项申请, 关系到本人/我们的账户, 风险由本人/我们承担, 贵行不必负起任何责任或债务。本人/我们已阅读过(同时也了解)背页所列出的条件, 并愿意受这些条件的约束。请依据上述详情, 即行处理。

JANUARY 4, 1993
 DATE 日期

APPLICANT'S AUTHORIZED SIGNATURE (S) & COMPANY'S STAMP (IF APPLICABLE)
 申请者的授权签名式和公司印章(若有)



See reverse side for instructions on how to complete this form

CONFERENCE

1. Full title of Conference International Joint Conference on Neural Networks 1991
 2. Dates of Conference 18-21 November 1991
 3. Location of Conference (full name and address) The Westin Stanford, Singapore.

TYPE OF REPORT / CURRENCY USED

4. Indicate type of report by checking one box:
 Budget Interim Report Final Report
 5. All income and expense figures below must be in U.S. Dollars. For Conferences held outside the U.S.A., indicate the local currency (e.g., Swiss Francs) and the conversion rate used (local currency units per 1 U.S. Dollar) and date.
 Local currency: Singapore Dollars Conversion rate: 1.61 Date of conversion rate: 31 Aug. 1993

INCOME

| | Budget | Interim Report | Final Report |
|-----------------------------------|----------|----------------|---------------------|
| 6. Registration Fees | \$ _____ | \$ _____ | \$ <u>151074.05</u> |
| 7. Conference Publication Sales | _____ | _____ | <u>39486.49</u> |
| 8. Exhibits | _____ | _____ | <u>4968.94</u> |
| 9. Social Functions | _____ | _____ | _____ |
| 10. All Other Conference Receipts | _____ | _____ | <u>23912.85</u> |
| 11. Total Conference Income | _____ | _____ | <u>219442.33</u> |
| 12. Advance Loans | _____ | _____ | _____ |
| 13. Total Receipts | \$ _____ | \$ _____ | \$ <u>219442.33</u> |

EXPENSE

| | Budget | Interim Report | Final Report |
|-----------------------------------|----------|----------------|---------------------|
| 14. Promotion | \$ _____ | \$ _____ | \$ <u>22096.55</u> |
| 15. Conference Publications | _____ | _____ | <u>54084.41</u> |
| 16. Exhibits | _____ | _____ | <u>10232.91</u> |
| 17. Social Functions | _____ | _____ | _____ |
| 18. Administration | _____ | _____ | <u>50177.06 *</u> |
| 19. All Other Conference Expenses | _____ | _____ | <u>92843.43 **</u> |
| 20. Total Conference Expense | _____ | _____ | <u>229434.36</u> |
| 21. Loan Repayments | _____ | _____ | _____ |
| 22. Total Outlays | \$ _____ | \$ _____ | \$ <u>229434.36</u> |

*Include social f
 ** Incl expense
 tutorie

SURPLUS / (LOSS)

23. Total Receipts (13) \$ 219442.33 24. Total Outlays (22) \$ 229434.36
 25. Surplus (Loss) - (Item 23 less Item 24) \$ (9992.03)

POST CONFERENCE DISTRIBUTION

Surplus (Loss) in Item 25 to be distributed as follows:

| Cosponsor Entity | % Share | \$ Distributed |
|----------------------------------|------------|-------------------|
| a. <u>IEEE NNC</u> | <u>50%</u> | <u>(4996.015)</u> |
| b. <u>IEEE Singapore Section</u> | <u>50%</u> | <u>(4996.015)</u> |
| c. _____ | _____ | _____ |
| d. _____ | _____ | _____ |
| Surplus (Loss) \$ | | <u>(9992.03)</u> |

CONFERENCE FINANCIAL INSTITUTION

Name of Bank Development Bank of Singapore, Kent Ridge Branch
 Address Lower Kent Ridge Road, Singapore 0511
 Conference Account Title IJCNN 91 Singapore Account No. _____
 Have you requested IEEE Conference Insurance? Yes No

SUBMITTED BY:

Name Dr. Teck Seng Low Tel. No. (65) 7726851
 Address Magnetics Technology Centre, National University of Singapore, Singapore 0511
 Conference Position Conference General Chair

SIGNATURE Date 3-Sept. 93

RETURN TO: IEEE CONFERENCE SERVICES 445 HOES LANE, P.O. BOX 1331, PISCATAWAY, N.J. 08855-1331, U.S.



**INTERNATIONAL JOINT CONFERENCE ON NEURAL NETWORKS
INCOME & EXPENDITURE STATEMENT AS AT AUGUST 31, 1993**

| | S\$ | S\$ |
|---|------------|--------------------------------|
| INCOME | | |
| Advertising | | 16,461.00 |
| Conference Income | | 243,229.23 |
| Exhibition Income | | 8,000.00 |
| Other Income | | 10,038.70 |
| Sales of Proceedings | | 63,573.26 |
| Sponsorship | | 12,000.00 |
| | | <hr/> |
| | | 353,302.19 |
| | | |
| LESS : EXPENSES | | |
| Advertisement | 11,792.34 | |
| Auditors Remuneration | 1,300.00 | |
| Bank Charges | 64.46 | |
| Exhibition Charges | 16,475.00 | |
| General Expenses | 1,481.00 | |
| Honorarium Expenses | 7,515.00 | |
| Hotel Accomodation | 149,477.92 | |
| Management Fees | 20,090.00 | |
| Outside Services | 7,627.00 | |
| Photocopier Charges | 350.00 | |
| Postage & Courier | 23,783.12 | |
| Printing | 87,075.90 | |
| Prizes | 560.00 | |
| Refreshment | 400.00 | |
| Stationery | 3,345.98 | |
| Telephone | 3,793.73 | |
| Transportation | 580.00 | |
| Travelling Expenses | 7,845.95 | |
| Travelling for Speakers | 25,831.95 | |
| | <hr/> | |
| | | 369,389.35 |
| | | |
| DEFICIT ON INCOME OVER EXPENDITURE | | <hr/> (16,087.16) <hr/> |

Certified Correct

Dr. Low Teck Seng
Chairman

Dr. Tay Teng Tiow
Treasurer



**INTERNATIONAL JOINT CONFERENCE ON NEURAL NETWORKS
EXPENSE STATEMENT AS AT AUGUST 31, 1993**

| | S\$ |
|---|-----------|
| HONORARIUM EXPENSES | |
| Mr. James Bezdek | 835.00 |
| Ms. Catherine Myers | 835.00 |
| Mr. Y. Takefuji | 835.00 |
| Prof. R. Eckmiller | 835.00 |
| Dr. Errki Oja | 835.00 |
| Dr. Madan M. Gupta | 835.00 |
| Prof. K. S. Narendra | 835.00 |
| Ms. A. J. Maren | 835.00 |
| Mr. Chris Lacher | 835.00 |
| | ----- |
| | 7,515.00 |
| | ===== |
| | |
| TRAVELLING EXPENSES FOR SPEAKERS | |
| Mr. Chris Lacher | 2,351.52 |
| Mr. James Bezdek | 3,168.00 |
| Ms. Catherine Myers | 2,616.89 |
| Mr. Y. Takefuji | 2,491.64 |
| Prof. R. Eckmiller | 2,532.34 |
| Dr. Madan M. Gupta | 2,505.00 |
| Prof. K. S. Narendra | 2,254.00 |
| Ms. A. J. Maren | 2,134.26 |
| Mr. Thomas Caudell | 1,397.70 |
| Prof. Terrance Sejnowski | 2,204.40 |
| Mr. Teuvo Kohonen | 2,176.20 |
| | ----- |
| | 25,831.95 |
| | ===== |



**INTERNATIONAL JOINT CONFERENCE ON NEURAL NETWORKS
EXPENSES STATEMENT AS AT AUGUST 31, 1993**

| | S\$ | S\$ |
|--|-----------|-------------------|
| HOTEL ACCOMODATION :- | | |
| Rooms Charges | | |
| J Bezdek | 926.60 | |
| Trevor Kohonen | 926.60 | |
| Russell Eberhart | 926.60 | |
| R. Eckmiller | 926.60 | |
| Alianna Maren | 926.60 | |
| Y. Takefuji | 926.60 | |
| Catherine Myers | 926.60 | |
| Errki Oja | 926.60 | |
| Thomas Caudell | 926.60 | |
| Yoshikazu Nishikawa | 926.60 | |
| M. M. Gupta | 926.60 | |
| Alianna Maren | 463.30 | |
| K. S. Narendra | 694.95 | |
| | ----- | 11,350.85 |
| Rental of Conference Rooms and Meals for Participants | | |
| 11/18/91 | 27,308.05 | |
| 11/19/91 | 30,407.00 | |
| 11/20/91 | 30,421.90 | |
| 11/21/91 | 30,645.45 | |
| | ----- | 118,782.40 |
| Dinner for Participants and Cultural Show | | 18,878.82 |
| Executive Centre Charges | | 465.85 |
| | | ----- |
| | | <u>149,477.92</u> |
| | | ===== |



**INTERNATIONAL JOINT CONFERENCE ON NEURAL NETWORKS
BALANCE SHEET AS AT AUGUST 31, 1993**

| | S\$ | S\$ |
|--|------------------|-----------------|
| CURRENT ASSETS | | |
| Bank Balance | 2,486.66 | |
| Communication International Associates | 7,625.77 | |
| | <u>10,112.43</u> | |
| LESS CURRENT LIABILITIES | | |
| Accruals | 500.00 | |
| Due to IEEE (Conference Services) | 4,260.59 | |
| | <u>4,760.59</u> | |
| NET CURRENT ASSETS | | <u>5,351.84</u> |
| Represented by; | | |
| SEED MONEY | 44,687.00 | |
| Less Returns | 23,248.00 | |
| | <u>21,439.00</u> | |
| Deficit on Income over Expenditure | | (16,087.16) |
| | | <u>5,351.84</u> |

Certified Correct

Handwritten signature of Dr. Low Teck Seng.

Dr. Low Teck Seng
Chairman

Handwritten signature of Dr. Tay Teng Tiow.

Dr. Tay Teng Tiow
Treasurer



IEEE
SINGAPORE SECTION

**INTERNATIONAL JOINT CONFERENCE ON NEURAL NETWORKS
STATEMENT OF ACCOUNTS**

S\$

IEEE (Conference Services)
=====

| | |
|--------------------------------------|-------------|
| Seed Money | 34,687.00 |
| Share of Deficit on Conference | (8,043.58) |
| | ----- |
| | 26,643.42 |
| First Return of Seed Money | 21,298.00 |
| | ----- |
| Balance due to as at August 31, 1993 | 5,345.42 |
| | ===== |

IEEE (Singapore Section)
=====

| | |
|--------------------------------------|-------------|
| Seed Money | 10,000.00 |
| Share of Deficit on Conference | (8,043.58) |
| | ----- |
| | 1,956.42 |
| First Return of Seed Money | 1,950.00 |
| | ----- |
| Balance due to as at August 31, 1993 | 6.42 |
| | ===== |

INSTITUTE OF ELECTRICAL & ELECTRONICS ENGINEERS
 INTERNATIONAL JOINT CONFERENCE ON NEURAL NETWORKS

HOTEL ACCOMODATION AND CONFERENCE PACKAGE
 =====

| NAME | DETAILS | AMOUNT S\$ |
|---------------------|-------------------------------------|----------------|
| J BEZDER | ROOM FROM 16/11 TO 19/11 | 926.60 |
| TREVOR KOHONEN | ROOM FROM 16/11 TO 19/11 | 926.60 |
| RUSSELL EBERHART | ROOM FROM 16/11 TO 19/11 | 926.60 |
| R ECKMILLER | ROOM FROM 16/11 TO 19/11 | 926.60 |
| ALIANNA MAREN | ROOM FROM 16/11 TO 19/11 | 926.60 |
| Y TAKEFUJI | ROOM FROM 16/11 TO 19/11 | 926.60 |
| CATHERINE MYERS | ROOM FROM 16/11 TO 19/11 | 926.60 |
| E OJA | ROOM FROM 16/11 TO 19/11 | 926.60 |
| THOMAS CAUDELL | ROOM FROM 16/11 TO 19/11 | 926.60 |
| YOSHIKAZU NISHIKAWA | ROOM FROM 16/11 TO 19/11 | 926.60 |
| H H GUPTA | ROOM FROM 16/11 TO 19/11 | 926.60 |
| WESTIN STAMFORD | DINNER FOR SPEAKERS | 496.10 |
| ALIANNA MAREN | ROOM FOR 21/11 TO 22/11 | 463.30 |
| K S MARENDRA | ROOM FROM 19/11 TO 22/11 | 694.95 |
| WESTIN STAMFORD | TELEPHONE INSTALLATION | 390.00 |
| WESTIN STAMFORD | TEA ROOM | 28.25 |
| WESTIN STAMFORD | TELEPHONE CALLS | 9.45 |
| WESTIN STAMFORD | EXECUTIVE CENTRE CHARGES | 5.95 |
| WESTIN STAMFORD | CONF PACKAGE FOR 655 PX @ S\$65/DAY | 127,725.00 |
| WESTIN STAMFORD | DISCOUNT ON CONF PACK FOR STUDENTS | (9,325.18) |
| WESTIN STAMFORD | DINNER FOR CONFERENCE | 17,797.50 |
| CIA | CULTURAL SHOWS FOR PARTICIPANTS | 1,000.00 |
| | | ----- |
| | | S\$ 149,477.92 |
| | | ===== |

ALL AMOUNT EXPRESS IN SINGAPORE DOLLARS

INSTITUTE OF ELECTRICAL & ELECTRONICS ENGINEERS
INTERNATIONAL JOINT CONFERENCE ON NEURAL NETWORKS

TRAVEL FOR SPEAKERS
=====

| NAME | DETAILS | AMOUNT S\$ |
|--------------------|---------------------------------|------------|
| JAMES BEZDEK | FLIGHT ARRANGEMENT TO SINGAPORE | 3,167.99 |
| CATHERINE MYERS | FLIGHT ARRANGEMENT TO SINGAPORE | 2,616.89 |
| Y TAKEFUJI | FLIGHT ARRANGEMENT TO SINGAPORE | 2,491.64 |
| R ECKMILLER | FLIGHT ARRANGEMENT TO SINGAPORE | 2,532.34 |
| HADAN M GUPTA | FLIGHT ARRANGEMENT TO SINGAPORE | 2,505.00 |
| R C LACHER | FLIGHT ARRANGEMENT TO SINGAPORE | 2,351.52 |
| K S NARENDRA | FLIGHT ARRANGEMENT TO SINGAPORE | 2,254.50 |
| A J MARIN | FLIGHT ARRANGEMENT TO SINGAPORE | 2,266.26 |
| THOMAS DANDELL | FLIGHT ARRANGEMENT TO SINGAPORE | 2,232.70 |
| TERRANCE SUDKOWSKI | FLIGHT ARRANGEMENT TO SINGAPORE | 2,404.40 |
| TRUYO KOSHIMIZU | FLIGHT ARRANGEMENT TO SINGAPORE | 2,415.46 |
| | | ----- |
| | | 27,238.70 |
| | | ===== |

ALL AMOUNT EXPRESSE IN SINGAPORE DOLLARS

Tab #9
NNC Item VI.D.4
January 1993

IJCNN 92 BALTIMORE FINAL REPORT

lau, IJCNN'92 - Baltimore

1

To: lau
From: jbezdek@ai.uwf.edu
Subject: IJCNN'92 - Baltimore

>Date: Thu, 05 Aug 1993 16:14:25
>From: mdewald@tab.ieee.org (Mary Ann Dewald)
>To: j.bezdek@ieee.org
>Subject: IJCNN'92 - Baltimore
>Cc: clau@charm.isi.edu
>
>I'm going to close the financial records of this conference even though the
>all the final reports & audit that have been sent to us DO NOT HAVE THE SAME
>FIGURES.
>
>Please note that the Surplus received at IEEE for this conference and
>deposited into NNC account are as follows: \$77,540.90 & \$97.73 for a grand
>total of \$77,638.63.
>
>Regards,
>MA
>
>
>

Printed for jbezdek@ai.uwf.edu

1



DEPARTMENT OF THE NAVY
OFFICE OF NAVAL RESEARCH
800 NORTH QUINCY STREET
ARLINGTON, VA 22217-5660

IN REPLY REFER TO
July 27, 1993

Dr. James C. Bezdek
Computer Science Department
University of West Florida
Pensacola, FL 32514

Re: IJCNN'92 Baltimore closeout

Dear Dr. Bezdek:

It puzzled me why IJCNN'92 Baltimore has not yet been closeout. In February 1993 the finance chair, Dr. Shoemaker, submitted the audit report to Dr. Eberhart, Dr. Szu, and to me and at the same time distributed the surplus to the IEEE NNC and to INNS. The total surplus was \$157,626. Per agreement between NNC and INNS, half of the surplus was to belong to NNC and half to INNS. Cashiers check in the amount \$78,813 was sent to NNC President (Dr. Eberhart) and the same amount sent to INNS President (Dr. Szu).

For your information, here is an account of the events. On November 20, 1992 the finance chair submitted a final report (Encl. (1)) on the finances for IJCNN'92 Baltimore. At that time, he projected surplus of about \$158K. Enclosure (2) was the approved budget for the conference based on various projections on attendance. Then on January 28, 1993 I instructed (Encl. (3)) the finance chair to distribute the surplus to the IEEE NNC and to INNS. He did so on February 4 (Encl. (4)). He also sent original copies of the audit report by Moody, Nation and Smith, Certified Public Accountants to Dr. Eberhart, Dr. Szu, and to me.

As far as I am concern, the books on IJCNN'92 Baltimore are closed. All the surplus funds have been distributed in accordance with the IEEE NNC and INNS agreement.

Sincerely,

A handwritten signature in cursive script that reads "Lau".

Clifford Lau
General Chair, IJCNN'92

Cc: Mary Ann DeWald
Russell Eberhart
Harold Szu

20 November 1992

Clifford Lau
IJCNN'92 Baltimore General Chairman
Office of Naval Research
Code 1114SE
800 N. Quincy St.
Arlington, VA 22217-5000

Dear Dr. Lau:

Enclosed find a final report on conference finances for the IJCNN'92 Baltimore. All transactions are to our knowledge complete, except for final payment to the auditor. The audit should be finished before the end of the year. As you can see, the conference was successful financially, with a projected net profit of about \$158K.

Best Regards,



Patrick Shoemaker
Finance Chairman
IJCNN'92 Baltimore

cc: Meeting Management

Roy S. Nutter, IEEE Liaison
Judith Dayhoff, INNS Liaison
Moody, Nation, & Smith, CPA

FINAL REPORT ON CONFERENCE FINANCES
INTERNATIONAL JOINT CONFERENCE ON NEURAL NETWORKS
7-11 JUNE 1992, BALTIMORE, MD

The conference shows a projected net profit of approximately \$158,000. Enclosed is a summary of expenses and incomes in itemized form, a key to transaction codes, and the conference budget (final version, August 1991). Hereafter, all references to budgeted or projected amounts refer to this last document. As of 1 November, the balances of the conference bank accounts totaled approximately \$160,000. The auditing of the conference is nearing completion and the auditor's report should be available in December 1992.

Actual income (\$483.3K) fell short of projected income for 1400 attendees (\$555.1K) by about \$72K. A shortfall in registration income (\$345.8K projected vs. \$287.7K actual) is attributed by the management company primarily to a larger proportion of student attendees than expected. The total discrepancy in income would have been larger but for two sources of income underestimated in the original budget: hotel commissions (\$20.1K actual), which were not accounted for in the budget, and proceedings sales (\$91.1K actual vs. \$40K projected). The primary buyer of proceedings (\$78K) was the IEEE. An income category was added for hotel commissions in the summary. Registration income has not been itemized according to date (early-early, early, late, or one-day) or category (member, non-member, or student), although dates of deposits are available which should allow a rough estimate of the former. Registration/tutorial refunds were not budgeted but totaled about \$7.5K; these were subtracted from the registration income total in the summary.

Actual expenses (\$325.1K) fell short of projected expenses (\$514.7K) by about \$190K. This was due to overestimation of costs in the majority of expense categories budgeted. Some of the most significant of these include dinner banquet (\$37.1K actual vs. \$70K projected) and all other food services (\$18.9K actual vs. \$44.8K projected), and proceedings publication (\$69.4K actual vs. \$102K projected). Actual publication costs were offset by about \$9.3K in page charges, which have been subtracted in the total given, and which were not accounted for in the budget. Abstracts were not printed (\$14K was budgeted). A number of items in the Committee Expense category were significantly overestimated as well. A few underestimates occurred, including administrative and supplies costs (\$18.8K actual vs. \$13.5K projected) and exhibit marketing (mainly booths, drapes, carpet, etc.) (\$15.9K actual vs. \$10K projected).

A number of recommendations for future conferences can be made based on experiences with this meeting. The Miscellaneous income and Administrative/Supplies expense categories served as "catch alls" for a number of transactions which were difficult to itemize or not clearly itemized when made. Administrative expenses, for example, included bank charges, badge printing, computer rentals and data processing, Xerox costs, overnight mail, and shipping costs, among others, which resulted in this category going over budget. I recommend some additional itemizations in the initial budget; in particular, of shipping (mainly of proceedings) and support equipment purchase or rental (e.g. computers), as well as hotel commission incomes. Also, a number of budget items were not used, as seen on the enclosed key to itemization. In the original budget, hotel commissions and sales of proceedings to the sponsoring societies were overlooked, which resulted in an underestimation of income that fortunately compensated for an overestimation of registration and other incomes. In addition, while overestimation of expenses in budgeting is prudent, our experience shows that these estimates were in some cases very inflated for the IJCNN. Closer estimates might allow a reduction in registration fees while still insuring that the conference does not operate at a loss to the sponsoring societies.

Patrick Shoemaker
Finance Chairman
IJCNN'92 Baltimore

IJCNN'92 Baltimore
Financial Summary
November 20, 1992

Income:

| | | |
|--------------------|----------|------------|
| Registration | Code 7.1 | 287,746.54 |
| Tutorials | Code 7.3 | 43,115.00 |
| Exhibits | Code 7.4 | 24,765.00 |
| Publisher Exhibits | Code 7.5 | 9,875.00 |
| Proceed/Sales | Code 7.6 | 91,113.79 |
| Misc/Interest | Code 7.7 | 6,583.00 |
| Hotel Commissions | Code 7.8 | 20,072.06 |
| ***Total Income*** | | 483,270.39 |

Expenses:

| | | |
|------------------------|----------|--------------|
| Brochure | Code 1.2 | (12,287.33) |
| Mailings | Code 1.3 | (23,951.94) |
| Advertisement | Code 1.4 | (11,523.03) |
| Public Relations | Code 1.5 | (1,520.49) |
| Food Svcs | Code 2.0 | (18,857.77) |
| Dinner Banquet | Code 2.3 | (37,088.87) |
| Review Process | Code 3.1 | (6,029.24) |
| Proceedings | Code 3.2 | (69,425.09) |
| Programs/Tote Bags | Code 3.3 | (11,957.55) |
| Management Fees | Code 4.1 | (39,000.00) |
| Insurance | Code 4.2 | (100.00) |
| Security | Code 4.3 | (4,545.24) |
| Admin / Supplies | Code 4.4 | (18,817.94) |
| Auditing | Code 4.5 | (4,400.00) |
| Conv Center Rent | Code 5.1 | (12,818.25) |
| Exhibit Management | Code 5.2 | (15,868.73) |
| Exhibit Marketing | Code 5.3 | (1,523.19) |
| Audio Visual | Code 5.4 | (10,871.05) |
| Tutorial Travel | Code 6.1 | (6,212.41) |
| Tutorial Fees | Code 6.2 | (5,000.00) |
| Tutorial Supplies | Code 6.3 | (5,850.97) |
| Tutorial A/V | Code 6.4 | (2,032.50) |
| Plenary Travel | Code 6.6 | (3,105.54) |
| Committee Travel | Code 6.8 | (1,226.45) |
| Volunteers Expenses | Code 6.9 | (1,074.00) |
| *** Total Expenses *** | | (325,087.58) |
| Deposits less Expenses | | 158,182.81 |

IJCNN'92 Baltimore Preliminary Expenses Budget

| | A | B | C | D | E | F | G |
|----|-----------------------------|---------|-----------|-----------|-----------|-----------|-----------|
| 1 | Estimated attendees | | 1,200 | 1,400 | 1,600 | 1,800 | 2,000 |
| 2 | Marketing/promotion | | | | | | |
| 3 | Poster printing | | \$2,000 | \$2,000 | \$2,000 | \$2,000 | \$2,000 |
| 4 | Brochure printing (75,000) | | \$20,000 | \$20,000 | \$20,000 | \$20,000 | \$20,000 |
| 5 | Two mailings | | \$25,000 | \$25,000 | \$25,000 | \$25,000 | \$25,000 |
| 6 | Advertisements | | \$15,000 | \$15,000 | \$15,000 | \$15,000 | \$15,000 |
| 7 | Public Relations | | \$10,000 | \$10,000 | \$10,000 | \$10,000 | \$10,000 |
| 8 | | | | | | | |
| 9 | Total Marketing | | \$72,000 | \$72,000 | \$72,000 | \$72,000 | \$72,000 |
| 10 | Social functions | | | | | | |
| 11 | Sunday evening reception | \$10 | \$12,000 | \$14,000 | \$16,000 | \$18,000 | \$20,000 |
| 12 | Coffee breaks | \$20 | \$24,000 | \$28,000 | \$32,000 | \$36,000 | \$40,000 |
| 13 | Dinner banquet | \$50 | \$60,000 | \$70,000 | \$80,000 | \$90,000 | \$100,000 |
| 14 | Others (Press, etc) | \$2 | \$2,400 | \$2,800 | \$3,200 | \$3,600 | \$4,000 |
| 15 | | | | | | | |
| 16 | Total Social | | \$98,400 | \$114,800 | \$131,200 | \$147,600 | \$164,000 |
| 17 | Publications | | | | | | |
| 18 | Review processing/ mailing | | \$5,000 | \$5,000 | \$5,000 | \$5,000 | \$5,000 |
| 19 | Proceedings (2000+attend) | \$30 | \$96,000 | \$102,000 | \$108,000 | \$114,000 | \$120,000 |
| 20 | Abstracts | \$10 | \$12,000 | \$14,000 | \$16,000 | \$18,000 | \$20,000 |
| 21 | Programs and tote bag etc. | \$13 | \$15,600 | \$18,200 | \$20,800 | \$23,400 | \$26,000 |
| 22 | | | | | | | |
| 23 | Total Publications | | \$128,600 | \$139,200 | \$149,800 | \$160,400 | \$171,000 |
| 24 | Meeting management exp. | | | | | | |
| 25 | Management | | \$39,000 | \$39,000 | \$41,200 | \$45,600 | \$50,000 |
| 26 | Insurance/bonding | | \$2,000 | \$2,000 | \$2,000 | \$2,000 | \$2,000 |
| 27 | Security/guards | | \$5,000 | \$5,000 | \$5,000 | \$5,000 | \$5,000 |
| 28 | Administration and supplies | | \$13,500 | \$13,500 | \$13,500 | \$13,500 | \$13,500 |
| 29 | Auditing | | \$7,500 | \$7,500 | \$7,500 | \$7,500 | \$7,500 |
| 30 | | | | | | | |
| 31 | Total Management | | \$67,000 | \$67,000 | \$69,200 | \$73,600 | \$78,000 |
| 32 | Facilities/equipment | | | | | | |
| 33 | Convention center rental | | \$12,700 | \$12,700 | \$12,700 | \$12,700 | \$12,700 |
| 34 | Exhibit management | | \$10,000 | \$10,000 | \$10,000 | \$10,000 | \$10,000 |
| 35 | Exhibit marketing | | \$10,000 | \$10,000 | \$10,000 | \$10,000 | \$10,000 |
| 36 | Audio/visual | | \$12,000 | \$12,000 | \$12,000 | \$12,000 | \$12,000 |
| 37 | | | | | | | |
| 38 | Total Facilities | | \$44,700 | \$44,700 | \$44,700 | \$44,700 | \$44,700 |
| 39 | Committee expenses | | | | | | |
| 40 | Tutorial speaker travel | \$1,000 | \$15,000 | \$15,000 | \$15,000 | \$15,000 | \$15,000 |
| 41 | Tutorial speaker fees | \$1,000 | \$15,000 | \$15,000 | \$15,000 | \$15,000 | \$15,000 |
| 42 | Tutorial books and supplies | | \$17,000 | \$17,000 | \$17,000 | \$17,000 | \$17,000 |
| 43 | Tutorial audio/visual | | \$2,000 | \$2,000 | \$2,000 | \$2,000 | \$2,000 |
| 44 | Tutorial coffee breaks | | \$2,000 | \$2,000 | \$2,000 | \$2,000 | \$2,000 |
| 45 | Plenary speaker travel | \$1,000 | \$5,000 | \$5,000 | \$5,000 | \$5,000 | \$5,000 |
| 46 | Contingency | | \$10,000 | \$10,000 | \$10,000 | \$10,000 | \$10,000 |
| 47 | Committee travel | | \$6,000 | \$6,000 | \$6,000 | \$6,000 | \$6,000 |
| 48 | Volunteers Committee | | \$5,000 | \$5,000 | \$5,000 | \$5,000 | \$5,000 |
| 49 | Total Committee/tutorial | | \$77,000 | \$77,000 | \$77,000 | \$77,000 | \$77,000 |
| 50 | | | | | | | |
| 51 | Total Conf. Expenses | | \$487,700 | \$514,700 | \$543,900 | \$575,300 | \$606,700 |

Encl. 1

IJCNN'92 Baltimore Preliminary Incomes

| | A | B | C | D | E | F | G |
|----|----------------------------|-----------|-----------|------------|-----------|-----------|-----------|
| 1 | | | Member | Non-member | Student | | |
| 2 | Before April 20, 1992 | | \$245 | \$285 | \$75 | | |
| 3 | After April 20, 1992 | | \$295 | \$335 | \$90 | | |
| 4 | One day | | \$100 | \$120 | | | |
| 5 | Tutorials -one | \$125 | | | | | |
| 6 | -two | \$235 | | | | | |
| 7 | - three | \$330 | | | | | |
| 8 | Exhibitors (per booth) | \$950 | | | | | |
| 9 | Publisher (per booth) | \$650 | | | | | |
| 10 | Proceeding sales | \$80 | | | | | |
| 11 | | | | | | | |
| 12 | Estimated attendees | | 1,200 | 1,400 | 1,600 | 1,800 | 2,000 |
| 13 | | | | | | | |
| 14 | Early - member (25%) | | \$73,500 | \$85,750 | \$98,000 | \$110,250 | \$122,500 |
| 15 | Early - nonmember (10%) | | \$34,200 | \$39,900 | \$45,600 | \$51,300 | \$57,000 |
| 16 | Early - student (10%) | | \$9,000 | \$10,500 | \$12,000 | \$13,500 | \$15,000 |
| 17 | Late - member (25%) | | \$88,500 | \$103,250 | \$118,000 | \$132,750 | \$147,500 |
| 18 | Late - nonmember (20%) | | \$80,400 | \$93,800 | \$107,200 | \$120,600 | \$134,000 |
| 19 | Late - student (10%) | | \$10,800 | \$12,600 | \$14,400 | \$16,200 | \$18,000 |
| 20 | | | | | | | |
| 21 | Registration income | | \$296,400 | \$345,800 | \$395,200 | \$444,600 | \$494,000 |
| 22 | | | | | | | |
| 23 | One day income | 4% | \$4,800 | \$5,600 | \$6,400 | \$7,200 | \$8,000 |
| 24 | | | | | | | |
| 25 | Tutorial income - ave 2 ea | 35% after | \$98,700 | \$115,150 | \$131,600 | \$148,050 | \$164,500 |
| 26 | | | | | | | |
| 27 | Exhibit income | 40 booth | \$38,000 | \$38,000 | \$38,000 | \$38,000 | \$38,000 |
| 28 | | | | | | | |
| 29 | Publisher income | 10 booths | \$6,500 | \$6,500 | \$6,500 | \$6,500 | \$6,500 |
| 30 | | | | | | | |
| 31 | Proceeding sales | 500 cps | \$40,000 | \$40,000 | \$40,000 | \$40,000 | \$40,000 |
| 32 | | | | | | | |
| 33 | Other income (int., etc.) | | \$4,000 | \$4,000 | \$4,000 | \$4,000 | \$4,000 |
| 34 | | | | | | | |
| 35 | | | | | | | |
| 36 | Total income | | \$488,400 | \$555,050 | \$621,700 | \$688,350 | \$755,000 |

IJCNN'92 Baltimore Preliminary Budget

| | A | B | C | D | E | F |
|----|--------------------------------|------------------|------------------|------------------|------------------|------------------|
| 1 | Estimated Attendees | 1,200 | 1,400 | 1,600 | 1,800 | 2,000 |
| 2 | | | | | | |
| 3 | Conf. Income | \$488,400 | \$555,050 | \$621,700 | \$688,350 | \$755,000 |
| 4 | IEEE Seed Money | \$50,000 | \$50,000 | \$50,000 | \$50,000 | \$50,000 |
| 5 | | | | | | |
| 6 | Total income | \$538,400 | \$605,050 | \$671,700 | \$738,350 | \$805,000 |
| 7 | | | | | | |
| 8 | Conf. Expenses | \$487,700 | \$514,700 | \$543,900 | \$575,300 | \$606,700 |
| 9 | Reimbursement to IEEE | \$50,000 | \$50,000 | \$50,000 | \$50,000 | \$50,000 |
| 10 | | | | | | |
| 11 | Total Expenses | \$537,700 | \$564,700 | \$593,900 | \$625,300 | \$656,700 |
| 12 | | | | | | |
| 13 | Net (income - expenses) | \$700 | \$40,350 | \$77,800 | \$113,050 | \$148,300 |

January 28, 1993

Dr. Patrick Shoemaker
Code 552
NCCOSC, NRaD Division
San Diego CA 92152-5000

Dear Pat:

I am glad to hear that the audit for the finances of IJCNN'92 Baltimore is completed, and that you are ready to disburse the balance of funds.


Per agreement between the IEEE Neural Network Council (IEEE-NNC) and the International Neural Network Society (INNS), the profits from IJCNN'92 should be split 50%-50%. Further distribution within the IEEE share and INNS share, to the local or student chapters or whatever, is the decision of IEEE-NNC and INNS.

Therefore, please forward 1/2 of the profits derived from IJCNN'92 to the IEEE Neural Network Council and 1/2 to the International Neural Network Society, to the addressees at the bottom of this letter. Please include a copy of the external audit, as well as any documentation you deem necessary. Also please send a copy of everything you send to them to me.

I want to express my deepest appreciation for the great job you did as Treasurer for IJCNN'92, and I think the IEEE-NNC and INNS truly appreciated your work and professionalism. I will be seeing you at the NRaD Conference in April.

Thanks again.

Sincerely yours,


Clifford Lau
Acting Director, Electronics Division

Cc: Dr. Harold Szu
President, INNS
1250 24th Street, Suite 300
Washington DC 20037

Dr. Russell C. Eberhart
President, IEEE-NNC
Research Triangle Institute
P. O. Box 12194
Research Triangle Park NC 27709-2194

4 February 1993

Clifford Lau
Office of Naval Research
Code 1114SE
800 N. Quincy St.
Arlington VA 22217-5000

Dear Dr. Lau:

Enclosed find a copy of the auditor's report for the IJCNN'92 Baltimore, for your reference. The funds from the conference have been distributed per the instructions in your letter of 28 January 1993. It has been a pleasure serving as the Finance Chairman.

Sincerely,



Patrick Shoemaker
NCCOSC RDTE DIV 551
53475 STROTHER ROAD RM 216
SAN DIEGO CA 92152-6365

THE INSTITUTE OF ELECTRICAL AND
ELECTRONICS ENGINEERS, INC. AND
THE INTERNATIONAL NEURAL NETWORK SOCIETY

STATEMENT OF REVENUE AND EXPENSES
AND ALLOCATION OF NET PROCEEDS
AND REPORT OF INDEPENDENT
CERTIFIED PUBLIC ACCOUNTANTS

FOR THE INTERNATIONAL JOINT CONFERENCE
ON NEURAL NETWORKS
1992 BALTIMORE CONFERENCE (IJCNN '92)

June 7 through 11, 1992

THE INSTITUTE OF ELECTRICAL AND
ELECTRONICS ENGINEERS, INC. AND
THE INTERNATIONAL NEURAL NETWORK SOCIETY

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Moody, Nation and Smith

REPORT OF INDEPENDENT CERTIFIED PUBLIC ACCOUNTANTS

To the Committee of
The Institute of Electrical and Electronics Engineers, Inc.
and the International Neural Network Society
International Joint Conference on Neural Networks

We have audited the accompanying statement of revenue and expenses and the allocation of net proceeds, on a cash basis, for the International Joint Conference on Neural Networks 1992 Baltimore Conference (IJCNN '92) held on June 7 through 11, 1992. These financial statements are the responsibility of the Conference's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

As described in Note A, the accompanying statement of revenue and expenses and the allocation of net proceeds have been prepared on a cash basis; thus, revenue is recognized when received, rather than when earned, and expenses are recognized when paid, rather than when the obligations are incurred. Accordingly, the statement of revenue and expenses and the allocation of net proceeds are not intended to present the results of operations in conformity with generally accepted accounting principles.

In our opinion, the financial statements referred to above present fairly, in all material respects, the revenue and expenses and the allocation of net proceeds for the Institute of Electrical and Electronics Engineers, Inc. and the International Neural Network Society, covering the period of June 7 through 11, 1992, on the basis of accounting described in Note A.

Moody, Nation & Smith
Certified Public Accountants

San Diego, California
November 30, 1992

The Institute of Electrical and Electronics Engineers, Inc.
and the International Neural Network Society
STATEMENT OF REVENUE AND EXPENSES - CASH BASIS
For the International Joint Conference on Neural Networks
1992 Baltimore Conference (IJCNN '92)
Held June 7 through 11, 1992

| | |
|--------------------------|-------------------|
| REVENUE | |
| Registration | \$ 287,746 |
| Proceedings | 91,114 |
| Tutorials | 43,115 |
| Exhibits | 34,640 |
| Hotel commissions | 19,262 |
| Miscellaneous income | 4,902 |
| Interest income | <u>2,822</u> |
| Total Revenue | 483,601 |
| EXPENSES | |
| Publications | 87,412 |
| Management | 67,750 |
| Social functions | 55,947 |
| Marketing | 49,283 |
| Facilities and equipment | 41,081 |
| Committee expenses | <u>24,502</u> |
| Total Expenses | <u>325,975</u> |
| Net Proceeds | <u>\$ 157,626</u> |

The accompanying notes are an integral part of this financial statement.

The Institute of Electrical and Electronics Engineers, Inc.
and the International Neural Network Society
ALLOCATION OF NET PROCEEDS - CASH BASIS
For The International Joint Conference on Neural Networks
1992 Baltimore Conference (IJCNN '92)
Held June 7 through 11, 1992

| | |
|---|-------------------|
| Net proceeds available for allocation (see Note C) | <u>\$ 157,626</u> |
| Allocation | |
| International Neural Network Society (50%) | \$ 78,813 |
| Neural Network Council (45%) | 70,932 |
| IEEE Baltimore Section (5%) | <u>7,881</u> |
| | <u>\$ 157,626</u> |

The accompanying notes are an integral part of this financial statement.

The Institute of Electrical and Electronics Engineers, Inc.
and the International Neural Network Society
NOTES TO STATEMENT OF REVENUE AND EXPENSES
AND ALLOCATION OF NET PROCEEDS
For the International Joint Conference on Neural Networks
1992 Baltimore Conference (IJCNN '92)
Held June 7 through 11, 1992

NOTE A - ORGANIZATION AND BASIS OF PRESENTATION

The Institute of Electrical and Electronics Engineers, Inc. (the IEEE) and the International Neural Network Society (the INNS) held the International Joint Conference on Neural Networks 1992 Baltimore Conference (IJCNN '92) from June 7 through 11, 1992. The statement of revenue and expenses and the allocation of net proceeds for that conference have been prepared on the cash basis of accounting and not on an accrual basis, as would be required by generally accepted accounting principles. In order for the statements to be in accordance with generally accepted accounting principles, revenues would be recognized when earned, rather than when received, and expenses would be recognized when incurred, rather than when paid (see Note C).

NOTE B - INCOME TAX

No income tax has been provided on the net proceeds since this was an activity of the IEEE and the INNS and the outcome will be incorporated into their operating results at year end.

NOTE C - CONTINGENCIES (UNAUDITED)

Below is a summary of the unaudited receivables and payables outstanding at October 31, 1992. Had these assets and liabilities been reflected as revenue and expenses in the accompanying statement of revenue and expenses, the net proceeds from the conference and tutorials section and allocation of net proceeds would have been as follows:

| | |
|---------------------------|-------------------|
| Net proceeds - cash basis | \$ 157,626 |
| Receivables | |
| Estimated interest income | 220 |
| Payables | |
| Audit fees | 1,400 |
| Advertising | 1,818 |
| Postage | <u>10</u> |
| Total Payables | <u>3,228</u> |
| Net Proceeds | <u>\$ 154,618</u> |

The Institute of Electrical and Electronics Engineers, Inc.
and the International Neural Network Society
NOTES TO STATEMENT OF REVENUE AND EXPENSES
AND ALLOCATION OF NET PROCEEDS - Continued
For the International Joint Conference on Neural Networks
1992 Baltimore Conference (IJCNN '92)
Held June 7 through 11, 1992

NOTE C - CONTINGENCIES (UNAUDITED) - Continued

| | |
|--|-------------------|
| Allocation of Net Proceeds | |
| International Neural Network Society (50%) | \$ 77,309 |
| Neural Networks Council (45%) | 69,578 |
| IEEE Baltimore Section (5%) | <u>7,731</u> |
| | <u>\$ 154,618</u> |

SUPPLEMENTAL INFORMATION



Moody, Nation and Smith

REPORT OF INDEPENDENT CERTIFIED PUBLIC ACCOUNTANTS
ON SUPPLEMENTAL INFORMATION

To the Committee of
The Institute of Electrical and Electronics Engineers, Inc.
and the International Neural Network Society
International Joint Conference on Neural Networks

Our report on our audit of the statement of revenue and expenses and the allocation of net proceeds on a cash basis, for the International Joint Conference on Neural Networks 1992 Baltimore Conference (IJCNN '92) held on June 7 through 11, 1992 appears on page three. That audit was made for the purpose of forming an opinion on the financial statements taken as a whole. The schedules of expenses - cash basis are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information has not been subjected to the auditing procedures applied in the audit of the basic financial statements, and, accordingly, we express no opinion on it.

Certified Public Accountants

San Diego, California
November 30, 1992

The Institute of Electrical and Electronics Engineers, Inc.
and the International Neural Network Society
SCHEDULES OF EXPENSES - CASH BASIS
For the International Joint Conference on Neural Networks
1992 Baltimore Conference (IJCNN '92)
Held June 7 through 11, 1992

| | | |
|--|---------------|-------------------|
| PUBLICATION EXPENSE | | |
| Proceedings | \$ 69,425 | |
| Programs/tote bags | 11,958 | |
| Review processing | <u>6,029</u> | |
| Total Publication Expense | | \$ 87,412 |
| MANAGEMENT EXPENSE | | |
| Management fees | \$ 39,000 | |
| Administration/supplies | 18,876 | |
| Security | 4,545 | |
| Auditing | 3,000 | |
| Credit card discounts and bank charges | 2,229 | |
| Insurance | <u>100</u> | |
| Total Management Expense | | 67,750 |
| SOCIAL FUNCTIONS EXPENSE | | |
| Dinner banquet | \$ 37,089 | |
| Other food services | <u>18,858</u> | |
| Total Social Functions Expense | | 55,947 |
| MARKETING EXPENSE | | |
| Mailings | \$ 23,952 | |
| Brochures | 12,287 | |
| Advertisement | 11,523 | |
| Public relations | <u>1,521</u> | |
| Total Marketing Expense | | 49,283 |
| FACILITIES AND EQUIPMENT EXPENSE | | |
| Exhibit management | \$ 15,869 | |
| Convention Center rental | 12,818 | |
| Audio visual | 10,871 | |
| Exhibit marketing | <u>1,523</u> | |
| Total Facilities and Equipment Expense | | 41,081 |
| COMMITTEE EXPENSE | | |
| Tutorial travel | \$ 6,212 | |
| Tutorial supplies | 5,851 | |
| Tutorial fees | 5,000 | |
| Plenary travel | 3,106 | |
| Tutorial audio visual | 2,033 | |
| Committee travel | 1,226 | |
| Volunteer expenses | <u>1,074</u> | |
| Total Committee Expense | | <u>24,502</u> |
| Total Expenses | | <u>\$ 325,975</u> |

Tab #9
NNC Item VI.D.5
January 1993

FUZZ-ICNN 93 PRELIMINARY REPORT

From: rtong@ads.com (Richard Tong)
Date: Tue, 21 Dec 93 08:53:39 -0800
To: rsn@ece.wvu.edu
Cc: tong@ads.com, rce@rtifs2.rti.org, xm8@sdcc12.ucsd.edu,
 ruspini@ai.sri.com, mdewald@tab.ieee.org, rtong@ads.com
In-Reply-To: Roy S Nutter's message of Tue,
 14 Dec 93 14:15:15 EST <9312142004.AA20468@ece.wvu.edu>
Subject: ICNN/FUZZY-93

Roy:

Sorry for the delay in responding - I was travelling last week.

The books are currently being audited, but will probably not be "closed" until the New Year. We have had a delay because the auditors required additional data on registrations from Meeting Management - this took a while to collect.

In any case, I don't believe I can actually answer the question as posed. We did not keep a record of separate expenses for the two meetings (this would have been almost impossible to do) and the data Meeting Mangement provided doesn't obviously distinguish between registrants for the two meetings.

I can give you, though, the following data:

| | |
|----------------------|---------------|
| IEEE Advances | \$102,000.00 |
| Repaid (to date) | \$210,000.00 |
| Outstanding expenses | ~\$6,000.00 |
| Current account | \$13,699.81 |
| Estimated Profit | ~\$115,000.00 |

The total number of *paying* registrants (total for both meetings) was approximately 1200.

I hope this helps. If you have further questions, please get in touch. My office phone is (415) 960-7429.

Be aware, though, that all the records are with the auditors, so I can only answer general questions.

Best wishes for the Holidays.

Richard

From: rsn@ece.wvu.edu (Roy S Nutter)
Subject: ICNN '93 (fwd)
To: ruspini@ai.sri.com
Date: Tue, 14 Dec 93 11:36:36 EST

To: Enriqui Ruspini

This is the second inquiry that I have recieved about the ICNN/FUZZY Conference. Can you formally answer these questions on letterhead and send them to Mary Ann Dewald with a copy to me?

Thanks ...Roy Nutter

Forwarded message:

> From mdewald@tab.ieee.org Tue Dec 14 11:14:58 1993

> Date: Tue, 14 Dec 1993 10:34:24

> From: mdewald@tab.ieee.org (Mary Ann Dewald)

> To: r.eberhart@ieee.org

> Subject: ICNN '93

> Cc: r.nutter@ieee.org, p.simpson@ieee.org, t.skrinnikov@ieee.org,

> p.sensi@ieee.org, r.wangemann@ieee.org, j.vitale@ieee.org

> Message-Id: <QD0DDD00@jablon>

>
> I received a telephone call from Morgan Downey late yesterday inquiring
> on the status of the final accounting for the sponsored NNC meetings held
> in San Francisco, ICNN '93 and FUZZ '93. Mr. Downey would like to know when
> INNS will receive their share of the net surplus according to the
> Dissolution Agreement.

>

>

>

Dissolution Agreement Between INNS and NNC

>

> 6. In regard to the NNC International Conference on Neural Networks to
> be held in San Francisco in March 1993 in conjunction with the second
> IEEE International Conference on Fuzzy Systems, NNC agrees to share, on
> an equal basis, the net surplus of any attendees above 400 at the Neural
> Networks meeting. The net will be calculated by using the net per
> attendee for the two conferences.

>

>

>

> IEEE recently received a 60K wire transfer from NNC for ICNN '93 and FUZZ

> '93. There were no instructions included as to how the money should be

> distributed between the two conferences. So, Marilyn Prusan divided the

> money in half and applied to each conference, is this correct?

>

>

> So that I can respond to Mr. Downey, when can IEEE expect to receive the

> final financial report and balance of surplus so that the

> distribution of surplus can be made.

>

>

>

> Regards,

>

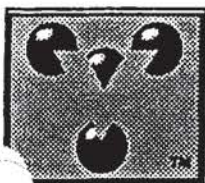
> Mary Ann DeWald

> Administrator, Conference Services

>

Tab #9
NNC Item V.I.D.6
January 1993

VRAIS 93 PRELIMINARY REPORT



VRAIS '93

General Chair:
Thomas Furness
University of Washington

Program Chair:
Thomas Caudell
Boeing Computer Services

Michitaka Hirose
University of Tokyo

Organization Chair:
Robert Marks II
University of Washington

Publications Chair:
Mani Soma
University of Washington

Finance Chair:
Dmitry Kaplan
Siemens-Quantum Corp.

Local Arrangements Chair:
Mohamed El-Sharkawi
University of Washington

Tutorials Chair:
Blake Hannaford
University of Washington

Publicity Chair:
Carley L. Dunn
VPIE

Exhibits Chair:
Chris Esposito
Boeing Computer Services

International Liaisons:
Masahiro Kawahata
Fujitsu Research Institute

Toshio Fukuda
Nagoya University

Meeting Management:
Normi Feldman
Meeting Management
5665 Oberlin Drive, Suite 110
San Diego, CA 92121
Tel. (619) 453-6222
FAX (619) 535-3880

December 14, 1993

James C. Bezdek, Chair
NNC Meetings Committee
The University of West Florida
Computer Science
11000 University Parkway
Pensacola, Florida 32514-5750
FAX 904 474 2096

Dear Dr. Bezdek,

Attached is a preliminary financial and attendance report for VRAIS '93. The attendance information was submitted by Meeting Management. The finances are from VRAIS Finance Chair, Dr. Dmitry Kaplan.

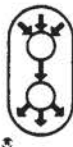
The big successes of the conference were the tutorials, technical program and video proceedings. IEEE EAB video taped the tutorials and will be marketing them under NNC sponsorship. The activity, overseen by NNC video tutorials Chair Dr. El-Sharkawi, however, is not reflected in the conference budget.

All seed money for VRAIS '93 has been returned to the NNC. The conference will show a tidy surplus. Dr. Kaplan indicated that the books should be closed and the conference audit initiated in January.

Sincerely,

Robert J. Marks
VRAIS '93 Organization Chair

cc: Patrick K. Simpson, NNC President Elect
NNC AdCom



THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.



VRAIS '93

=====

| | |
|---|--------------|
| REGISTRATION INCOME - NET DEPOSITED | \$195,104.00 |
| REGISTRATION INCOME - OUTSTANDING TO DATE | \$ 9,940.00* |
| TOTAL | ===== |

(*INCLUDES \$ 8104.00 DUE FROM VRAIS FOR THE HIT LAB)

=====

ATTENDEE REGISTRATION BREAK DOWN IS AS FOLLOWS:

| | | |
|-----------------|---|-----|
| TOTAL ATTENDEES | - | 489 |
| ***** | | |
| SPEAKERS | - | 22 |
| PRESENTERS | - | 61 |
| PRESS | - | 64 |

=====

| | |
|------------------|------------|
| EXHIBITOR INCOME | \$ 5850.00 |
|------------------|------------|

=====

| | | |
|--------------------------------|-------------|---------|
| VRAIS VIDEO PROCEEDINGS INCOME | VISA | 35.00 |
| | CASH/CHECKS | 1235.00 |
| | | ===== |
| | \$ | 5070.00 |

=====

| | |
|-----------------------------|------------|
| ADDITIONAL PROCEEDINGS SOLD | \$ 1413.00 |
|-----------------------------|------------|

=====

VRAIS 93 budget

| INCOME | | Totals to-date |
|---------------------|---------------------|--------------------|
| Registration income | \$181,400 | \$0 |
| Publications | 313,550 | \$0 |
| Exhibits | 218,200 | \$0 |
| Tutorials | 344,500 | \$0 |
| Advance | \$80,000 | \$80,000 |
| TOTAL | \$247,550 OK | \$80,000 OK |

| EXPENSE | | Totals to-date |
|----------------|---------------------|---------------------|
| Promotion | \$89,000 | \$52,330 |
| Subs | \$43,000 | \$22,004 |
| Exhibits | \$16,500 | \$117 |
| Social Funct | \$13,000 | \$13,527 |
| Administration | \$55,200 | \$23,431 |
| All other | \$41,000 | \$24,503 |
| Advance Repay | \$80,000 | \$80,000 |
| TOTAL | \$337,700 OK | \$215,912 OK |

Surplus (LOSS) \$9,850 -135911.7
 Registration Fees

| IEEE Members | CAT | quantity | fee | budget |
|---------------|-----|----------|------------|-------------|
| before 5/1/93 | 1 | 80 @ | \$275.00 = | \$22,000.00 |
| before 7/1/93 | 2 | 80 @ | \$325.00 = | \$26,000.00 |
| at conference | 3 | 80 @ | \$400.00 = | \$32,000.00 |

| Non-members | | quantity | fee | budget |
|---------------|---|----------|------------|-------------|
| before 5/1/93 | 4 | 60 @ | \$320.00 = | \$19,200.00 |
| before 7/1/93 | 5 | 60 @ | \$375.00 = | \$22,500.00 |
| at conference | 6 | 100 @ | \$450.00 = | \$45,000.00 |

| Students | | quantity | fee | budget |
|---------------|---|----------|------------|------------|
| before 5/1/93 | 7 | 40 @ | \$80.00 = | \$3,200.00 |
| before 7/1/93 | 8 | 40 @ | \$95.00 = | \$3,800.00 |
| at conference | 9 | 70 @ | \$110.00 = | \$7,700.00 |

 Total: 610 \$181,400

Conference Publication Sales

| | | | | |
|-------------------|----|-------|------------|-------------|
| To IEEE Members | 10 | 12 @ | \$75.00 = | \$900.00 |
| To non-members | 11 | 12 @ | \$125.00 = | \$1,500.00 |
| To IEEE Headquart | 12 | 450 @ | \$25.00 = | \$11,250.00 |

 Total: 474 \$13,650

Exhibits

| | | | |
|------------------|----|-------------------|-------------|
| Booth/Publishers | 13 | 5 @ \$600.00 = | \$3,000.00 |
| Booth/All other | 14 | 25 @ \$1,000.00 = | \$25,000.00 |
| ----- | | | |
| Total: | | 30 | \$28,000 |

Others

| | | | |
|----------------------|----|-----------------|-------------|
| Tutorial one | 15 | 50 @ \$200.00 = | \$10,000.00 |
| Tutorial two | 16 | 50 @ \$300.00 = | \$15,000.00 |
| Tutorial three | 17 | 50 @ \$390.00 = | \$19,500.00 |
| ----- | | | |
| Total From Tutorials | | 150 | \$44,500 |

 Seed Money Advanc 18 \$80,000

TOTAL INCOME: \$347,550

 =====

BUDGET:

Promotion

| | | | | |
|-------------------|---|----------|-------------|----------|
| per prod | 1 | \$20,000 | Expenses td | 20041.42 |
| Program Prod & pr | 2 | \$7,000 | Expenses td | 2352.25 |
| Mailing lists | 3 | \$7,000 | Expenses td | 4736.13 |
| Postage | 4 | \$28,000 | Expenses td | 16167.8 |
| Mailing hs | 5 | \$7,000 | Expenses td | 0 |
| Advert | 6 | \$20,000 | Expenses td | 9032.04 |
| Other/Souvenir | 7 | \$0 | Expenses td | 0 |

Total Promotion \$89,000
 Total Spent so far \$52,330

Conference Publication

| | | | | | |
|---------------------|----|----------|-------------|----------|----------|
| Proceedings print | 8 | \$40,000 | Expenses td | 12003.85 | |
| CDROM Pubs | 9 | \$0 | Expenses td | 0 | |
| Comm w/ authors | 10 | \$3,000 | Expenses td | 10000 | |
| Total: | | | | | \$43,000 |
| Total spent so far: | | | | 22003.85 | |

Exhibits

| | | | | | |
|---------------------|----|----------|-------------|--------|----------|
| Signage | 11 | \$1,500 | Expenses td | 116.84 | |
| Brochure | 12 | \$1,000 | Expenses td | 0 | |
| Furniture | 13 | \$3,000 | Expenses td | 0 | |
| Equipment Rental | 14 | \$10,000 | Expenses td | 0 | |
| Communication | 15 | \$1,000 | Expenses td | 0 | |
| Total | | | | | \$16,500 |
| Total spent so far: | | | | 116.84 | |

ocial Functions

| | | | | | |
|---------------------|----|----------|-------------|----------|----------|
| Dinner, Reception | 16 | \$13,000 | Expenses td | 13527.36 | |
| Total: | | | | | \$13,000 |
| Total spent so far: | | | | 13527.36 | |

Administration

| | | | | |
|---------------------|----|----------|-------------|----------|
| Insurance and bon | 17 | \$100 | Expenses td | 100 |
| Security and guar | 18 | \$3,000 | Expenses td | 1736.87 |
| A/V Rental | 19 | \$13,000 | Expenses td | 0 |
| Management fee | 20 | \$30,000 | Expenses td | 15000 |
| Office equip rent | 21 | \$2,000 | Expenses td | 189.35 |
| Forms/tickets/sta | 22 | \$1,300 | Expenses td | 0 |
| Posters, signs, b | 23 | \$2,000 | Expenses td | 1213.29 |
| Telephone, fax, c | 24 | \$1,200 | Expenses td | 3601.83 |
| Registration cler | 25 | \$2,000 | Expenses td | 1574.62 |
| gistration supp | 26 | \$600 | Expenses td | 15.19 |
| Total: | | | | \$55,200 |
| Total spent so far: | | | | 23431.15 |

All other

| | | | | |
|---------------------|----|----------|-------------|----------|
| Tutorial signage | 27 | \$0 | Expenses td | 0 |
| Tutorial Notebook | 28 | \$0 | Expenses td | 0 |
| Tutorial A/V | 29 | \$0 | Expenses td | 0 |
| Tutorial honorari | 30 | \$18,000 | Expenses td | 14175.38 |
| Audit | 31 | \$4,000 | Expenses td | 0 |
| Invited Speakers | 32 | \$9,000 | Expenses td | 0 |
| Committee exp | 33 | \$5,000 | Expenses td | 10048.64 |
| Chairman's Fund | 34 | \$5,000 | Expenses td | 278.84 |
| Total: | | | | \$41,000 |
| Total spent so far: | | | | 24502.86 |
| an repayment | | | | 35 |
| | | | | \$80,000 |

Expected Grand Total Outlays \$337,700
 CHECKS WRITTEN ON THIS ACCOUNT Total: 215911.70

Check # CAT Amount ?OK? Adds up? : OK
 To who and why
 Modern printing to print th

1001 1 1036 OK

| | | | | |
|------|----|---------|------|------------------------------|
| 1002 | 1 | 544.13 | OK | Christopher byrd studio == |
| 1003 | 1 | 635 | OK | Modern printing and mailing |
| 1004 | 4 | 2000 | OK | Modern printing 1/3 or post |
| 1005 | 4 | 2000 | OK | Modern printing 2/3 or post |
| 1006 | 4 | 2014 | OK | Modern printing 3/3 or post |
| 1007 | 4 | 1727 | OK | Modern printing -- postage |
| 1008 | 1 | 1302.17 | OK | Meeting management -- broch |
| 1009 | 24 | 130.07 | OK | Meeting management -- long |
| 1010 | 1 | 2500 | OK | Meeting management (mpm) 1/ |
| 1011 | 1 | 2950 | OK | The rest for the above -- I |
| 1012 | 1 | 304.26 | OK | To meeting management for C |
| 1013 | 6 | 484.87 | OK | Christopher Byrd studios -- |
| 1014 | 33 | 244.64 | OK | Bob Marks: \$58.33 -- photoc |
| 1015 | 4 | 2000 | OK | Interpost systems acc 87263 |
| 1016 | 4 | 2298 | OK | Interpost systems acc 87263 |
| 1017 | 10 | 2500 | OK | Meeting management (1/4 of |
| 1018 | 10 | 2500 | OK | Meeting management (1/4 of |
| 1019 | 10 | 2500 | OK | Meeting management (1/4 of |
| 1020 | 10 | 2500 | OK | Meeting management (1/4 of |
| 1021 | 6 | 450 | OK | mit press presence ad |
| 1022 | 24 | 849.59 | OK | meeting management -- fax, |
| 1023 | 6 | 3000 | OK | spectrum (total bill 5697) |
| 1024 | 6 | 2698.1 | OK | spectrum (see above) |
| 1025 | 6 | 625 | OK | meckler for booth at their |
| 1026 | 1 | 1891.57 | OK | modern printing |
| 1027 | 1 | 1500 | OK | meeting managment (old bill |
| 1028 | 4 | 1500 | OK | modern printing and mailing |
| 1029 | 1 | 0 | OOPS | void |
| 1030 | 1 | 2236 | OK | modern printing and mailing |
| 1031 | 1 | 1000 | OK | meeting management (advance |
| 1032 | 6 | 200 | OK | alden jones (for various ma |
| 1033 | 34 | 278.84 | OK | bob marks |
| 1034 | 3 | 2266.66 | OK | iee service center (mailing |
| 1035 | 3 | 1000 | OK | iee service center (mailing |
| 1036 | 1 | 240.88 | OK | kris bird studio |
| 1037 | 6 | 981.75 | OK | miller freeman inc (add in |
| 1038 | 1 | 1240 | OK | chris bird studio (inv 2207 |
| 1039 | 1 | 450 | OK | kris bird (inv 2187) |
| 1040 | 1 | 93.1 | OK | pdq printers (inv 2604) |
| 1041 | 1 | 57.65 | OK | pdq printer (inv 2604) |
| 1042 | 1 | 55.87 | OK | pdq printers (inv 2819) |
| 1043 | 1 | 95.41 | OK | pdq printers (inv 2963) |
| 1044 | 33 | 2500 | OK | u of wa (ruth's salary) |
| 1045 | 1 | 240 | OK | mapaver (# 213149) |
| 1046 | 4 | 440 | OK | modern printing and mailing |
| 1047 | 3 | 1469.47 | OK | rubin response service (inv |
| 1048 | 6 | 392.32 | OK | human factors ad (inv 5549) |
| 1049 | 11 | 116.84 | OK | meeting management banner (|
| 1050 | 1 | 0 | OOPS | void |
| 1051 | 1 | 0 | OOPS | void |
| 1052 | 24 | 369.06 | OK | meeting management (inv 513 |
| 1053 | 1 | 1000 | OK | meeting managment (further |
| 1054 | 4 | 2188.8 | OK | skypack int express |
| 1055 | 33 | 600 | OK | academic press (refund for |
| 1056 | 1 | 500 | OK | meeting managment cash adva |
| 1057 | 8 | 886.4 | OK | video proceedings productio |

| | | | | |
|------|----|---------|------|-----------------------------|
| 1058 | 18 | 857.16 | OK | installation and dismantle |
| 1059 | 23 | 138.32 | OK | blake hannafor |
| 1060 | 17 | 100 | OK | alexander and alexander ins |
| 1061 | 1 | 169.38 | OK | pdq printers |
| 1062 | 35 | 80000 | OK | loan repayment to nnc |
| 1063 | 5 | 200 | OK | alden jones (mailings, etc) |
| 1064 | 24 | 1953.09 | OK | blake hannafor (for all ph |
| 1065 | 33 | 1000 | OK | sheraton |
| 1066 | 33 | 50 | OK | #1 harno amon refund |
| 1067 | 33 | 75 | OK | #2 wojtek furmani refund |
| 1068 | 33 | 75 | OK | #3 bruce reiklen refund |
| 1069 | 33 | 340 | OK | #4 rick kazman refund |
| 1070 | 33 | 20 | OK | #5 terry owens refund |
| 1071 | 33 | 1075 | OK | #6 james thomas refund |
| 1072 | 33 | 19 | OK | #7 natalie denn refund |
| 1073 | 33 | 325 | OK | #8 toshio fukuda refund |
| 1074 | 33 | 325 | OK | #9 michitaka hirose refund |
| 1075 | 33 | 100 | OK | #10 harry vernon refund |
| 1076 | 33 | 200 | OK | #11 karin merdsjo refund |
| 1077 | 33 | 200 | OK | #12 rick jerald refund |
| 1078 | 33 | 200 | OK | #13 mike poirier refund |
| 1079 | 33 | 100 | OK | #14 rick miller refund |
| 1080 | 33 | 100 | OK | #15 bob pierce refund |
| 1081 | 2 | 2352.25 | OK | sos printing vrais booklet |
| 1082 | 33 | 2500 | OK | u of wa ruth (second 1/2 of |
| 1083 | 21 | 189.35 | OK | personal comp rentals |
| 1084 | 26 | 15.19 | OK | steve judkins (grad student |
| 1085 | 30 | 300 | OK | #1 steve kryson tutorial ho |
| 1086 | 30 | 300 | OK | #2 dov adelstein |
| 1087 | 30 | 300 | OK | #3 chris esposito |
| 1088 | 30 | 300 | OK | #4 marc green |
| 1089 | 30 | 300 | OK | #5 edward colgate |
| 1090 | 30 | 300 | OK | #6 resa jalili |
| 1091 | 30 | 300 | OK | #7 hans jense |
| 1092 | 30 | 300 | OK | #8 tom piandanida |
| 1093 | 30 | 300 | OK | #9 henry sowizral |
| 1094 | 30 | 300 | OK | #10 lawrence stark |
| 1095 | 30 | 300 | OK | #11 won kim |
| 1096 | 30 | 300 | OK | #12 michitaka hirose |
| 1097 | 30 | 300 | OK | #13 arden strasser |
| 1098 | 30 | 300 | OK | #14 elizabeth wenzel |
| 1099 | 30 | 1046.7 | OK | #1 arden strasser travel re |
| 1100 | 18 | 879.71 | OK | wells fargo security |
| 1101 | 30 | 952.6 | OK | #2 steve bruson travel |
| 1102 | 25 | 556.5 | OK | emerald city conventions in |
| 1103 | 1 | 0 | OOPS | void |
| 1104 | 1 | 0 | OOPS | void |
| 1105 | 8 | 8040.28 | OK | edward broth printing (inv |
| 1106 | 20 | 15000 | OK | meeting management (inv vr0 |
| 1107 | 30 | 1404.95 | OK | #3 GJ Janse travel |
| 1108 | 24 | 300.02 | OK | at&t (vr 110493) |
| 1109 | 25 | 1018.12 | OK | grayhound exp service |
| 1110 | 30 | 1127.68 | OK | #4 scott fisher travel |
| 1111 | 30 | 508.98 | OK | #5 james elsgate travel |
| 1112 | 30 | 144.03 | OK | bob marks travel |
| 1113 | 30 | 1026.34 | OK | #6 reza jalili travel |

| | | | | |
|------|----|----------|----|-----------------------------|
| 1114 | 30 | 567.44 | OK | #7 mark green travel |
| 1115 | 30 | 581.2 | OK | #8 tom piandaida travel |
| 1116 | 23 | 1074.97 | OK | kitt sign company (to meeti |
| 1117 | 30 | 1295.64 | OK | #9 warren robinett travel |
| 1118 | 16 | 13527.36 | OK | sheraton (for all of it) |
| 1119 | 30 | 407.09 | OK | #13 bernard adelstein trave |
| 1120 | 30 | 80.26 | OK | #11 stephen ellis travel |
| 1121 | 30 | 832.57 | OK | #10 scott foster travel |
| 1122 | 8 | 3077.17 | OK | sos printing (110 proceedin |

Tab #9
NNC Item VI.D.7
January 1993

IJCNN 93 NAGOYA PRELIMINARY REPORT

UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98195

Department of Electrical Engineering, FT-10
Telephone: (206) 543-6990 (office), 543-6061 (secretary),
543-2150 (main office), 776-8995 (home), 543-3842 (FAX), 776-9297 (home FAX).
marks@u.washington.edu

December 14, 1993

James C. Bezdek, Chair
NNC Meetings Committee
The University of West Florida
Computer Science
11000 University Parkway
Pensacola, Florida 32514-5750
FAX 904 474 2096

Dear Dr. Bezdek,

At the request of and on behalf of Dr. Toshio Fukuda, Steering Committee Chair of the 1993 Nagoya IJCNN, I am pleased to submit the attached conference report. The conference was a colossal technical success.

Dr. Fukuda reports that there will be a modest surplus forthcoming to the NNC from the conference.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert J. Marks", with a stylized flourish at the end.

Robert J. Marks

cc: Patrick K. Simpson, NNC President Elect
NNC AdCom

NAGOYA '93 IJCNN Report

The International Joint Conference on Neural Networks (IJCNN'93-NAGOYA) was held in Nagoya, Japan from October 25 to 29, 1993 under the joint sponsorship of the academic societies on neural networks in the world: The IEEE Neural Network Council (NNC), Japan Neural Network Society (JNNS), International Neural Network Society (INNS), European Neural Network Society (ENNS), The Society of Instrument and Control Engineers (SICE), and The Institute of Electronics, Information and Communication Engineers (IEICE). It was the world's largest conference on neural networks. This was the first time held in Japan. Nagoya locates between Tokyo and Osaka. There were about 1500 participants from approximately 40 nations including participants to the public industrial forum. The Advisory Chair of the IJCNN'93-NAGOYA was Prof. F. Harashima, the Organizing Chair Prof. S. Amari, the Program Chair Prof. K. Fukushima, and the Steering Chair Prof. T. Fukuda.

The conference opened with an opening lecture entitled "What Can We Expect from Neural Network Models?" by Prof. M. Ito, and two keynote lectures entitled "Strategies for Developing Effective Neural Network Applications" by Prof. D. E. Rumelhart and "The Brain and Computer" by Prof. S. Amari. An industry forum was also held which was open to the public. The title of this forum was "How Does Neural-Technology Change Industries?," having the theme of neural-technology and industry. There were five panelists from financial, economic, industrial, and academic backgrounds. The titles of their talks are "Advanced Technology: Impact on Financial Industry and Financial Markets" by Dr. G. J. Deboeck, "Integrating Neural Network for Successful Industrial Application" by Prof. F. Fogelman-Soulie, "Neurocomputational Robots - The Primary Industry of the Next Millennium" by Dr. R. Hecht-Nielsen, "Applications of Neural Networks to Home Appliances" by Dr. T. Nitta, and "How the ANN can contribute to the industrial development" by Mr. K. Noguchi. Following the introduction by Prof. T. Fukuda, they had an active discussion on the past, present and future state of neural networks. They provided an opportunity for attendees to understand the possibility of applying neural networks in industrial, finance and other fields, and find new research & development issues and applications.

The remainder of the conference consisted of three keynote lectures entitled "Neural Networks in the Brain Involved in Memory and Recall" by Prof. E. T. Rolls, "Human Level Cognition in Embodied Robots" by Prof. R. A. Brooks, and "Improved Generalization Ability Using Constrained Neural Network Architecture" by Prof. K. Fukushima, 29 technical sessions where about 180 papers were presented, and 530 poster presentations. The technical programs were prepared by the Program Co-Chairs, Prof. K. Fukushima, Prof. R. J. Marks II, Dr. H. H. Szu, and Prof. N. Sugie. There was also a pre-conference session of tutorials in 7 fields, i.e. Neuro Physiology, Biological Model, Nonlinear System, Learning, Control, Hardware, and Pattern Recognition & Connectionist Model, with many participants attending. They included discussions of approaches based on combination of neural networks and fuzzy logic as well as presentations on basic concepts of neural networks, fuzzy logic, and genetic algorithm.

Reception, Banquet, and Closing Party were prepared by the Social Event Chair, Prof. K. Kosuge. The participants enjoyed nice food, drink, and talk. Especially in the Banquet, Dr. Goto, the President of Makita Corporation, gave us a very interesting speech entitled "Japanese Creativity & Flexibility."

During the conference, there were special sessions: Round Table Discussion on "Financial and Economic Applications of Advanced Technology," Real World Computing, President Forum, and Panel Discussion on "Standards for an International Language and Symbolology for Artificial Neural Networks, Performance Measure Methodology and Interfaces." In particular, in the President Forum, the presidents of neural network-related societies around the world introduced their activities and confirmed that there would be future exchange of information and various forms of

cooperation. After the forum, the President Dinner Party was held in the reception hall of City of Nagoya.

Research on neural networks spans many fields. Topics of discussion were basic research such as brain physiology, neurobiology, cognitive science, learning methods, and neural network architecture, as well as application research such as recognition, optimization, control, hybrid systems, hardware, and its implementation. In particular, for the application to dynamic systems including "chaos," it was indicated that recurrent neural networks would be increasingly important. There was also much interest in hybrid systems, or the fusion and integration of neural networks with fuzzy logic and evolutionary computation, i.e. genetic algorithms.

Neural networks research had become a popular subject with the notion that anything was possible. However, the fad seems to be subsiding somewhat as the boundaries of neural networks become clear from the results of much work in this area. This conference has been set up so that there were many papers presented on application. We can foresee that the fields where neural networks will actually be used will increase and broaden in the future, and it is envisioned that they will certainly be effective.

Dr. Takanori Shibata
Steering Committee Member , IJCNN'93-NAGOYA
Bio-Robotics Division, Robotics Department
Mechanical Engineering Laboratory, MITI
1-2 Namiki, Tsukuba 305, Japan
Tel: +81-298-58-7299, Fax: +81-298-58-7201, E-mail: shibata@mel.go.jp

Tab #9
NNC Item VI.D.8
January 1993

WCCI 94 BUDGET



IEEE TECHNICAL ACTIVITIES

SUMMARY FINANCIAL REPORT FOR IEEE SPONSORED OR COSPONSORED CONFERENCES
 See reverse side for instructions on how to complete this form

CONFERENCE

1. Full title of Conference World Congress on Computational Intelligence
 2. Dates of Conference June 26 - July 2, 199
 3. Location of Conference (full name and address) Walt Disney World Dolphin Hotel, 1500 EpCot Resort Blvd, Lake Buena Vista, Florida 32830

TYPE OF REPORT / CURRENCY USED

4. Indicate type of report by checking one box:
 Budget Interim Report Final Report
 5. All income and expense figures below must in U.S. Dollars. For Conferences held outside the U.S.A., indicate here the local currency (e.g., Swiss Francs) and the conversion rate used (local currency units per 1 U.S. Dollar) and date.

Local currency: U.S. Dollars Conversion rate: _____ Date of Conversion rate: _____

INCOME

| | Budget | Interim Report | Final Report |
|-----------------------------------|--------------|----------------|--------------|
| 6. Registration Fees | \$ 745,300 | \$ _____ | \$ _____ |
| 7. Conference Publication Sales | 161,300 | _____ | _____ |
| 8. Exhibits | 54,000 | _____ | _____ |
| 9. Social Functions | 5,250 | _____ | _____ |
| 10. All Other Conference Receipts | 198,000 | _____ | _____ |
| 11. Total Conference Income | 1,163,850 | _____ | _____ |
| 12. Conference Loans | _____ | _____ | _____ |
| 13. Total Receipts | \$ 1,163,850 | \$ _____ | \$ _____ |

EXPENSE

| | Budget | Interim Report | Final Report |
|-----------------------------------|--------------|----------------|--------------|
| 14. Promotion | \$ 273,259 | \$ _____ | \$ _____ |
| 15. Conference Publications | 203,948 | _____ | _____ |
| 16. Exhibits | 20,000 | _____ | _____ |
| 17. Social Functions | 152,655 | _____ | _____ |
| 18. Administration | 260,650 | _____ | _____ |
| 19. All Other Conference Expenses | 140,315 | _____ | _____ |
| 20. Total Conference Expense | 1,050,827 | _____ | _____ |
| 21. Loan Repayments | _____ | _____ | _____ |
| 22. Total Outlays | \$ 1,050,827 | \$ _____ | \$ _____ |

SURPLUS / (LOSS)

23. Total Receipts (13) \$ 1,163,850 24. Total Outlays (22) \$ 1,050,827
 25. Surplus (Loss)-(Item 23 less Item 24) \$ 113,023

POST CONFERENCE DISTRIBUTION

Surplus (Loss) in Item 25 to be distributed as follows:

| Cosponsor Entity | % Share | \$ Distributed |
|----------------------------------|------------|----------------|
| a. <u>Neural Network Council</u> | <u>95%</u> | _____ |
| b. <u>Orlando Section, IEEE</u> | <u>5%</u> | _____ |
| c. _____ | _____ | _____ |
| d. _____ | _____ | _____ |
| Surplus (Loss) | | \$ _____ |

CONFERENCE FINANCIAL INSTITUTION

Name of Bank National Westminster Bank NJ
 Address One Springfield Avenue, Newark, New Jersey 07103
 Conference Account Title IEEE-WCCI'94 Account No. 14-11-92027

Have you requested IEEE Conference Insurance? Yes No

SUBMITTED BY:

Name Swamy Laxminarayan Tel No () 201-982-6775
 Address University of Medicine & Dentistry, 185 So. Orange Ave, Newark, NJ 07103
 Conference Position Finance Director

CONFERENCE SIGNATURE [Signature] SOCIETY SIGNATURE _____ Date _____

RETURN TO: IEEE CONFERENCE SERVICES
 445 HOES LANE, P.O. BOX 1331, PISCATAWAY, N.J. 08855-1331, U.S.A.
 KEEP A COPY FOR YOUR RECORDS

1993 IEEE Neural Networks Council Document
 Robert J. Marks II Library Archive
IEEE TECHNICAL ACTIVITIES
 IEEE CONFERENCE INFORMATION SCHEDULE

See reverse side for instructions on how to complete this form

CONFERENCE

1. Full Title of Conference 1994 World Congress on Computational Intelligence
 2. Dates of Conference June 26, - July 2, 1994
 3. Location of Conference (full name and address) Walt Disney World Dolphin Hotel, 1500 EpCot Resort Blvd., Lake Buena Vista, Florida 32830
 4. Estimated Attendance _____ 5. Exhibits Yes No
 6. Will there be a Conference Publication? Yes No
 If yes, check one: Conference Record Other (explain) _____

7. Identify IEEE entity(s) involved as either Sponsor, Co-Sponsor, Participating or Cooperating and the percentage of involvement. These terms are defined on the reverse side.

| | Type of Involvement | | | | Percentage |
|--------------------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|--------------|
| | S | CS | P | C | |
| Entity <u>Neural Network Council</u> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | % <u>95%</u> |
| Entity <u>Orlando Section, IEEE</u> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | % <u>5%</u> |
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | % _____ |
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | % _____ |

Identify Non-IEEE entity(s) involved and the percentage of involvement:

| | | | | | |
|--------------|--------------------------|--------------------------|--------------------------|--------------------------|---------|
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | % _____ |
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | % _____ |

8. Has the section within whose geographical boundaries the Conference is being held been notified? Yes No

If yes, who was contacted? M.A. Atashroo, Chair Orlando (407) 539-0465
 Name Section

9. Has an IEEE Conference Insurance Form been submitted? Yes No

ADMINISTRATION

For the following Conference officers, enter first name, middle initial and last name, plus complete address and telephone number.

CONFERENCE CHAIRMAN Charles J. Robinson DSC, PE Tel.No. 412-624-8940
 Address School of Health and Rehabilitation Professions, 107B Pennsylvania Hall, University of Pittsburgh, PA 15261 Fax.No. 412-624-8504

INFORMATION CONTACT Meeting Management (Nomi Feldman/Steve Marlin) Tel.No. 619-453-6222
 Address 5665 Oberlin Drive, Suite 110, San Diego, California 92121 Fax.No. 619-535-3880

COMMITTEE MEMBERS

If available, please attach to this form a complete list of Conference Committee members, their titles, addresses, and telephone numbers.

SUBMITTED BY: Swamy Laxminarayan Tel.No. 201-982-6775
 Address University of Medicine & Dentistry, Academic Computing, 185 So. Orange Avenue, Newark, New Jersey 07103 Fax.No. 201-982-7668
 Conference Position Finance Director

SIGNATURE _____ Date _____

RETURN TO: IEEE CONFERENCE SERVICES
 445 HOES LANE, P.O. BOX 1331, PISCATAWAY, N.J. 08855-1331, U.S.A.
 FAX: (908) 562-1571
 KEEP A COPY FOR YOUR RECORDS



IEEE TECHNICAL ACTIVITIES
 IEEE CONFERENCE DETAILED FINANCIAL REPORT - PART I: INCOME

This form should be completed only for IEEE sponsored or cosponsored Conferences. The care taken in filling out this report will lead to a more accurate projection of your Conference's net surplus or loss.

NOTE: All income items may be expressed in either U.S. Dollars or in local currency.

Full title of Conference 1994 World Congress on Computational Intelligence
 Dates of Conference June 26, - July 2, 19

INCOME

REGISTRATION FEES

| | Quantity | Fee | = | Budget | Interim Report | Final Report |
|----------------------------|----------|--------------|---|-----------|----------------|--------------|
| In Advance-Members | x | | = | \$ | \$ | \$ |
| In Advance-Nonmembers | x | | = | | | |
| In Advance-Reduced Rate | x | | = | | | |
| At Conference-Members | x | | = | | | |
| At Conference-Nonmembers | x | | = | | | |
| At Conference-Reduced Rate | x | | = | | | |
| Total Registrants | | Total | | \$ | \$ | \$ |

CONFERENCE PUBLICATION SALES

| | | | | | | |
|---------------------|----------|--------------|---|-----------|-----------|-----------|
| To Members | x | | = | \$ | \$ | \$ |
| To Nonmembers | x | | = | | | |
| To IEEE Hq. | x | | = | | | |
| Total Copies | x | Total | | \$ | \$ | \$ |

EXHIBITS

| | | | | | | |
|--------|---|--------------|---|-----------|-----------|-----------|
| Tables | x | | = | \$ | \$ | \$ |
| Booths | x | | = | | | |
| Booths | x | | = | | | |
| | x | | = | | | |
| | | Total | | \$ | \$ | \$ |

SOCIAL FUNCTIONS

(Itemize by event on separate sheets.)

| | | | | | | |
|--------------|--|--------------|--|-----------|-----------|-----------|
| Total | | Total | | \$ | \$ | \$ |
|--------------|--|--------------|--|-----------|-----------|-----------|

ALL OTHER (List here or attach details.)

| | | | | | | |
|--|--|---------------------|--|-----------|-----------|-----------|
| | | | | \$ | \$ | \$ |
| | | | | | | |
| | | | | | | |
| | | Total | | \$ | \$ | \$ |
| | | TOTAL INCOME | | \$ | \$ | \$ |

NOTE: BE SURE TO COMPLETE AND RETURN ALL FINANCIAL FORMS TOGETHER ("SUMMARY REPORT", "PART I: INCOME", "PART II: EXPENSE" AND "SOCIAL FUNCTIONS").

RETURN TO: IEEE CONFERENCE SERVICES
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IEEE TECHNICAL ACTIVITIES
IEEE CONFERENCE DETAILED FINANCIAL REPORT - PART II: EXPENSE

This form should be completed only for IEEE sponsored or cosponsored Conferences. The care taken in filling out this report will lead to a more accurate projection of your Conference's net surplus or loss.

NOTE: All expense items may be expressed in either U.S. Dollars or in local currency.

Full title of Conference 1994 World Congress on Computational Intelligence
Dates of Conference June 26th. - July 2, 1994

| PROMOTION | Budget | Interim Report | Final Report |
|--|---------------|-----------------------|---------------------|
| Printing/Call for Papers | \$ _____ | \$ _____ | \$ _____ |
| Printing/Advance Program | _____ | _____ | _____ |
| Printing/Final Program | _____ | _____ | _____ |
| Mailing Lists/Labels | _____ | _____ | _____ |
| Postage | _____ | _____ | _____ |
| Other _____ | _____ | _____ | _____ |
| Total | \$ _____ | \$ _____ | \$ _____ |
| CONFERENCE PUBLICATION | | | |
| Conference Record/Digest Printing | \$ _____ | \$ _____ | \$ _____ |
| Author Kits Printing | _____ | _____ | _____ |
| Shipping to Site and IEEE Hq. | _____ | _____ | _____ |
| Total | \$ _____ | \$ _____ | \$ _____ |
| EXHIBITS (Attach detailed statement of all expenses necessary to mount and display exhibits.) | | | |
| Total | \$ _____ | \$ _____ | \$ _____ |
| SOCIAL FUNCTIONS (Itemize event on separate sheets.) | | | |
| Total | \$ _____ | \$ _____ | \$ _____ |
| ADMINISTRATION | | | |
| Insurance & Bonding | \$ _____ | \$ _____ | \$ _____ |
| Security & Guard Service | _____ | _____ | _____ |
| Function Equip. Rent & Operator | _____ | _____ | _____ |
| Management, Secretarial Services | _____ | _____ | _____ |
| Office Equip. Rental | _____ | _____ | _____ |
| Printing forms, Tickets, Stationery, Etc. | _____ | _____ | _____ |
| Posters, Signs, Badges, Etc. | _____ | _____ | _____ |
| Telephone | _____ | _____ | _____ |
| Transportation | _____ | _____ | _____ |
| Gratuities, Etc. (Attach Details) | _____ | _____ | _____ |
| Total | \$ _____ | \$ _____ | \$ _____ |
| ALL OTHER | | | |
| Committee Expenses | \$ _____ | \$ _____ | \$ _____ |
| Other (Attach Details) | _____ | _____ | _____ |
| Total | \$ _____ | \$ _____ | \$ _____ |
| TOTAL EXPENSES | \$ _____ | \$ _____ | \$ _____ |

CURRENCY

State here the currency utilized in above computations, e.g., U.S. Dollars, Swiss Francs, etc.

Currency utilized: _____

In the event a currency other than the U.S. Dollar is utilized, it will be necessary to convert to U.S. Dollars - at the current conversion rate - when submitting your final Summary Financial Report to IEEE.

SUBMITTED BY:

Name _____ Tel. No. (____) _____

Address _____

Conference Position _____

SIGNATURE _____

Date _____

PLEASE BE SURE TO COMPLETE AND RETURN ALL FINANCIAL FORMS TOGETHER ("SUMMARY REPORT", "PART I: INCOME", "PART II: EXPENSE" AND "SOCIAL FUNCTIONS").

RETURN TO: IEEE CONFERENCE SERVICES
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SOCIAL FUNCTIONS

- 1) Coffee, pastries, etc., between sessions
No. Breaks ___ X No. people ___ X \$/person _____ \$ _____ \$ _____

- (2) Luncheons
No. Luncheons ___ X No. people ___ X \$/person _____ \$ _____ \$ _____

- (3) Receptions
No. Receptions ___ X No. people X \$/person _____ \$ _____ \$ _____

- (4) Banquets
No. Banquets ___ X No. people X \$/person _____ \$ _____ \$ _____

- (5) Speakers Hospitality
No. people X \$/person _____ \$ _____ \$ _____

- (6) Transportation (courtesy bus, etc.)..... \$ _____ \$ _____

Companies providing chartered bus services must submit proof of a current and valid certificate of insurance during the dates of the event with coverage of at least 1 million dollars. A copy of this certificate should be submitted with the IEEE Conference Insurance form. IEEE Insurance coverage does not cover boat or air transportation.

- (7) Other social functions expenses (specific)..... \$ _____ \$ _____

TOTAL SOCIAL FUNCTION EXPENSES \$ _____ \$ _____

SOCIAL COST PER ATTENDEE \$ _____ \$ _____

NOTE: BE SURE TO COMPLETE AND RETURN ALL FINANCIAL FORMS TOGETHER ("PART I: INCOME", "PART II: EXPENSE", "SOCIAL FUNCTIONS" AND "SUMMARY REPORT").

RETURN TO: IEEE CONFERENCE SERVICES
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IEEE TECHNICAL ACTIVITIES

SUMMARY FINANCIAL REPORT FOR IEEE SPONSORED OR COSPONSORED CONFERENCES
See reverse side for instructions on how to complete this form

CONFERENCE

1. Full title of Conference IEEE World Congress on Computational Intelligence (Congress portion only)
2. Dates of Conference June 26, -July 2, 1994
3. Location of Conference (full name and address) Walt Disney World Dolphin Hotel, 1500 EpCot Resort Blvd, Lake Buena Vista, Florida 32830

TYPE OF REPORT / CURRENCY USED

4. Indicate type of report by checking one box:
 Budget Interim Report Final Report
5. All income and expense figures below must in U.S. Dollars. For Conferences held outside the U.S.A., indicate here the local currency (e.g., Swiss Francs) and the conversion rate used (local currency units per 1 U.S. Dollar) and date.
Local currency: U.S. Dollars Conversion rate: _____ Date of Conversion rate: _____

| | Budget | Interim Report | Final Report |
|-----------------------------------|------------|----------------|--------------|
| 6. Registration Fees | \$ 15,000 | \$ _____ | \$ _____ |
| 7. Conference Publication Sales | 12,000 | _____ | _____ |
| 8. Exhibits | 54,000 | _____ | _____ |
| 9. Social Functions | 3,000 | _____ | _____ |
| 10. All Other Conference Receipts | 180,000 | _____ | _____ |
| 11. Total Conference Income | 264,000 | _____ | _____ |
| 12. Conference Loans | 0 | _____ | _____ |
| 13. Total Receipts | \$ 264,000 | \$ _____ | \$ _____ |

| | Budget | Interim Report | Final Report |
|-----------------------------------|------------|----------------|--------------|
| Promotion | \$ 141,983 | \$ _____ | \$ _____ |
| Conference Publications | 4,608 | _____ | _____ |
| 16. Exhibits | 20,000 | _____ | _____ |
| 17. Social Functions | 13,620 | _____ | _____ |
| 18. Administration | 69,933 | _____ | _____ |
| 19. All Other Conference Expenses | 78,265 | _____ | _____ |
| 20. Total Conference Expense | 328,459 | _____ | _____ |
| 21. Loan Repayments | _____ | _____ | _____ |
| 22. Total Outlays | \$ 328,459 | \$ _____ | \$ _____ |

SURPLUS / (LOSS)
23. Total Receipts (13) \$ 264,000 24. Total Outlays (22) \$ 328,459
25. Surplus (Loss) - (Item 23 less Item 24) \$ (64,459)*

* This loss is only a paper loss as this meeting is coexistent with 3 others
POST CONFERENCE DISTRIBUTION Surplus (Loss) in Item 25 to be distributed as follows:
Cosponsor Entity % Share \$ Distributed
a. Neural Network 95% _____
b. Orlando 5% _____
c. _____ _____ _____
d. _____ _____ _____
Surplus (Loss) \$ _____

CONFERENCE FINANCIAL INSTITUTION
Name of Bank National Westminster Bank NJ
Address One Springfield Avenue, Newark, New Jersey 07103
Conference Account Title IEEE-WCCI'94 Account No. 14-11-92027
Have you requested IEEE Conference Insurance? Yes No

SUBMITTED BY:
Name Swamy Laxminarayan Tel. No. () 201-982-6775
Address University of Medicine & Dentistry, 185 So. Orange Avenue Newark, NJ 07103
Conference Position Finance Director

CONFERENCE SIGNATURE [Signature] SOCIETY SIGNATURE _____ Date _____

RETURN TO: IEEE CONFERENCE SERVICES
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IEEE TECHNICAL ACTIVITIES
 IEEE CONFERENCE INFORMATION SCHEDULE

See reverse side for instructions on how to complete this form

CONFERENCE

1. Full Title of Conference IEEE World Congress on Computational Intelligence
 2. Dates of Conference June 26, - July 2, 1994
 3. Location of Conference (full name and address) Walt Disney World Dolphin Hotel, 1500 Epcot Resort Blvd.
 Lake Buena Vista, Florida 32830
 4. Estimated Attendance _____ 5. Exhibits Yes No
 6. Will there be a Conference Publication? Yes No
 If yes, check one: Conference Record Other (explain) _____
 7. Identify IEEE entity(s) involved as either Sponsor, Co-Sponsor, Participating or Cooperating and the percentage of involvement. These terms are defined on the reverse side.

| | Type of Involvement | | | | Percentage |
|-------------------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|-------------|
| | S | CS | P | C | |
| Entity <u>Orlando Section -IEEE</u> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | % <u>5%</u> |
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | % _____ |
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | % _____ |
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | % _____ |

Identify Non-IEEE entity(s) involved and the percentage of involvement:
 Entity _____ S CS P C % _____
 Entity _____ S CS P C % _____

8. Has the section within whose geographical boundaries the Conference is being held been notified? Yes No

If yes, who was contacted? _____
 Name Section

Has an IEEE Conference Insurance Form been submitted? Yes No

ADMINISTRATION

For the following Conference officers, enter first name, middle initial and last name, plus complete address and telephone number.

CONFERENCE CHAIRMAN Charles J. Robinson DSC, PE Tel.No. 412-624-8945
 Address School of Health and Rehabilitation Professions, 107B Pennsylvania Hall, University
 of Pittsburgh, Pittsburgh, PA 15261 Fax.No. 412-624-8504

INFORMATION CONTACT Meeting Management (Nomi Feldman/Steve Marlin) Tel.No. 619-453-6222
 Address 5665 Oberlin Drive, Suite 110, San Diego, California 92121 Fax.No. 619-535-3880

COMMITTEE MEMBERS

If available, please attach to this form a complete list of Conference Committee members, their titles, addresses, and telephone numbers.

SUBMITTED BY: Swamy Laxminarayan Tel.No. 201-082-6775
 Address 185 So. Orange Avenue, Newark, New Jersey 07013 - University of Medicine & Dentistry
 Academic Computing Fax.No. 201-982-7668
 Conference Position Finance Director

SIGNATURE _____ Date _____

RETURN TO: IEEE CONFERENCE SERVICES
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 FAX: (908) 562-1571
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IEEE TECHNICAL ACTIVITIES
 IEEE CONFERENCE DETAILED FINANCIAL REPORT - PART I: INCOME

This form should be completed only for IEEE sponsored or cosponsored Conferences. The care taken in filling out this report will lead to a more accurate projection of your Conference's net surplus or loss.

NOTE: All income items may be expressed in either U.S. Dollars or in local currency.

Full title of Conference IEEE World Congress on Computational Intelligence

Dates of Conference June 26 - July 2, 1994

INCOME

| REGISTRATION FEES | Quantity | Fee | = | Budget | Interim Report | Final Report |
|--|------------|--------------|---|-------------------|----------------|--------------|
| In Advance-Members | x | _____ | = | \$ _____ | \$ _____ | \$ _____ |
| In Advance-Nonmembers | x | _____ | = | _____ | _____ | _____ |
| In Advance-Reduced Rate | x | _____ | = | _____ | _____ | _____ |
| At Conference-Members | x | _____ | = | _____ | _____ | _____ |
| At Conference-Nonmembers | x | _____ | = | _____ | _____ | _____ |
| At Conference-Reduced Rate | 100 | x 150 | = | 15,000 | _____ | _____ |
| Total Registrants | <u>100</u> | Total | = | <u>\$ 15,000</u> | \$ _____ | \$ _____ |
| | | | | | | |
| CONFERENCE PUBLICATION SALES | | | | | | |
| To Members | 50 | x 30 | = | \$ 1,500 | \$ _____ | \$ _____ |
| To Nonmembers | 50 | x 30 | = | 1,500 | _____ | _____ |
| To IEEE Hq. | 300 | x 30 | = | 9,000 | _____ | _____ |
| Total Copies | <u>400</u> | Total | = | <u>\$ 12,000</u> | \$ _____ | \$ _____ |
| | | | | | | |
| EXHIBITS | | | | | | |
| Tables | x | _____ | = | \$ _____ | \$ _____ | \$ _____ |
| Booths | x | _____ | = | _____ | _____ | _____ |
| Booths | x | _____ | = | _____ | _____ | _____ |
| | x | _____ | = | _____ | _____ | _____ |
| Total | | | | \$ <u>54,000</u> | \$ _____ | \$ _____ |
| | | | | | | |
| SOCIAL FUNCTIONS | | | | | | |
| (Itemize by event on separate sheets.) | | | | \$ 3,000 | \$ _____ | \$ _____ |
| Total | | | | <u>\$ 3,000</u> | \$ _____ | \$ _____ |
| | | | | | | |
| ALL OTHER (List here or attach details.) | | | | | | |
| Tutorials | | | | \$ 165,000 | \$ _____ | \$ _____ |
| Donations/Grants | | | | 15,000 | _____ | _____ |
| | | | | _____ | _____ | _____ |
| Total | | | | <u>\$ 180,000</u> | \$ _____ | \$ _____ |
| TOTAL INCOME | | | | <u>\$ 264,000</u> | \$ _____ | \$ _____ |

NOTE: BE SURE TO COMPLETE AND RETURN ALL FINANCIAL FORMS TOGETHER ("SUMMARY REPORT", "PART I: INCOME", "PART II: EXPENSE" AND "SOCIAL FUNCTIONS").

RETURN TO: IEEE CONFERENCE SERVICES
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IEEE TECHNICAL ACTIVITIES
IEEE CONFERENCE DETAILED FINANCIAL REPORT - PART II: EXPENSE

This form should be completed only for IEEE sponsored or cosponsored Conferences. The care taken in filling out this report will lead to more accurate projection of your Conference's net surplus or loss.

NOTE: All expense items may be expressed in either U.S. Dollars or in local currency.

Full title of Conference IEEE World Congress on Computational Intelligence

Dates of Conference June 26 - July 2, 1994

| PROMOTION | Budget | Interim Report | Final Report |
|--|-------------------|-----------------|-----------------|
| Printing/Call for Papers | \$ 18,000 | \$ _____ | \$ _____ |
| Printing/Advance Program | 9,500 | _____ | _____ |
| Printing/Final Program | 9,500 | _____ | _____ |
| Mailing Lists/Labels | 2,300 | _____ | _____ |
| Postage | 39,500 | _____ | _____ |
| Other <u>Brochures /Posters</u> | 63,233 | _____ | _____ |
| Total | \$ 142,033 | \$ _____ | \$ _____ |
| CONFERENCE PUBLICATION | | | |
| Conference Record/Digest Printing | \$ 2,808 | \$ _____ | \$ _____ |
| Author Kits Printing | _____ | _____ | _____ |
| Shipping to Site and IEEE Hq. | 1,800 | _____ | _____ |
| Total | \$ 4,608 | \$ _____ | \$ _____ |
| EXHIBITS (Attach detailed statement of all expenses necessary to mount and display exhibits.) | | | |
| Total | \$ 20,000 | \$ _____ | \$ _____ |
| SOCIAL FUNCTIONS (Itemize event on separate sheets.) | | | |
| Total | \$ 13,620 | \$ _____ | \$ _____ |
| ADMINISTRATION | | | |
| Insurance & Bonding | \$ 400 | \$ _____ | \$ _____ |
| Security & Guard Service | 4,000 | _____ | _____ |
| Audio/Video Equip. Rent & Operator | 2,100 | _____ | _____ |
| Management, Secretarial Services | 26,013 | _____ | _____ |
| Office Equip. Rental | 10,000 | _____ | _____ |
| Printing forms, Tickets, Stationery, Etc. | 6,000 | _____ | _____ |
| Posters, Signs, Badges, Etc. | 7,500 | _____ | _____ |
| Telephone | 1,000 | _____ | _____ |
| Transportation | 10,000 | _____ | _____ |
| Gratuities, Etc. (Attach Details) | 2,920 | _____ | _____ |
| Total | \$ 69,933 | \$ _____ | \$ _____ |
| ALL OTHER | | | |
| Committee Expenses | \$ 5,715 | \$ _____ | \$ _____ |
| Other (Attach Details) <u>Symposium & Tutorials</u> | 72,550 | _____ | _____ |
| Total | \$ 78,265 | \$ _____ | \$ _____ |
| TOTAL EXPENSES | \$ 328,459 | \$ _____ | \$ _____ |

CURRENCY

State here the currency utilized in above computations, e.g., U.S. Dollars, Swiss Francs, etc.

Currency utilized: U.S. Dollars

In the event a currency other than the U.S. Dollar is utilized, it will be necessary to convert to U.S. Dollars - at the current conversion rate - when submitting your final Summary Financial Report to IEEE.

SUBMITTED BY:

Name Swamy Laxminarayan

Tel. No. (201) 982-6775

Address University of Medicine & Dentistry of New Jersey, 185 So. Orange Ave. Newark, NJ 07103

Conference Position Finance Director

SIGNATURE

[Handwritten Signature] Date May 8 93

BE SURE TO COMPLETE AND RETURN ALL FINANCIAL FORMS TOGETHER ("SUMMARY REPORT", "PART I: INCOME", "PART II: EXPENSE" AND "SOCIAL FUNCTIONS").

RETURN TO: IEEE CONFERENCE SERVICES
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SOCIAL FUNCTIONS

- (1) Coffee, pastries, etc., between sessions
No. Breaks X No. people X \$/person _____ \$ 120 \$ _____
- (2) Luncheons
No. Luncheons X No. people X \$/person _____ \$ _____ \$ _____
- (3) Receptions
No. Receptions X No. people X \$/person _____ \$ 12,000 \$ _____
- (4) Banquets
No. Banquets X No. people X \$/person _____ \$ _____ \$ _____
- (5) Speakers Hospitality
No. people X \$/person _____ \$ _____ \$ _____
- (6) Transportation (courtesy bus, etc.).....\$ 1,500 \$ _____

Companies providing chartered bus services must submit proof of a current and valid certificate of insurance during the dates

the event with coverage of at least 1 million dollars. A copy of this certificate should be submitted with the IEEE Conference Insurance form. IEEE Insurance coverage does not cover boat or air transportation.

- (7) Other social functions expenses (specific).....\$ _____ \$ _____
- _____
- _____
- _____

TOTAL SOCIAL FUNCTION EXPENSES \$ 13,620 \$ _____

SOCIAL COST PER ATTENDEE \$ _____ \$ _____

NOTE: BE SURE TO COMPLETE AND RETURN ALL FINANCIAL FORMS TOGETHER ("PART I: INCOME", "PART II: EXPENSE", "SOCIAL FUNCTIONS" AND "SUMMARY REPORT").

RETURN TO: IEEE CONFERENCE SERVICES
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ACCURATE AUTOMATION CORPORATION



7001 SHALLOWFORD ROAD
CHATTANOOGA, TN 37421
(615)894-4646 • FAX (615)894-4645

FACSIMILE TRANSMITTAL SHEET

DATE: Aug 17, 1993 TIME: 12:45

TO: Dr. Swamy Laxminarayan

FROM: _____

NUMBER OF PAGES FOLLOWING THIS SHEET 12

NOTES:

IF YOU DO NOT CALL WITHIN 15 MINUTES, WE WILL ASSUME YOU HAVE RECEIVED THE PAGES SATISFACTORILY.

ACCURATE AUTOMATION CORPORATION



7001 Shallowford Road
Chattanooga, Tennessee 37421
(615) 894-4646 • FAX (615) 894-4645

Aug 17, 1993

Swamy,

Here's the package I sent to
Marion DeWald @ IEEE headquarters.
If you need more please call.

Kevin

ACCURATE AUTOMATION CORPORATION



7001 Shallowford Road
Chattanooga, Tennessee 37421
(615) 894-4646 • FAX (615) 894-4645

IEEE Service Center
Attention: Ms. Marion DeWald
445 Hoes Lane
P.O. Box 1331
Piscataway, NJ 08855-1331

June 17, 1993

Dear Ms. DeWald

I have enclosed the IEEE Technical Activities forms (4 total), the IEEE request for insurance and the social functions form for the International Conference on Neural Networks - '94. This is my first attempt at being a treasurer for a conference so please be patient. I can be reached at work: (615)894-4646 or at home: (615)877-7550 or by FAX: (615)894-4645. Thankyou for your assistance concerning getting money into our conference account.

Sincerely,

Kevin L. Priddy
Treasurer



IEEE TECHNICAL ACTIVITIES

SUMMARY FINANCIAL REPORT FOR IEEE SPONSORED OR COSPONSORED CONFERENCES
See reverse side for instructions on how to complete this form

CONFERENCE

1. Full title of Conference International Conference on Neural Networks
2. Dates of Conference June 26th.-July 2, 1993
3. Location of Conference (full name and address) Walt Disney World Dolphin Hotel, 1500 Epcot Resort Blvd, Lake Buena Vista, Florida 32830

TYPE OF REPORT / CURRENCY USED

4. Indicate type of report by checking one box:
 Budget Interim Report Final Report
5. All income and expense figures below must in U.S. Dollars. For Conferences held outside the U.S.A., indicate here the local currency (e.g., Swiss Francs) and the conversion rate used (local currency units per 1 U.S. Dollar) and date.
Local currency: U.S. Dollars Conversion rate: _____ Date of Conversion rate: _____

INCOME

| | Budget | Interim Report | Final Report |
|-----------------------------------|------------|----------------|--------------|
| 6. Registration Fees | \$ 378,000 | \$ _____ | \$ _____ |
| 7. Conference Publication Sales | 65,200 | _____ | _____ |
| 8. Exhibits | _____ | _____ | _____ |
| 9. Social Functions | 750 | _____ | _____ |
| 10. All Other Conference Receipts | 7,500 | _____ | _____ |
| 11. Total Conference Income | 451,450 | _____ | _____ |
| 12. Conference Loans | 0 | _____ | _____ |
| 13. Total Receipts | \$ 451,450 | \$ _____ | \$ _____ |

PENSE

| | Budget | Interim Report | Final Report |
|-----------------------------------|------------|----------------|--------------|
| 14. Promotion | \$ 55,547 | \$ _____ | \$ _____ |
| 15. Conference Publications | 97,500 | _____ | _____ |
| 16. Exhibits | _____ | _____ | _____ |
| 17. Social Functions | 69,850 | _____ | _____ |
| 18. Administration | 89,167 | _____ | _____ |
| 19. All Other Conference Expenses | 30,000 | _____ | _____ |
| 20. Total Conference Expense | 342,064 | _____ | _____ |
| 21. Loan Repayments | - | _____ | _____ |
| 22. Total Outlays | \$ 342,064 | \$ _____ | \$ _____ |

SURPLUS / (LOSS)

23. Total Receipts (13) \$ 451,450 24. Total Outlays (22) \$ 342,064
25. Surplus (Loss)-(Item 23 less Item 24) \$ 109,386

POST CONFERENCE DISTRIBUTION

| Cosponsor Entity | Surplus (Loss) in Item 25 to be distributed as follows: | |
|-------------------------|---|----------------|
| | % Share | \$ Distributed |
| a. Neural Net | 95% | _____ |
| b. IEEE Orlando Section | 5% | _____ |
| c. _____ | _____ | _____ |
| d. _____ | _____ | _____ |
| | Surplus (Loss) | \$ _____ |

CONFERENCE FINANCIAL INSTITUTION

Name of Bank First Tennessee Bank
Address 701 Market St. Chattanooga, TN 37415-2076
Conference Account Title IEEE ICNN 94 Account No. 004-333-295

Have you requested IEEE Conference Insurance? Yes No

SUBMITTED BY:

Name Kevin L. Priddy Tel. No. (615-894-4646
Address Accurate Automation Corporation, 7001 Shallowford Rd. Chattanooga,
Conference Position Finance Chairman TN 37409

CONFERENCE SIGNATURE Kevin L. Priddy SOCIETY SIGNATURE _____ Date June 17, 1993



IEEE TECHNICAL ACTIVITIES
 IEEE CONFERENCE DETAILED FINANCIAL REPORT - PART I: INCOME

This form should be completed only for IEEE sponsored or cosponsored Conferences. The care taken in filling out this report will lead to a more accurate projection of your Conference's net surplus or loss.

NOTE: All income items may be expressed in either U.S. Dollars or in local currency.

Full title of Conference International Conference on Neural Networks

Dates of Conference June 26,-July 2, 1994

INCOME

REGISTRATION FEES

| | Quantity | Fee | Budget | Interim Report | Final Report |
|----------------------------|-------------|--------------|-------------------|----------------|--------------|
| | 150 | X 350 | 52,500 | | |
| In Advance-Members | 75 | x 250 | = \$ 18,750 | \$ | \$ |
| In Advance-Nonmembers | 150 | x 200 | = 30,000 | | |
| In Advance-Reduced Rate | 25 | x 70 | = 1,750 | | |
| At Conference-Members | 300 | x 425 | = 127,500 | | |
| At Conference-Nonmembers | 150 | x 495 | = 74,250 | | |
| At Conference-Reduced Rate | 100 | x 110 | = 11,000 | | |
| Total Registrants | 1100 | Total | \$ 378,000 | \$ | \$ |

CONFERENCE PUBLICATION SALES (Proceedings + CD Rom + Video)

| | | | | | |
|---------------------|----------|--------------|------------------|-----------|-----------|
| To Members | x | | = \$ 20,500 | \$ | \$ |
| To Nonmembers | x | | = 20,700 | | |
| To IEEE Hq. | 400 | x 60 | = 24,000 | | |
| Total Copies | x | Total | \$ 65,200 | \$ | \$ |

EXHIBITS

| | | | | | |
|--------------|---|--|-----------|-----------|-----------|
| Tables | x | | = \$ | \$ | \$ |
| Booths | x | | = | | |
| Booths | x | | = | | |
| Booths | x | | = | | |
| Total | | | \$ | \$ | \$ |

SOCIAL FUNCTIONS

(Itemize by event on separate sheets.)

| | | | |
|--------------|---------------|-----------|-----------|
| Total | \$ 750 | \$ | \$ |
|--------------|---------------|-----------|-----------|

ALL OTHER (List here or attach details.)

| | | | | |
|---------------------|--|-------------------|-----------|-----------|
| Tutorials | | \$ 7,500 | \$ | \$ |
| Donations | | | | |
| Total | | \$ 7,500 | \$ | \$ |
| TOTAL INCOME | | \$ 451,450 | \$ | \$ |

E: BE SURE TO COMPLETE AND RETURN ALL FINANCIAL FORMS TOGETHER ("SUMMARY REPORT", "PART I: INCOME", "PART II: EXPENSE" AND "SOCIAL FUNCTIONS").

RETURN TO: IEEE CONFERENCE SERVICES
 445 HOES LANE, P.O. BOX 1331, PISCATAWAY, N.J. 08855-1331, U.S.A.
 KEEP A COPY FOR YOUR RECORDS



IEEE TECHNICAL ACTIVITIES
IEEE CONFERENCE DETAILED FINANCIAL REPORT - PART II: EXPENSE

Form should be completed only for IEEE sponsored or cosponsored Conferences. The care taken in filling out this report will lead to a more accurate projection of your Conference's net surplus or loss.

NOTE: All expense items may be expressed in either U.S. Dollars or in local currency.

Full title of Conference International Conference on Neural Networks

Dates of Conference June 26th. - July 2, 1994

| PROMOTION | Budget | Interim Report | Final Report |
|--|-------------------|----------------|--------------|
| Printing/Call for Papers | \$ - | \$ | \$ |
| Printing/Advance Program | - | | |
| Printing/Final Program | - | | |
| Mailing Lists/Labels | - | | |
| Postage | - | | |
| Other <u>Brochures/Posters</u> | 55,547 | | |
| Total | \$ 55,547 | \$ | \$ |
| CONFERENCE PUBLICATION (Pro + CD + Video) | | | |
| Conference Record/Digest Printing | \$ 93,700 | \$ | \$ |
| Author Kits Printing | - | | |
| Shipping to Site and IEEE Hq. | 3,800 | | |
| Total | \$ 97,500 | \$ | \$ |
| EXHIBITS (Attach detailed statement of all expenses necessary to mount and display exhibits.) | | | |
| Total | \$ - | \$ | \$ |
| SOCIAL FUNCTIONS (Itemize event on separate sheets.) | | | |
| Total | \$ 69,850 | \$ | \$ |
| ADMINISTRATION | | | |
| Insurance & Bonding | \$ 400 | \$ | \$ |
| Security & Guard Service | - | | |
| Projection Equip. Rent & Operator | 13,100 | | |
| Management, Secretarial Services + Auditing | 61,607 | | |
| Office Equip. Rental | 4,500 | | |
| Printing forms, Tickets, Stationery, Etc. | 3,300 | | |
| Posters, Signs, Badges, Etc. | 0 | | |
| Telephone | 1,200 | | |
| Transportation | 2,500 | | |
| Gratuities, Etc. (Attach Details) - Volunteers | 2,560 | | |
| Total | \$ 89,167 | \$ | \$ |
| ALL OTHER | | | |
| Committee Expenses (Program Committee) | \$ 16,750 | \$ | \$ |
| Other (Attach Details)(Student Scholarships) | 13,250 | | |
| Total | \$ 30,000 | \$ | \$ |
| TOTAL EXPENSES | \$ 342,064 | \$ | \$ |

CURRENCY

State here the currency utilized in above computations, e.g., U.S. Dollars, Swiss Francs, etc.

Currency utilized: _____

In the event a currency other than the U.S. Dollar is utilized, it will be necessary to convert to U.S. Dollars - at the current conversion rate - when submitting your final Summary Financial Report to IEEE.

SUBMITTED BY:

Name Dr. Kevin L. Priddy

Tel. No. (615) 894-4646

Address Accurate Automation Corporation, 7001 Shallowford Road., Chattanooga, TN 37421

Conference Position Treasurer

SIGNATURE

Kevin L. Priddy

Date June 17, 1993

NOTE: BE SURE TO COMPLETE AND RETURN ALL FINANCIAL FORMS TOGETHER ("SUMMARY REPORT", "PART I: INCOME", "PART II: EXPENSE" AND "SOCIAL FUNCTIONS").

SOCIAL FUNCTIONS

| | | |
|---|------------------|----------|
| (1) Coffee, pastries, etc., between sessions No. Breaks <input type="checkbox"/> X No. people <input type="checkbox"/> X \$/person _____ | \$ <u>19,800</u> | \$ _____ |
| (2) Luncheons No. Luncheons <input type="checkbox"/> X No. people <input type="checkbox"/> X \$/person _____ | \$ _____ | \$ _____ |
| (3) Receptions No. Receptions <input type="checkbox"/> X No. people <input type="checkbox"/> X \$/person _____ | \$ <u>50,050</u> | \$ _____ |
| (4) Banquets No. Banquets <input type="checkbox"/> X No. people <input type="checkbox"/> X \$/person _____ | \$ _____ | \$ _____ |
| (5) Speakers Hospitality No. people X \$/person _____ | \$ _____ | \$ _____ |
| (6) Transportation (courtesy bus, etc.)..... | \$ _____ | \$ _____ |

Companies providing chartered bus services must submit proof of a current and valid certificate of insurance during the dates of the event with coverage of at least 1 million dollars. A copy of this certificate should be submitted with the IEEE Conference Insurance form. IEEE insurance coverage does not cover boat or air transportation.

| | | |
|---|----------|----------|
| (7) Other social functions expenses (specific)..... | \$ _____ | \$ _____ |
| _____ | | |
| _____ | | |
| _____ | | |

| | | |
|--------------------------------|----------------------|----------------------|
| TOTAL SOCIAL FUNCTION EXPENSES | \$ <u> </u> | \$ <u> </u> |
| SOCIAL COST PER ATTENDEE | \$ <u> </u> | \$ <u> </u> |

NOTE: BE SURE TO COMPLETE AND RETURN ALL FINANCIAL FORMS TOGETHER ("PART I: INCOME", "PART II: EXPENSE", "SOCIAL FUNCTIONS" AND "SUMMARY REPORT").

RETURN TO: IEEE CONFERENCE SERVICES
 445 HOES LANE, P.O. BOX 1331, PISCATAWAY, N.J. 08855-1331, U.S.A.
 KEEP A COPY FOR YOUR RECORDS



IEEE

REQUEST FOR CONFERENCE INSURANCE

Regions 1-6
(Conference Held in USA)

Conference Insurance Office
IEEE Service Center
445 Hoes Lane
P.O. Box 1331
Piscataway, NJ 08855-1331
(908) 981-0060 Ext. 5404
FAX (908) 981-0027

The following coverage is in effect for the conference dates listed below. The form must be completed in full and received by the Conference Insurance Office with a list of the conference officers and committee members at least 90 days prior to the start of the conference.

Conference Name International Conference on Neural Networks

Conference Dates June 26 - July 2, 1994

Conference Hotel or Center Walt Disney World Dolphin Hotel, 1500 Epcot Resort Blvd.

Conference Location (City, State & Zip Code) Lake Buena Vista, FL 32830

CONFERENCE IS FINANCIALLY CO-SPONSORED: Yes No

Co-Sponsor Name(s): _____

The coverage listed below (except In and Out Robbery) will be furnished to the conference at no direct charge except where additional coverage is requested.

BONDING: \$1,000,000 (\$2500 Deductible)
If more than \$1,000,000 is required, specify amount and attach explanation \$ _____

RENTAL OF EQUIPMENT: \$25,000 (\$250 Deductible)
If more than \$25,000 is required, specify amount and attach explanation \$ _____

LIABILITY & PROPERTY DAMAGE: \$1,000,000 and \$7,000,000 (No Deductible) umbrella liability.

LIMITED VOLUNTEER PERSONAL LIABILITY: \$1,000,000

A list of officer and committee members must accompany Request for Conference Insurance.

IN & OUT ROBBERY: (Optional - check box if desired): \$25,000 (\$2500 Deductible)

Note: There will be an approximate \$100 charge billed directly to the conference.

CONFERENCE WILL CHARTER: Bus Other (explain) _____

See special note regarding transportation rental.

CERTIFICATE OF INSURANCE

You may be required to furnish evidence of IEEE insurance to a third party. If so, indicate name and address of third party and their requirements. (Please type or print)

CONFERENCE CHAIRPERSON OR TREASURER - Please type or print the following information and sign this form.

Name Dr. Kevin L. Priddy

Conference Title Treasurer

Address Accurate Automation Corporation
7001 Shallowford Road
Chattanooga, TN 37421

Phone No. (615) 894-4646

Signature Kevin L. Priddy

Date June 17, 1993

7/1/92

(PLEASE MAKE A PHOTOCOPY AND RETAIN FOR YOUR RECORDS!)

FOR OFFICIAL USE ONLY

CONF DATE

| | | |
|-----|------|-----|
| | | |
| Mo. | Date | Yr. |

Date Rec'd _____

Date Ack _____

Off&Ctm List _____

Charter Cert _____

IN & OUT ROBBERY

- A&A Inv. Req. _____

- Inv. to Conf. _____

- Check to A&A _____

INSURANCE CLAIM

FILE COMPLETE



ACCURATE AUTOMATION CORPORATION

7001 Shallowford Road
Chattanooga, Tennessee 37421
(615) 894-4646 • FAX (615) 894-4645

University of Medicine and Dentistry
Dr. Swamy Laxminarayan
Rm. MSB A539
185 South Orange Ave.
Newark, NJ 07103

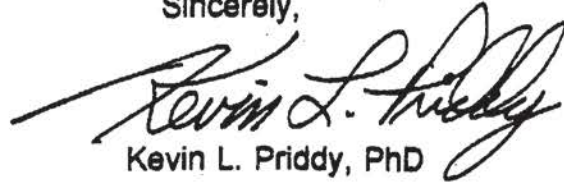
June 2, 1993

Swamy,

Here are the forms you asked Steve Rogers to fill out. We have complied as best we can. If you need him or me to sign anywhere please indicate where on the forms we need to sign and we will do so. As for the Society and Conference signatures we assume that you would take care of that with Charlie Robinson.

I can be reached at home at (615)877-7550 or at work (615)894-4646. My FAX number is (615)894-4645.

Sincerely,



Kevin L. Priddy, PhD

Kevin

Following actions are needed (See numbers on budget sheets)

- (1) your signature
- (2) Fill in the address of Meeting Management
- (3) your address & signature
- (4) your name and address
- (5) your signature
- (6) Fill in the entire insurance form and sign it at the bottom
- (7) Send ~~the~~ ~~to~~ ~~the~~ ~~meeting~~ all the material to Ms. Marion Dewald at the IEEE
- (8) please let me know ~~it~~ when all of this is



University of Medicine & Dentistry of New Jersey
New Jersey Medical School

185 South Orange Avenue
Newark, New Jersey 07103-2757

May 14, 1993

Dr. Steven K. Rogers
Air Force Institute of Technology
Dept. of Electrical & Computer Engineering
AFIT/ENG
WPAFB, Ohio 45433

Dear Steven:

Enclosed is a copy of the IEEE budget and Conference Insurance forms. Please complete and get the appropriate signatures. After completion, the forms are to be sent to the attention of, Ms. Marion DeWald, IEEE Service Center, 445 Hoes Lane, P.O. Box 1331, Piscataway, New Jersey, 08855-1331.

Also enclosed for your reference is a copy of the Consolidated Budget for 1994 World Congress on Computational Intelligence.

Sincerely,

A handwritten signature in black ink, appearing to read "Swamy", is written over the typed name.

Swamy Laxminarayan
Program Director & Clinical Associate Professor
Information Services & Technology
185 So. Orange Avenue, MSB Room A539
University Heights, Newark, NJ 07103-2714
Phone: 201-982-6775 Fax: 201-982-7668

SPECIAL NOTES—

Charter—In the event it is necessary to charter buses for transportation, be sure to obtain a Certificate of Insurance from the bus company indicating what coverages they carry for liability and property damage and indicating IEEE as the user. Forward this information to the Conference Insurance Office at the address shown on this form. Ascertain if bus company has umbrella or excess coverage.

Do not charter boats or planes in the name of IEEE. Rather than charter, try to get carrier to sell you tickets for use on the boat or plane. If this is not possible and a chartered boat or plane is necessary, you must obtain a Certificate of Insurance naming IEEE as an additional insured and forward the Certificate to IEEE. Try to get a minimum of \$1,000,000. IEEE will have our Insurance Consultant review all Certificates for adequacy and accuracy. Our Liability coverages do not apply to boats or planes.

The potential liability in a charter is very high, so please use extreme caution and call if you need further assistance.

Exhibits—If a Conference will have exhibits the following type of paragraph could be used in the exhibition contract:

"Loss or Damage...

Exhibitor agrees with IEEE that IEEE shall not be liable for any damage or liability of any kind or for any damage or injury to persons or property during the term of this agreement, from any cause whatsoever by reason of use, occupation and enjoyment of exhibit space by Exhibitor or any person thereon with the consent of Exhibitor and that Exhibitor will indemnify and save harmless IEEE from all liability whatsoever, on account of such damage, or injury, whether or not caused by negligence of or breach of an obligation by Exhibitor or its employees or representative."

You may want to obtain legal assistance locally to review your contract. If further assistance is needed, please call the Conference Insurance Office at (908) 562-5404

Certificates—At times you may be required to furnish evidence of IEEE insurance to a third party. Notify us of the complete circumstances and requirements and IEEE will attempt to obtain what you need. Usually there is no charge for this, but there are some peculiar conditions where a charge will be made.

Co-Sponsored Conferences—In order to be considered "Co-Sponsored," there must be significant financial involvement with an entity outside of IEEE. Obtain certificates of insurance from financial co-sponsors indicating what type and limits of coverages they carry. If IEEE controls 51% of the conference, it is easier to obtain coverage. Co-sponsored conferences are reviewed on an individual basis to determine if IEEE insurance will be furnished.

Incorporated—If a conference is separately incorporated, IEEE insurance will not apply. The conference must obtain its own coverage or contact the Conference Insurance Office for assistance in obtaining the required coverage.

Automatic Coverage—All coverages in Regions 1-6 are automatic except In & Out Robbery. You must request this coverage on the "Request for Conference Insurance" form. You will be billed separately for In & Out Robbery by our insurance brokers. All other charges will be allocated to all conferences by accounting charge to the conference sponsor.

Should you have any questions or wish information pertaining to additional coverage available, please contact the IEEE Conference Insurance Office.

CONFERENCE INSURANCE INFORMATION

These instructions are intended solely for the use of conference personnel. The explanation of insurance coverages relate specifically to their application for a conference and not for other activities of IEEE.

This conference insurance is available only for conferences held in the United States. Please read all notes carefully.

Conferences held in Regions outside of the United States are covered by other IEEE conference insurance. For details, write to the Conference Insurance Office, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854-4150 USA.

The insurance coverages obtained by IEEE protects the interests of IEEE and not necessarily the interests of individuals. Please review Limited Volunteer Liability Coverage for information pertaining to individual coverage.

AUTOMATIC COVERAGE

The coverages reviewed below (except In and Out Robbery) will be furnished to the conference for its scheduled dates upon receipt of the Request for Conference Insurance Form by the IEEE Conference Insurance Office at least 90 days in advance of the event. In and Out Robbery must be requested by checking the proper box on this form. If you elect to have In and Out Robbery, you will be billed separately by our insurance broker.

Bonding—

IEEE has a \$1,000,000 fidelity bond coverage for conference officers and personnel hired to process registration at a conference which covers loss through fraud or embezzlement. Coverage is provided from the time funds are first available to close of the conference's books. There is a \$2500 deductible for this coverage. Additional coverages can be obtained at an additional cost to the conference.

Rental of Equipment—

If you are renting or borrowing audio-visual equipment, typewriters, etc., and should any of this equipment be lost or stolen, then you will have \$25,000 worth of coverage, less a \$250 deductible. Additional coverages can be obtained at an additional cost to the conference.

Liability and Property Damage—

IEEE carries a \$1,000,000 limit policy that covers personal injury, death, and damage to property, real or personal. IEEE carries a \$7,000,000 umbrella policy. This covers only IEEE in the event of a suit and not individuals.

Limited Volunteer Liability Coverage—

This coverage is a part of our master Liability Policy and will cover all volunteers, officers and non-members who are engaged in management of an activity at a conference or meeting sponsored by an IEEE entity.

IEEE will protect the individual if sued because of their activity during a conference or meeting. This coverage will apply only during the term of the conference or meeting. *You must maintain a record of all officers and committee members who are actively engaged in the management of a conference or meeting. This list must accompany this application and be on file in the Conference Insurance Office.*

REQUESTED COVERAGE

In and Out Robbery—

This coverage is available on request and provides insurance in the event of a hold up or robbery at registration, or while the money is being taken to the bank by an individual. In some cases you may be able to make arrangements with the hotel to take your cash and give you a check that can be deposited in your bank. \$25,000 of coverage can be requested and obtained for a charge to the conference of approximately \$100. There is a \$2500 deductible.

IEEE TECHNICAL ACTIVITIES

IEEE CONFERENCE INFORMATION SCHEDULE

See reverse side for instructions on how to complete this form

CONFERENCE

1. Full Title of Conference International Conference on Neural Networks 2. Dates of Conference June 26th. - July 2, 1993

3. Location of Conference (full name and address) Walt Disney World Dolphin Hotel, 1500 Epcot Resort Blvd, Lake Buena Vista, Florida 32830

4. Estimated Attendance _____ 5. Exhibits Yes No

6. Will there be a Conference Publication? Yes No

If yes, check one: Conference Record Other (explain) _____

7. Identify IEEE entity(s) involved as either Sponsor, Co-Sponsor, Participating or Cooperating and the percentage of involvement. These terms are defined on the reverse side.

| Entity | Type of Involvement | | | | Percentage |
|--------------|--------------------------|--------------------------|--------------------------|--------------------------|------------|
| | S | CS | P | C | |
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | % _____ |
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | % _____ |
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | % _____ |
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | % _____ |

Identify Non-IEEE entity(s) involved and the percentage of involvement:

| | | | | | |
|--------------|--------------------------|--------------------------|--------------------------|--------------------------|---------|
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | % _____ |
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | % _____ |

Has the section within whose geographical boundaries the Conference is being held been notified? Yes No

If yes, who was contacted? _____
Name Section

9. Has an IEEE Conference Insurance Form been submitted? Yes No

ADMINISTRATION

For the following Conference officers, enter first name, middle initial and last name, plus complete address and telephone number.

CONFERENCE CHAIRMAN Dr. Steven K. Rogers Tel.No. 513-255-9266
Address Air Force Institute of Technology, Department of Electrical & Computer Engineering
AFIT/ENG, WPAFB, OH 45433 USA Fax.No. AV 785-9266

INFORMATION CONTACT Meeting Management Tel.No. (619)453-6222
Address 5665 Oberlin Drive, Suite 110
San Diego, CA 92121 Fax.No. _____

COMMITTEE MEMBERS

If available, please attach to this form a complete list of Conference Committee members, their titles, addresses, and telephone numbers.

SUBMITTED BY: Dr. Kevin L. Priddy Tel.No. (615)894-4646
Address Accurate Automation Corporation, 7001 Shallowford Road,
Chattanooga, TN 37421 Fax.No. (615)894-4645

Conference Position Treasurer

SIGNATURE Kevin L. Priddy Date June 17, 1993

RETURN TO: IEEE CONFERENCE SERVICES
445 HOES LANE, P.O. BOX 1331, PISCATAWAY, N.J. 08855-1331, U.S.A.
FAX: (908) 662-1571
KEEP A COPY FOR YOUR RECORDS



General Electric Company
P.O. Box 8, Schenectady, NY 12301

FAX NUMBER: 518/387-6845 (or Dial Com 8-833-6845)

Date: _____ TO FAX NO. (201) 982-7668

Please deliver to:

Prof Swami Laxminarayan

Tel. No. (201) 982-6775

MESSAGE:

From:

Piero Bonissone

Bldg. K-1, Room 5C32A

Tel. No. 518/387-5155

Dial Com: 8-833-

NUMBER OF PAGES INCLUDING LEAD SHEET: 7
__RESENDING



IEEE

REQUEST FOR CONFERENCE INSURANCE

Regions 1-6
(Conference Held in USA)

Conference Insurance Office
IEEE Service Center
445 Hoos Lane
P.O. Box 1331
Piscataway, NJ 08855-1331
(908) 981-0060 Ext. 5404
FAX (908) 981-0027

The following coverage is in effect for the conference dates listed below. The form must be completed in full and received by the Conference Insurance Office with a list of the conference officers and committee members at least 90 days prior to the start of the conference.

Conference Name IEEE FUZZ

Conference Dates June 26 - July 2, 1994

Conference Hotel or Center Walt Disney World Dolphin Hotel, 1500 Epcot Resort,

Conference Location (City, State & Zip Code) Blyd. Lake, Buena Vista, FL 32820

CONFERENCE IS FINANCIALLY CO-SPONSORED: Yes No

Co-Sponsor Name(s): Neural Network Council

The coverage listed below (except In and Out Robbery) will be furnished to the conference at no direct charge except where additional coverage is requested.

BONDING: \$1,000,000 (\$2500 Deductible)
If more than \$1,000,000 is required, specify amount and attach explanation \$ -

RENTAL OF EQUIPMENT: \$25,000 (\$250 Deductible)
If more than \$25,000 is required, specify amount and attach explanation \$ -

LIABILITY & PROPERTY DAMAGE: \$1,000,000 and \$7,000,000 (No Deductible) umbrella liability.

LIMITED VOLUNTEER PERSONAL LIABILITY: \$1,000,000

A list of officer and committee members must accompany Request for Conference Insurance.

IN & OUT ROBBERY: (Optional - check box if desired): \$25,000 (\$2500 Deductible)

Note: There will be an approximate \$100 charge billed directly to the conference.

CONFERENCE WILL CHARTER: Bus Other (explain) -

See special note regarding transportation rental.

CERTIFICATE OF INSURANCE

You may be required to furnish evidence of IEEE Insurance to a third party. If so, indicate name and address of third party and their requirements. (Please type or print)

CONFERENCE CHAIRPERSON OR TREASURER - Please type or print the following information and sign this form.

Name Piero P. Bonissone (Conference Chairman)

Conference Title IEEE FUZZ

Address General Electric CRD
Bldg K1, Room 5C32A, P.O. Box 8
Schenectady, NY 12301, USA

Phone No. (518) 387-5155

Signature Piero Bonissone

Date May 17, 1993

7/1/92

(PLEASE MAKE A PHOTOCOPY AND RETAIN FOR YOUR RECORDS)

| FOR OFFICIAL USE ONLY | | |
|---|----------------------|----------------------|
| CONF DATE | <input type="text"/> | <input type="text"/> |
| | Mo. | Date Yr. |
| Date Rec'd | _____ | |
| Date Ack | _____ | |
| Off&Ctm List | _____ | |
| Charter Cert. | _____ | |
| <input type="checkbox"/> IN & OUT ROBBERY | _____ | |
| - A&A Inv. Req. | _____ | |
| - Inv. to Conf. | _____ | |
| - Check to A&A | _____ | |
| <input type="checkbox"/> INSURANCE CLAIM | _____ | |
| <input type="checkbox"/> FILE COMPLETE | _____ | |



IEEE TECHNICAL ACTIVITIES

SUMMARY FINANCIAL REPORT FOR IEEE SPONSORED OR COSPONSORED CONFERENCES
 See reverse side for instructions on how to complete this form

CONFERENCE

1. Full title of Conference IEEE FUZZ
 2. Dates of Conference June 26th. - July 2, 1994
 3. Location of Conference (full name and address) Walt Disney World Dolphin Hotel, 1500 Epcot Resort Blvd. Lake Buena Vista, Florida 32830

TYPE OF REPORT / CURRENCY USED

4. Indicate type of report by checking one box:
 Budget Interim Report Final Report
 5. All income and expense figures below must in U.S. Dollars. For Conferences held outside the U.S.A., indicate here the local currency (e.g., Swiss Francs) and the conversion rate used (local currency units per 1 U.S. Dollar) and date.
 Local currency: U.S. Dollars Conversion rate: _____ Date of Conversion rate: _____

| INCOME | Budget | Interim Report | Final Report |
|-----------------------------------|------------|----------------|--------------|
| 6. Registration Fees | \$ 232,500 | \$ _____ | \$ _____ |
| 7. Conference Publication Sales | 55,600 | _____ | _____ |
| 8. Exhibits | 0 | _____ | _____ |
| 9. Social Functions | 750 | _____ | _____ |
| 10. All Other Conference Receipts | 6,000 | _____ | _____ |
| 11. Total Conference Income | 294,850 | _____ | _____ |
| 12. Conference Loans | _____ | _____ | _____ |
| 13. Total Receipts | \$ 294,850 | \$ _____ | \$ _____ |

| EXPENSE | Budget | Interim Report | Final Report |
|-----------------------------------|------------|----------------|--------------|
| 14. Promotion | \$ 46,522 | \$ _____ | \$ _____ |
| 15. Conference Publications | 68,600 | _____ | _____ |
| 16. Exhibits | _____ | _____ | _____ |
| 17. Social Functions | 45,055 | _____ | _____ |
| 18. Administration | 62,921 | _____ | _____ |
| 19. All Other Conference Expenses | 21,300 | _____ | _____ |
| 20. Total Conference Expense | 244,398 | _____ | _____ |
| 21. Loan Repayments | _____ | _____ | _____ |
| 22. Total Outlays | \$ 244,398 | \$ _____ | \$ _____ |

SURPLUS / (LOSS)
 23. Total Receipts (13) \$ 294,850 24. Total Outlays (22) \$ 244,398
 25. Surplus (Loss)-(Item 23 less item 24) \$ 50,452

POST CONFERENCE DISTRIBUTION Surplus (Loss) in Item 25 to be distributed as follows:

| Cosponsor Entity | % Share | \$ Distributed |
|--------------------------------|---------|----------------|
| a. <u>Neural Net</u> | 95% | _____ |
| b. <u>IEEE Orlando Section</u> | 5% | _____ |
| c. _____ | _____ | _____ |
| d. _____ | _____ | _____ |
| Surplus (Loss) | | \$ _____ |

CONFERENCE FINANCIAL INSTITUTION
 Name of Bank Wells Fargo Bank
 Address 721 Colorado Ave., Palo Alto, CA 94303
 Conference Account Title IEEE 1994 Third Conference on Fuzzy Systems Account No. 0582-033973
 Have you requested IEEE Conference Insurance? Yes No
SUBMITTED BY:
 Name Dr. Piero P. Bonissone Tel. No. () (518) 387-5155
 Address General Electric CRD, K1-5C32A, P.O. Box 8, Schenectady, NY 12301
 Conference Position Conference Chairman

CONFERENCE SIGNATURE _____ SOCIETY SIGNATURE _____ Date _____

RETURN TO: IEEE CONFERENCE SERVICES
 445 HOES LANE, P.O. BOX 1331, PISCATAWAY, N.J. 08855-1331, U.S.A.
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IEEE TECHNICAL ACTIVITIES

IEEE CONFERENCE INFORMATION SCHEDULE

See reverse side for instructions on how to complete this form

CONFERENCE

1. Full Title of Conference IEEE FUZZ

2. Dates of Conference June 26, -July 2, 94

3. Location of Conference (full name and address) Walt Disney World Dolphin Hotel, 1500 Epcot Resort Blvd., Lake Buena Vista, Florida 32830

4. Estimated Attendance _____

5. Exhibits Yes No

6. Will there be a Conference Publication? Yes No

If yes, check one: Conference Record Other (explain) CD Rom & Video

7. Identify IEEE entity(s) involved as either Sponsor, Co-Sponsor, Participating or Cooperating and the percentage of involvement. These terms are defined on the reverse side.

| | Type of Involvement | | | | Percentage |
|--------------|--------------------------|--------------------------|--------------------------|--------------------------|------------|
| | S | CS | P | C | |
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | % _____ |
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | % _____ |
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | % _____ |
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | % _____ |

Identify Non-IEEE entity(s) involved and the percentage of involvement:

| | S | CS | P | C | Percentage |
|--------------|--------------------------|--------------------------|--------------------------|--------------------------|------------|
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | % _____ |
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | % _____ |

Has the section within whose geographical boundaries the Conference is being held been notified? Yes No

If yes, who was contacted? _____
Name Section

9. Has an IEEE Conference Insurance Form been submitted? Yes No

ADMINISTRATION

For the following Conference officers, enter first name, middle initial and last name, plus complete address and telephone number.

CONFERENCE CHAIRMAN Dr. Piero P. Bonissone Tel.No. 518-387-5155
 Address GE Corporate Research & Development, Bldg. K-1, Room 5C32A, P.O. Box 8, Schenectady, New York 12301 USA Fax.No. 518-387-6845

INFORMATION CONTACT _____ Tel.No. _____
 Address _____ Fax.No. _____

COMMITTEE MEMBERS

If available, please attach to this form a complete list of Conference Committee members, their titles, addresses, and telephone numbers.

SUBMITTED BY: Dr. Piero P. Bonissone Tel.No. (518) 387-5155
 Address GE CAD, K1-5C32A, P.O. Box 8, SCHENECTADY NY 12301 USA Fax.No. (518) 387-6845

Conference Position Conference Chair

SIGNATURE  Date May 17, 1993

RETURN TO: IEEE CONFERENCE SERVICES
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 FAX: (908) 582-1571
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IEEE TECHNICAL ACTIVITIES
 IEEE CONFERENCE DETAILED FINANCIAL REPORT - PART I: INCOME

This form should be completed only for IEEE sponsored or cosponsored Conferences. The care taken in filling out this report will lead to a more accurate projection of your Conference's net surplus or loss.

NOTE: All income items may be expressed in either U.S. Dollars or in local currency.

Full title of Conference IEEE FUZZ

Dates of Conference June 26th. - July 2, 9

INCOME

REGISTRATION FEES

| | Quantity | Fee | Budget | Interim Report | Final Report |
|----------------------------|------------|--------------|-------------------|----------------|--------------|
| | 75 | X 250 | 18,750 | | |
| In Advance-Members | 125 | X 350 | = \$ 43,750 | \$ | \$ |
| In Advance-Nonmembers | 50 | X 420 | = 21,000 | | |
| In Advance-Reduced Rate | 15 | X 70 | = 1,050 | | |
| At Conference-Members | 180 | X 425 | = 76,500 | | |
| At Conference-Nonmembers | 80 | X 495 | = 39,600 | | |
| At Conference-Reduced Rate | 70 | X 110 | = 7,700 | | |
| Total Registrants | <u>710</u> | Total | \$ 232,500 | \$ | \$ |

CONFERENCE PUBLICATION SALES

| | | | | | |
|---------------------|-----|--------------|------------------|----|----|
| To Members | X | | = \$ 20,500 | \$ | \$ |
| To Nonmembers | X | | = 20,700 | | |
| To IEEE Hq. | 360 | X 40 | = 14,400 | | |
| Total Copies | X | Total | \$ 55,600 | \$ | \$ |

EXHIBITS

| | | | | | |
|--------------|---|--|-----------|-----------|-----------|
| Tables | X | | = \$ | \$ | \$ |
| Booths | X | | = | | |
| Booths | X | | = | | |
| | X | | = | | |
| Total | | | \$ | \$ | \$ |

SOCIAL FUNCTIONS

| | | | | | |
|--|--------------|---------------|----|----|----|
| (Itemize by event on separate sheets.) | Total | \$ 750 | \$ | \$ | \$ |
|--|--------------|---------------|----|----|----|

ALL OTHER (List here or attach details.)

| | | | | | |
|---------------------|--|--|-------------------|----|----|
| Donation | | | \$ 6,000 | \$ | \$ |
| | | | | | |
| | | | | | |
| Total | | | \$ 6,000 | \$ | \$ |
| TOTAL INCOME | | | \$ 294,850 | \$ | \$ |

NOTE: BE SURE TO COMPLETE AND RETURN ALL FINANCIAL FORMS TOGETHER ("SUMMARY REPORT", "PART I: INCOME", "PART II: EXPENSE" AND "SOCIAL FUNCTIONS").

RETURN TO: IEEE CONFERENCE SERVICES
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IEEE TECHNICAL ACTIVITIES
 IEEE CONFERENCE DETAILED FINANCIAL REPORT - PART II: EXPENSE

Form should be completed only for IEEE sponsored or cosponsored Conferences. The care taken in filling out this report will lead to an accurate projection of your Conference's net surplus or loss.

NOTE: All expense items may be expressed in either U.S. Dollars or in local currency.

Full title of Conference IEEE FUZZ

| | Dates of Conference | | |
|--|---------------------|----------------|--------------|
| | Budget | Interim Report | Final Report |
| PROMOTION | | | |
| Printing/Call for Papers | \$ 0 | \$ | \$ |
| Printing/Advance Program | 0 | | |
| Printing/Final Program | 0 | | |
| Mailing Lists/Labels | 0 | | |
| Postage | | | |
| Other <u>Brochures/Posters</u> | 46,522 | | |
| Total | \$ | \$ | \$ |
| CONFERENCE PUBLICATION | | | |
| Conference Record/Digest Printing | \$ 65,600 | \$ | \$ |
| Author Kits Printing | 3,000 | | |
| Shipping to Site and IEEE Hq. | | | |
| Total | \$ 68,600 | \$ | \$ |
| EXHIBITS (Attach detailed statement of all expenses necessary to mount and display exhibits.) | | | |
| Total | \$ 0 | \$ | \$ |
| SOCIAL FUNCTIONS (Itemize event on separate sheets.) | | | |
| Total | \$ 45,055 | \$ | \$ |
| ADMINISTRATION | | | |
| Insurance & Bonding | \$ 400 | \$ | \$ |
| Security & Guard Service | 0 | | |
| Projection Equip. Rent & Operator | 7,800 | | |
| Management, Secretarial Services | 42,901 | | |
| Office Equip. Rental | 4,000 | | |
| Printing forms, Tickets, Stationery, Etc. | 2,700 | | |
| Posters, Signs, Badges, Etc. | | | |
| Telephone | 1,000 | | |
| Transportation | 2,500 | | |
| Gratuities, Etc. (Attach Details) | 1,620 | | |
| Total | \$ 62,921 | \$ | \$ |
| ALL OTHER | | | |
| Committee Expenses | \$ 13,050 | \$ | \$ |
| Other (Attach Details) Scholarship | 8,250 | | |
| Total | \$ 21,300 | \$ | \$ |
| TOTAL EXPENSES | \$ 244,398 | \$ | \$ |

CURRENCY

State here the currency utilized in above computations, e.g., U.S. Dollars, Swiss Francs, etc.

Currency utilized: U.S. Dollars

In the event a currency other than the U.S. Dollar is utilized, it will be necessary to convert to U.S. Dollars - at the current conversion rate - when submitting your final Summary Financial Report to IEEE.

SUBMITTED BY:

Name Dr. Piero P. BONISSONE

Tel. No. (518) 387-5155

Address 6E CRD, KI-5C32A, P.O. Box 8, SCHENECTADY NY 12301

Conference Position CONFERENCE CHAIR

SIGNATURE [Signature]

Date May 17, 1993

NOTE: BE SURE TO COMPLETE AND RETURN ALL FINANCIAL FORMS TOGETHER ("SUMMARY REPORT", "PART I: INCOME", "PART II: EXPENSE" AND "SOCIAL FUNCTIONS").

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SOCIAL FUNCTIONS

(1) Coffee, pastries, etc., between sessions
No. Breaks ___ X No. people ___ X \$/person ___ \$ 12,780 \$ _____

(2) Luncheons
No. Luncheons ___ X No. people ___ X \$/person ___ \$ _____ \$ _____

(3) Receptions
No. Receptions ___ X No. people X \$/person ___ \$ 32,275 \$ _____

(4) Banquets
No. Banquets ___ X No. people X \$/person _____ \$ _____ \$ _____

(5) Speakers Hospitality
No. people X \$/person _____ \$ _____ \$ _____

(6) Transportation (courtesy bus, etc.)..... \$ _____ \$ _____

Companies providing chartered bus services must submit proof of a current and valid certificate of insurance during the dates of the event with coverage of at least 1 million dollars. A copy of this certificate should be submitted with the IEEE Conference Insurance form. IEEE Insurance coverage does not cover boat or air transportation.

(7) Other social functions expenses (specific)..... \$ _____ \$ _____

TOTAL SOCIAL FUNCTION EXPENSES \$ 45,055 \$ _____

SOCIAL COST PER ATTENDEE \$ _____ \$ _____

NOTE: BE SURE TO COMPLETE AND RETURN ALL FINANCIAL FORMS TOGETHER ("PART I: INCOME", "PART II: EXPENSE", "SOCIAL FUNCTIONS" AND "SUMMARY REPORT").

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UNC CHARLOTTE
The University of North Carolina at Charlotte
Charlotte, N.C. 28223

FAX TRANSMITTAL COVER SHEET

DATE: 12 August

TO: DR. Swamy Laxminarayan

COMPANY: UMD, New Jersey

FAX NO: (201) 982 7668

FROM: Z. MICHALEWICZ

FAX NO: 704/547-~~8516~~ 3516

PHONE NO: (704) 547 4873

NO. PAGES SUBMITTED, INCLUDING THIS COVER SHEET: 9

MESSAGE (IF ANY): Dear Swamy,

Please find enclosed

the requested document.

Thank you for your assistance

Mike



IEEE TECHNICAL ACTIVITIES

SUMMARY FINANCIAL REPORT FOR IEEE SPONSORED OR COSPONSORED CONFERENCES

See reverse side for instructions on how to complete this form

CONFERENCE

1. Full title of Conference Evolutionary Computation Conference
2. Dates of Conference June 26th. - July 2,
3. Location of Conference (full name and address) Walt Disney World Dolphin Hotel, 1500 Epcot Resort Blvd. Lake Buena Vista, Florida 32830

TYPE OF REPORT / CURRENCY USED

4. Indicate type of report by checking one box:
 Budget Interim Report Final Report
5. All income and expense figures below must in U.S. Dollars. For Conferences held outside the U.S.A., indicate here the local currency (e.g., Swiss Francs) and the conversion rate used (local currency units per 1 U.S. Dollar) and date.
Local currency: U.S. Dollars Conversion rate: _____ Date of Conversion rate: _____

INCOME

| | Budget | Interim Report | Final Report |
|-----------------------------------|------------|----------------|--------------|
| 6. Registration Fees | \$ 119,800 | \$ _____ | \$ _____ |
| 7. Conference Publication Sales | 28,500 | _____ | _____ |
| 8. Exhibits | _____ | _____ | _____ |
| 9. Social Functions | 750 | _____ | _____ |
| 10. All Other Conference Receipts | 4,500 | _____ | _____ |
| 11. Total Conference Income | 153,550 | _____ | _____ |
| 12. Conference Loans | _____ | _____ | _____ |
| 13. Total Receipts | \$ 153,550 | \$ _____ | \$ _____ |

EXPENSE

| | Budget | Interim Report | Final Report |
|-----------------------------------|------------|----------------|--------------|
| 14. Promotion | \$ 29,207 | \$ _____ | \$ _____ |
| 15. Conference Publications | 33,240 | _____ | _____ |
| 16. Exhibits | _____ | _____ | _____ |
| 17. Social Functions | 24,130 | _____ | _____ |
| 18. Administration | 38,629 | _____ | _____ |
| 19. All Other Conference Expenses | 10,750 | _____ | _____ |
| 20. Total Conference Expense | 135,956 | _____ | _____ |
| 21. Loan Repayments | _____ | _____ | _____ |
| 22. Total Outlays | \$ 135,956 | \$ _____ | \$ _____ |

SURPLUS / (LOSS)

23. Total Receipts (13) \$ 153,550 24. Total Outlays (22) \$ 135,956
25. Surplus (Loss)-(Item 23 less Item 24) \$ 17,594

POST CONFERENCE DISTRIBUTION

| Cosponsor Entity | % Share | \$ Distributed |
|--------------------------------|------------|----------------|
| a. <u>Neural Net</u> | <u>95%</u> | _____ |
| b. <u>IEEE Orlando Section</u> | <u>5%</u> | _____ |
| c. _____ | _____ | _____ |
| d. _____ | _____ | _____ |
| Surplus (Loss) | | \$ _____ |

CONFERENCE FINANCIAL INSTITUTION

Name of Bank Wachovia Bank of North Carolina, N.A.
Address Charlotte, NC 28231-1608
Conference Account Title IEEE-ISEC'94 Account No. 1862 067056
Have you requested IEEE Conference Insurance? Yes No

SUBMITTED BY:

Name Zbigniew Michalewicz Tel.No.() 704 547-4873
Address Department of Computer Science, University of North Carolina, Charlotte, NC 28223
Conference Position General Chair

CONFERENCE SIGNATURE _____ SOCIETY SIGNATURE _____ Date 5/19/1993

RETURN TO: IEEE CONFERENCE SERVICES
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IEEE TECHNICAL ACTIVITIES

IEEE CONFERENCE INFORMATION SCHEDULE

See reverse side for instructions on how to complete this form

CONFERENCE

1. Full Title of Conference Evolutionary Computation Conference
2. Dates of Conference June 26th. - July 2, 93
3. Location of Conference (full name and address) Walt Disney World Dolphin Hotel, 1500 Epcot Resort Blvd., Lake Buena Vista, Florida 32830
4. Estimated Attendance _____ 5. Exhibits Yes No
6. Will there be a Conference Publication? Yes No
If yes, check one: Conference Record Other (explain) CD Rom & Video

7. Identify IEEE entity(s) involved as either Sponsor, Co-Sponsor, Participating or Cooperating and the percentage of involvement. These terms are defined on the reverse side.

| Entity | Type of Involvement | | | | % |
|--------------|--------------------------|--------------------------|--------------------------|--------------------------|---------|
| | S | CS | P | C | |
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | % _____ |
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | % _____ |
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | % _____ |
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | % _____ |

Identify Non-IEEE entity(s) involved and the percentage of involvement:

| | | | | | |
|--------------|--------------------------|--------------------------|--------------------------|--------------------------|---------|
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | % _____ |
| Entity _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | % _____ |

8. Has the section within whose geographical boundaries the Conference is being held been notified? Yes No

If yes, who was contacted? _____
Name Section

9. Has an IEEE Conference Insurance Form been submitted? Yes No

ADMINISTRATION

For the following Conference officers, enter first name, middle initial and last name, plus complete address and telephone number.

CONFERENCE CHAIRMAN Dr. Zbigniew Michalewicz Tel.No. 704-547-4873
 Address Dept. of Computer Science, The University of North Carolina at Charlotte
Charlotte, North Carolina 28223 USA Fax.No. 704-547-2352

INFORMATION CONTACT _____ Tel.No. _____
 Address _____ Fax.No. _____

COMMITTEE MEMBERS

If available, please attach to this form a complete list of Conference Committee members, their titles, addresses, and telephone numbers. - attached!

SUBMITTED BY: Zbigniew Michalewicz Tel.No. (704)547-4873
 Address Department of Computer Science, UNiv. of North Carolina, Charlotte, NC 28223
 Fax.No. (704)5472352

Conference Position General Chair

SIGNATURE _____ Date 5/19/1993

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 FAX: (908) 562-1571
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Evolutionary Computation Conference
World Congress on Computational Intelligence

General Chair:

Zbigniew Michalewicz
Department of Computer Science
University of North Carolina
Charlotte, NC 28223
E-mail: zbyczek@mosaic.uncc.edu
Phone: (704) 547-4873
Fax: (704) 547-2352

Program Chairs:

David Schaffer
Philips Laboratory
345 Scarborough Road
Briarcliff Manor, NY 10510
E-mail: dsl@philabs.philips.com
Phone: (914) 945-6168
Fax: (914) 945-6552

Hans-Paul Schwefel
Dept. of Computer Science
University of Dortmund
P.O. Box 50 05 00
D-4600 Dortmund 50
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E-mail: schwefel@LS11.informatik.uni-dortmund.de
Phone: +49-231-755-4590
Fax: +49-231-755-2450

Hiroaki Kitano
Software Engineering Laboratory
NEC Corporation
2-11-5 Shibaura
Minato, Tokyo 108
Japan
E-mail: kitano@spls26.ccs.mt.nec.co.jp
Phone: (+81) 3-5476-1089
Fax: (+81) 3-5476-1083

Finance Chair:

Richard Lejk
Department of Computer Science
University of North Carolina
Charlotte, NC 28223
E-mail: lejk@mosaic.uncc.edu
Phone: (704) 547-4554
Fax: (704) 547-2352

Proceedings Chair:

David Fogel
ORINCON Corporation
9363 Towne Centre Dr.
San Diego, CA 92121
E-mail: fogel@ece.ucsd.edu
Phone: (619) 455-5530 x424
Fax: (619) 453-9274

Publicity Chair:

Patrick Simpson
ORINCON Corporation
9363 Towne Centre Dr.
San Diego, CA 92121
E-mail: xm8@sdcc12.ucsd.edu
Phone: (619) 455-5530 x267
Fax: (619) 453-9274



IEEE TECHNICAL ACTIVITIES
IEEE CONFERENCE DETAILED FINANCIAL REPORT - PART I: INCOME

This form should be completed only for IEEE sponsored or cosponsored Conferences. The care taken in filling out will lead to a more accurate projection of your Conference's net surplus or loss.

NOTE: All income items may be expressed in either U.S. Dollars or in local currency.

Full title of Conference Evolutionary Computation Conference

Dates of Conference June 26-July 2,

INCOME

REGISTRATION FEES

| | Quantity | Fee | Budget | Interim Report | Final |
|----------------------------|----------|--------------|-------------------|----------------|-----------|
| | 50 | X 250 | 12,500 | | |
| In Advance-Members | 50 | x 350 | = \$ 17,500 | \$ | \$ |
| In Advance-Nonmembers | 50 | x 70 | = 3,500 | | |
| In Advance-Reduced Rate | 10 | x 70 | = 700 | | |
| At Conference-Members | 50 | x 90 | = 4,500 | | |
| At Conference-Nonmembers | 50 | x 495 | = 24,750 | | |
| At Conference-Reduced Rate | 40 | x 110 | = 4,400 | | |
| Total Registrants | | Total | \$ 119,800 | \$ | \$ |

CONFERENCE PUBLICATION SALES

| | | | | | |
|---------------------|-----|--------------|------------------|-----------|-----------|
| To Members | x | | = \$ 14,150 | \$ | \$ |
| To Nonmembers | x | | = 14,350 | | |
| To IEEE Hq. | 100 | x 30 | = 3,000 | | |
| Total Copies | | Total | \$ 28,000 | \$ | \$ |

EXHIBITS

| | | | | | |
|--------------|---|--|-----------|-----------|-----------|
| Tables | x | | = \$ | \$ | \$ |
| Booths | x | | = | | |
| Booths | x | | = | | |
| | x | | = | | |
| Total | | | \$ | \$ | \$ |

SOCIAL FUNCTIONS

| | | | | |
|--|--------------|---------------|-----------|-----------|
| (Itemize by event on separate sheets.) | Total | \$ 750 | \$ | \$ |
|--|--------------|---------------|-----------|-----------|

ALL OTHER (List here or attach details.)

| | | | | |
|---------------------|--|-------------------|-----------|-----------|
| Donations/Grants | | \$ 4,500 | \$ | \$ |
| | | | | |
| Total | | \$ 4,500 | \$ | \$ |
| TOTAL INCOME | | \$ 153,550 | \$ | \$ |

NOTE: BE SURE TO COMPLETE AND RETURN ALL FINANCIAL FORMS TOGETHER ("SUMMARY REPORT", "PART I: INCOME", "PART II: EXPENSE" AND "SOCIAL FUNCTIONS").

RETURN TO: IEEE CONFERENCE SERVICES
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IEEE TECHNICAL ACTIVITIES
IEEE CONFERENCE DETAILED FINANCIAL REPORT - PART II: EXPENSE

This form should be completed only for IEEE sponsored or cosponsored Conferences. The care taken in filling out this report will lead a more accurate projection of your Conference's net surplus or loss.

NOTE: All expense items may be expressed in either U.S. Dollars or in local currency.

Full title of Conference Evolutionary Computation Conference

Dates of Conference _____

| PROMOTION | Dates of Conference | | |
|--|-------------------------------|----------------|--------------|
| | Budget | Interim Report | Final Report |
| Printing/Call for Papers | \$ _____ | \$ _____ | \$ _____ |
| Printing/Advance Program | _____ | _____ | _____ |
| Printing/Final Program | _____ | _____ | _____ |
| Mailing Lists/Labels | _____ | _____ | _____ |
| Postage | _____ | _____ | _____ |
| Other <u>Publicity</u> | _____ | _____ | _____ |
| Total | \$ <u>29,207</u> | \$ _____ | \$ _____ |
| CONFERENCE PUBLICATION | | | |
| Conference Record/Digest Printing | \$ 31,840 | \$ _____ | \$ _____ |
| Author Kits Printing | _____ | _____ | _____ |
| Shipping to Site and IEEE Hq. | 1,400 | _____ | _____ |
| Total | \$ <u>33,240</u> | \$ _____ | \$ _____ |
| EXHIBITS (Attach detailed statement of all expenses necessary to mount and display exhibits.) | Total \$ _____ | \$ _____ | \$ _____ |
| SOCIAL FUNCTIONS (Itemize event on separate sheets.) | Total \$ <u>24,130</u> | \$ _____ | \$ _____ |
| ADMINISTRATION | | | |
| Insurance & Bonding | \$ 400 | \$ _____ | \$ _____ |
| Security & Guard Service | _____ | _____ | _____ |
| Projection Equip. Rent & Operator | 5,000 | _____ | _____ |
| Management, Secretarial Services | 23,419 | _____ | _____ |
| Office Equip. Rental | 3,000 | _____ | _____ |
| Printing forms, Tickets, Stationery, Etc. | 2,100 | _____ | _____ |
| Posters, Signs, Badges, Etc. | _____ | _____ | _____ |
| Telephone | 800 | _____ | _____ |
| Transportation | 2,500 | _____ | _____ |
| Gratuities, Etc. (Attach Details) | 1,410 | _____ | _____ |
| Total | \$ <u>38,629</u> | \$ _____ | \$ _____ |
| ALL OTHER | | | |
| Committee Expenses | \$ 7,000 | \$ _____ | \$ _____ |
| Other (Attach Details) | 3,750 | _____ | _____ |
| Total | \$ <u>10,750</u> | \$ _____ | \$ _____ |
| TOTAL EXPENSES | \$ <u>135,956</u> | \$ _____ | \$ _____ |

CURRENCY

State here the currency utilized in above computations, e.g., U.S. Dollars, Swiss Francs, etc.

Currency utilized: U.S. Dollars

In the event a currency other than the U.S. Dollar is utilized, it will be necessary to convert to U.S. Dollars - at the current conversion rate when submitting your final Summary Financial Report to IEEE.

SUBMITTED BY:

Name Zbigniew Michalewicz Tel. No. (704) 547-4873
 Address Department of Computer Science, University of North Carolina, Charlotte, NC 28223
 Conference Position General Chair

SIGNATURE _____ Date 5/19/1993

NOTE: BE SURE TO COMPLETE AND RETURN ALL FINANCIAL FORMS TOGETHER ("SUMMARY REPORT", "PART I: INCOME", "PART II: EXPENSE" AND "SOCIAL FUNCTIONS").

1993 IEEE Neural Networks Council Document
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| | ICNN | | FUZZ | | EvComp | | Congress | | TOTAL | | Notes |
|---|-------|-------|-----------|-------|-----------|-------|-----------|-------|----------|-------|-----------|
| | Fee | Count | Amount | Count | Amount | Count | Amount | Count | Amount | Count | |
| INCOME REGISTRATION FEE (Discounting Factor) | | 0.75 | | 1.00 | | 1.00 | | 1.00 | | | |
| Members | | | | | | | | | | | |
| Before 12/93 | \$250 | 75 | \$18,750 | 75 | \$18,750 | 50 | \$12,500 | | \$0 | 200 | \$50,000 |
| Before 3/15 | \$350 | 150 | \$52,500 | 125 | \$43,750 | 50 | \$17,500 | | \$0 | 325 | \$113,750 |
| After 3/15 | \$425 | 300 | \$127,500 | 180 | \$76,500 | 50 | \$21,250 | | \$0 | 530 | \$225,250 |
| | | 525 | \$198,750 | 380 | \$139,000 | 150 | \$51,250 | 0 | \$0 | 1055 | \$389,000 |
| Non-Members | | | | | | | | | | | |
| Before 12/93 | \$300 | 75 | \$22,500 | 50 | \$15,000 | 50 | \$15,000 | | \$0 | 175 | \$52,500 |
| Before 3/15 | \$420 | 150 | \$63,000 | 60 | \$25,200 | 50 | \$21,000 | | \$0 | 260 | \$109,200 |
| After 3/15 | \$495 | 150 | \$74,250 | 80 | \$39,600 | 50 | \$24,750 | | \$0 | 280 | \$138,600 |
| | | 375 | \$159,750 | 190 | \$79,800 | 150 | \$60,750 | 0 | \$0 | 715 | \$300,300 |
| Students | | | | | | | | | | | |
| Before 12/93 | \$70 | 25 | \$1,750 | 15 | \$1,050 | 10 | \$700 | | \$0 | 50 | \$3,500 |
| Before 3/15 | \$90 | 75 | \$6,750 | 55 | \$4,950 | 30 | \$2,700 | | \$0 | 160 | \$14,400 |
| After 3/15 | \$110 | 100 | \$11,000 | 70 | \$7,700 | 40 | \$4,400 | | \$0 | 210 | \$23,100 |
| | | 200 | \$19,500 | 140 | \$13,700 | 80 | \$7,800 | 0 | \$0 | 420 | \$41,000 |
| One-Day | \$150 | | | | | | | 100 | \$15,000 | 100 | \$15,000 |
| REGISTRATION TOTAL | | 1100 | \$378,000 | 710 | \$232,500 | 380 | \$119,800 | 100 | \$15,000 | 2290 | \$745,300 |

* ICNN registrants decreased to a total of 1100 (discounting factor of 0.75 applied only to IEEE and non-students)

CONSOLIDATED BUDGETS FOR THE 1994 WORLD CONGRESS ON COMPUTATIONAL INTELLIGENCE INTERNATIONAL CONFERENCE ON NEURAL NETWORKS EVOLUTIONARY COMPUTATION CONFERENCE FUZZ-IEEE

SWAMY LAXMINARAYAN, FINANCE DIRECTOR, WCCI
CHARLES J. ROBINSON, DIRECTOR GENERAL, WCCI

includes ADCOM Amendments

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| | Fee | ICNN | | FUZZ | | EvComp | | Congress | | TOTAL | | Notes |
|------------------------------|-----|-------|----------|-------|----------|--------|----------|----------|----------|-------|-----------|-------|
| | | Count | Amount | Count | Amount | Count | Amount | Count | Amount | Count | Amount | |
| PROCEEDINGS | | | | | | | | | | | | |
| Each issue (pgs) | | 3000 | | 2000 | | 1200 | | 240 | | 6440 | | Notes |
| Selling Prices | | | | | | | | | | | | |
| PAPER | | | | | | | | | | | | |
| Book Brooker | | | \$60 | | \$40 | | \$30 | | \$30 | | | |
| CONGRESS PROC. PACKAGE | | | | | | | | | | | | |
| Member on-site | | | \$105 | | \$105 | | \$105 | | \$30 | | | |
| Non-Memb on-site | | | \$105 | | \$105 | | \$105 | | \$30 | | | |
| Student | | | | | | | | | | | | |
| CD ROM | | | | | | | | | | | | |
| Book Brooker (CD ROM) | | | \$20 | | \$20 | | \$20 | | \$20 | | | |
| 2nd Medium (CD or Paper) | | | | | | | | | | | | |
| Member on-site | | | \$20 | | \$20 | | \$20 | | \$20 | | | |
| Non-Memb on-site | | | \$20 | | \$20 | | \$20 | | \$20 | | | |
| VIDEO | | | | | | | | | | | | |
| Member on-site - first 100 | | | \$33 | | \$33 | | \$33 | | \$33 | | | |
| Non-Memb on-site -first 100 | | | \$33 | | \$33 | | \$33 | | \$33 | | | |
| Member on-site - after 100 | | | \$22 | | \$22 | | \$22 | | \$22 | | | |
| Non-Memb on-site - after 100 | | | \$22 | | \$22 | | \$22 | | \$22 | | | |
| Additional Sales | | | | | | | | | | | | |
| PAPER | | | | | | | | | | | | |
| Book Brooker | | 400 | \$24,000 | 360 | \$14,400 | 100 | \$3,000 | 300 | \$9,000 | 1160 | \$50,400 | |
| CONGRESS PROC. PACKAGE | | | | | | | | | | | | |
| Member on-site | | 150 | \$15,750 | 150 | \$15,750 | 100 | \$10,500 | 50 | \$1,500 | 450 | \$43,500 | |
| Non-Memb on-site | | 150 | \$15,750 | 150 | \$15,750 | 100 | \$10,500 | 50 | \$1,500 | 450 | \$43,500 | |
| | | 700 | \$55,500 | 660 | \$45,900 | 300 | \$24,000 | 400 | \$12,000 | 2060 | \$137,400 | |
| CD ROM | | | | | | | | | | | | |
| Book Brooker | | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 | |
| 2nd Medium (CD or Paper) | | | | | | | | | | | | |
| Member on-site | | 100 | \$2,000 | 100 | \$2,000 | 100 | \$2,000 | 0 | \$0 | 300 | \$6,000 | |
| Non Memb on-site | | 100 | \$2,200 | 100 | \$2,200 | 100 | \$2,200 | 0 | \$0 | 300 | \$6,600 | |
| NNC for later use | | | | | | | | | | | | |
| | | 200 | \$4,200 | 200 | \$4,200 | 200 | \$4,200 | 0 | \$0 | 600 | \$12,600 | |
| VIDEO | | | | | | | | | | | | |
| Member on-site - first 100 | | 50 | \$1,650 | 50 | \$1,650 | 50 | \$1,650 | | | | \$4,950 | |
| Non-Memb on-site -first 100 | | 50 | \$1,650 | 50 | \$1,650 | 50 | \$1,650 | | | | \$4,950 | |
| Member on-site | | 50 | \$1,100 | 50 | \$1,100 | 0 | \$0 | 0 | \$0 | | \$2,200 | |
| Non Memb on-site | | 50 | \$1,100 | 50 | \$1,100 | 0 | \$0 | 0 | \$0 | | \$2,200 | |
| | | | \$5,500 | | \$5,500 | | \$3,300 | | \$0 | | \$14,300 | |
| TOTAL ADD SALES | | | \$59,700 | | \$50,100 | | \$28,200 | | \$12,000 | | \$150,000 | |

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| | ICNN | | FUZZ | | EvComp | | Congress | | TOTAL | | Notes |
|-------------------------|---------|-------|------------------|-------|------------------|-------|------------------|-------|------------------|-------|--------------------|
| | Fee | Count | Amount | Count | Amount | Count | Amount | Count | Amount | Count | |
| SOCIAL FUNCTIONS | | | | | | | | | | | |
| Extra Ticket Fee | | | \$15 | | \$15 | | \$15 | | \$30 | | |
| Extra Ticket sales | | 50 | \$750 | 50 | \$750 | 50 | \$750 | 100 | \$3,000 | | \$5,250 |
| TUTORIALS | | | | | | | | | | | |
| Number and avg cost | | | | | | | | 18 | \$300 | | |
| Extra tutorial cost | | | | | | | | | \$100 | | |
| Attend and total sales | | | | | | | | | \$0 | | \$0 |
| Attend another | | | | | | | | 0 | \$0 | | \$0 |
| Total | | | \$37,000 | | \$74,000 | | \$54,000 | | \$0 | | \$165,000 |
| Transfer % | | 0 | | 0 | | 0 | | 100 | | | |
| Transfer amount | | | \$0 | | \$0 | | \$0 | | \$0 | | |
| Tutorial TOTAL | | | \$0 | | \$0 | | \$0 | | \$165,000 | | \$165,000 |
| EXHIBITS | | | | | | | | | | | |
| Number and cost-educ | \$200 | | | | | | | 20 | \$4,000 | | \$4,000 |
| Number and cost-pubs | \$500 | | | | | | | 10 | \$5,000 | | \$5,000 |
| Number and cost-inds | \$1,000 | | | | | | | 45 | \$45,000 | | \$45,000 |
| | | | | | | | | 65 | \$54,000 | | \$54,000 |
| Transfer % | | 0 | | 0 | | 0 | | 100 | | | |
| Transfer amount | | | \$0 | | \$0 | | \$0 | | \$0 | | |
| EXHIBIT TOTAL | | | \$0 | | \$0 | | \$0 | | \$54,000 | | \$54,000 |
| (Discounting factor) | | | 0.50 | | 0.50 | | 0.50 | | 0.50 | | |
| DONATIONS | | | | | | | | | | | |
| Targeted | | | \$2,500 | | \$2,000 | | \$1,500 | | \$5,000 | | \$11,000 |
| Grants | | | \$5,000 | | \$4,000 | | \$3,000 | | \$10,000 | | \$22,000 |
| | | | \$7,500 | | \$6,000 | | \$4,500 | | \$15,000 | | \$33,000 |
| SEED MONEY | | | | | | | | | | | |
| TOTAL INCOME | | | <u>\$445,950</u> | | <u>\$289,350</u> | | <u>\$153,250</u> | | <u>\$264,000</u> | | <u>\$1,152,550</u> |

* Donations reduced by 50%

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| EXPENSES | ICNN | | FUZZ | | EvComp | | Congress | | TOTAL | | Notes | |
|----------------------------|----------------|-------|----------|-------|----------|-------|----------|-------|------------|-------|--------------------------------|---|
| | Fee | Count | Amount | Count | Amount | Count | Amount | Count | Amount | Count | | Amount |
| GENERAL | | | | | | | | | | | | |
| Conference Managemnt | | | | | | | | | | | | |
| Transfer | Base \$20K | 1100 | | 710 | | 380 | | 100 | \$20,000 | 2290 | | |
| | | 48% | \$9,607 | 31% | \$6,201 | 17% | \$3,319 | 4% | (\$19,127) | | CJR CHANGE | |
| | | | \$9,607 | | \$6,201 | | \$3,319 | | \$873 | | Mgmt Fee Reduced from 23 to 20 | |
| Registration Services | Base \$20K | | | | | | | 1200 | \$20,000 | | | |
| Transfer | Over 1200 \$20 | | | | | | | 1090 | \$21,800 | | CJR CHANGE | |
| Transfer number & % | | | 48% | | 31% | | 17% | | 4% | | Fee Reduced from 24 to 20 | |
| Transfer amount | \$20 | | \$22,000 | | \$14,200 | | \$7,600 | | (\$43,800) | | | |
| | | | \$22,000 | | \$14,200 | | \$7,600 | | (\$2,000) | | \$41,800 | |
| Discretionary Funds | | | \$8,000 | | \$8,000 | | \$3,000 | | \$10,000 | | \$29,000 | • PPB CHANGE: Increased discretionary funding for ICNN & FUZZY (from 5K to 8k |
| Administrative Costs | | | | | | | | | \$5,000 | | | |
| On Site Equip rent | | | | | | | | | \$3,000 | | | |
| Xerox | | | \$2,500 | | \$2,000 | | \$1,000 | | \$5,000 | | | |
| Secr support | | | \$3,000 | | \$2,500 | | \$1,500 | | \$5,000 | | | • PPB CHANGE: |
| non-pubclty postage | | | \$1,800 | | \$1,500 | | \$1,200 | | \$2,000 | | | • Increased non-publ mailing 50% |
| phone, fax | | | \$1,200 | | \$1,000 | | \$800 | | \$1,000 | | | • : doubled phone cost for 3 conf |
| travel (not pgm committee) | | | \$2,500 | | \$2,500 | | \$2,500 | | \$10,000 | | | |
| auditing | | | \$4,000 | | \$3,000 | | \$2,000 | | \$5,000 | | | |
| security | | | | | | | | | \$4,000 | | | |
| insurance | | | \$400 | | \$400 | | \$400 | | \$400 | | | |
| Stationary | | | \$1,500 | | \$1,200 | | \$900 | | \$4,000 | | | |
| Signs and badges | | | | | | | | | \$7,500 | | | • PPB CHANGE: |
| misc supplies | | | \$2,000 | | \$2,000 | | \$2,000 | | \$2,000 | | | • doubled misc supplies |
| | | | \$18,900 | | \$16,100 | | \$12,300 | | \$48,900 | | | \$96,200 |
| GENERAL TOTAL | | | \$58,507 | | \$44,501 | | \$26,219 | | \$57,773 | | | \$187,000 |

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| | Fee | ICNN | | FUZZ | | EvComp | | Congress | | TOTAL | | Notes |
|--|---------|-------|----------|-------|----------|--------|----------|-----------|------------|-------|-----------|--|
| | | Count | Amount | Count | Amount | Count | Amount | Count | Amount | Count | Amount | |
| TECHNICAL | | | | | | | | | | | | |
| Paper Statistics | | | | | | | | | | | | |
| Accepted (# and Avg length) | | 500 | 5 | 300 | 6 | 200 | 6 | 43 | 6 | | | |
| Rejected (#) | | 250 | | 150 | | 100 | | 0 | | | | |
| # Manuscripts & Pages | | 750 | 2,500 | 450 | 1,800 | 300 | 1,200 | 43 | 258 | 1,543 | | |
| Manuscript Handling | | | | | | | | | | | | |
| Base \$20K | | | | | | | | 1200 | \$20,000 | | | |
| Over 1200 | \$20 | | | | | | | 343 | \$6,860 | | | CJR CHANGE |
| Transfer number & % | | 750 | 49% | 450 | 29% | 300 | 19% | 43 | 3% | | | Fee Reduced from 24 to 20 |
| Transfer amount | \$20 | | \$15,000 | | \$9,000 | | \$6,000 | | (\$30,000) | | | |
| | | | \$15,000 | | \$9,000 | | \$6,000 | | (\$3,140) | | \$26,860 | |
| AV Rental | | | | | | | | | | | | |
| # Platform & #Posters | | 350 | 150 | 200 | 100 | 100 | 100 | 43 | 0 | | | |
| Platform | | | | | | | | 693 | \$20,000 | | | |
| Poster boards | | | | | | | | 350 | \$8,000 | | | |
| Platform transfer | \$28 | | \$9,800 | | \$5,600 | | \$2,800 | | (\$18,200) | | | |
| Poster Transfer | \$22 | | \$3,300 | | \$2,200 | | \$2,200 | | (\$7,700) | | | |
| | | | \$13,100 | | \$7,800 | | \$5,000 | | \$2,100 | | \$28,000 | AMENDMENT: AV expense dou from \$14,000 to \$28000 |
| Program Committee | | | | | | | | | | | | |
| Mailing exp | | | \$1,000 | | \$800 | | \$500 | | \$500 | | | |
| Secr Expenses | \$5 | | \$3,750 | | \$2,250 | | \$1,500 | | \$215 | | | |
| Travel + Lodging | | | \$12,000 | | \$10,000 | | \$5,000 | | \$5,000 | | | |
| | | | \$16,750 | | \$13,050 | | \$7,000 | | \$5,715 | | \$42,515 | Increased T+L for FUZZ from \$8000 to \$10000 |
| Scholarship(non Tutorial/ non Symposium/non student) | | | | | | | | | | | | |
| Registration | \$250 | 11 | \$2,750 | 7 | \$1,750 | 3 | \$750 | | | | | |
| Travel | \$500 | 7 | \$3,500 | 5 | \$2,500 | 2 | \$1,000 | | | | | |
| Travel | \$1,000 | 7 | \$7,000 | 4 | \$4,000 | 2 | \$2,000 | | | | | |
| | | | \$13,250 | | \$8,250 | | \$3,750 | | | | \$25,250 | PPB CHANGE: added two travels to FUZZ changed travel unit cost to \$500-\$ (to be consistent with Congress pr |
| Symposium | | | | | | | | | | | | |
| Registration | \$250 | | | | | | | 43 | \$10,750 | | | |
| AV Rental | | | | | | | | See Above | \$1,500 | | | |
| Administr Expense | | | | | | | | See below | | | | |
| Special Brochure | | | | | | | | See Above | | | | |
| Manuscript Handling | | | | | | | | | | | | |
| Travel | \$500 | | | | | | | 20 | \$10,000 | | | |
| Travel | \$1,000 | | | | | | | 23 | \$23,000 | | | |
| | | | | | | | | | \$45,250 | | \$45,250 | |
| Tutorials | | | | | | | | | | | | |
| Registration waiver | \$250 | | | | | | | 18 | \$4,500 | | | |
| Travel | \$700 | | | | | | | 18 | \$12,600 | | | |
| Handouts | \$400 | | | | | | | 18 | \$7,200 | | | |
| Admin costs | | | | | | | | | \$2,000 | | | |
| AV Rental+ signs | | | | | | | | | \$1,000 | | | |
| | | | | | | | | | \$27,300 | | \$27,300 | |
| Transfer % | | 0 | | 0 | | 0 | | 100 | | | | |
| Transfer amount | | | \$0 | | \$0 | | \$0 | | \$0 | | | |
| Tutorial TOTAL | | | \$0 | | \$0 | | \$0 | | \$27,300 | | \$27,300 | |
| TOTAL TECHNICAL | | | \$58,100 | | \$38,100 | | \$21,750 | | \$77,225 | | \$195,175 | |

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| | ICNN | | FUZZ | | EvComp | | Congress | | TOTAL | | Notes |
|-----------------------|-------|-------|----------|-------|----------|-------|----------|-------|----------|-------|-----------|
| | Fee | Count | Amount | Count | Amount | Count | Amount | Count | Amount | Count | |
| OPERATIONS | | | | | | | | | | | |
| Social | | | | | | | | | | | |
| Coffee | \$24 | 825 | \$19,800 | 532.5 | \$12,780 | 285 | \$6,840 | 5 | \$120 | | |
| Main Reption | \$50 | 825 | \$41,250 | 532.5 | \$26,625 | 285 | \$14,250 | 100 | \$5,000 | | |
| Topic Reception | \$10 | 550 | \$5,500 | 355 | \$3,550 | 190 | \$1,900 | 100 | \$1,000 | | |
| Track Chair reception | \$60 | 55 | \$3,300 | 35 | \$2,100 | 19 | \$1,140 | 100 | \$6,000 | | |
| | | | \$50,050 | | \$32,275 | | \$17,290 | | \$12,000 | | \$111,615 |
| Volunteer | | | | | | | | | | | |
| Student Vol Registr | \$70 | 8 | \$560 | 6 | \$420 | 3 | \$210 | 1 | \$70 | | |
| Student Vol Travel | \$400 | 5 | \$2,000 | 3 | \$1,200 | 3 | \$1,200 | 4 | \$1,600 | | |
| Section Registration | \$250 | | | | | | | 5 | \$1,250 | | |
| | | | \$2,560 | | \$1,620 | | \$1,410 | | \$2,920 | | \$8,510 |
| Tours | | | | | | | | | | | |
| Tour Busses | \$300 | | | | | | | 5 | \$1,500 | | |
| | | | | | | | | | \$1,500 | | \$1,500 |
| OPERATIONS TOTAL | | | \$52,610 | | \$33,895 | | \$18,700 | | \$16,420 | | \$121,625 |

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| | Fee | ICNN | | FUZZ | | EvComp | | Congress | | TOTAL | | Notes |
|-----------------------------------|--------|-------|----------|-------|----------|--------|----------|----------|-----------|----------|--------|-----------|
| | | Count | Amount | Count | Amount | Count | Amount | Count | Amount | Count | Amount | |
| COMMUNICATIONS (PUBLICITY) | | | | | | | | | | | | |
| General Brochure | | | | | | | | | | | | |
| Layout and pre-press | \$60 | | | | | | | | | | | |
| Printing | \$0.50 | | | | | | | 50 | \$3,000 | | | |
| Mailing Lists/Labels | \$0.05 | | | | | | | 30000 | \$15,000 | | | |
| Postage | \$1.00 | | | | | | | 30000 | \$1,500 | | | |
| Mailing House | \$0.05 | | | | | | | 30000 | \$30,000 | | | |
| | | | | | | | | | \$1,500 | | | |
| | | | | | | | | | | \$51,000 | | \$51,000 |
| Special Brochure | | | | | | | | | | | | |
| Layout | \$60 | 50 | \$3,000 | 50 | \$3,000 | 50 | \$3,000 | 50 | \$3,000 | | 200 | |
| Printing | \$0.50 | 10000 | \$5,000 | 10000 | \$5,000 | 4000 | \$2,000 | 10000 | \$5,000 | | 34000 | |
| Mailing Lists/Labels | \$0.05 | 10000 | \$500 | 10000 | \$500 | 4000 | \$200 | 10000 | \$500 | | 11000 | |
| Postage | \$1.00 | 10000 | \$10,000 | 10000 | \$10,000 | 4000 | \$4,000 | 10000 | \$10,000 | | 11000 | |
| Mailing House | \$0.05 | 10000 | \$500 | 10000 | \$500 | 4000 | \$200 | 10000 | \$500 | | 11000 | |
| | | | \$19,000 | | \$19,000 | | \$9,400 | | \$19,000 | | | \$66,400 |
| General Poster | | | | | | | | | | | | |
| Layout | \$50 | | | | | | | 30 | \$1,500 | | 30 | |
| Printing | \$4.00 | | | | | | | 2000 | \$8,000 | | 2000 | |
| Mailing Lists/Labels | \$0.05 | | | | | | | 500 | \$25 | | 500 | |
| Postage | \$1.00 | | | | | | | 500 | \$500 | | 500 | |
| Mailing House | \$0.05 | | | | | | | 500 | \$25 | | 500 | |
| | | | | | | | | | \$10,050 | | | \$10,050 |
| Special Poster | | | | | | | | | | | | |
| Layout | \$50 | 20 | \$1,000 | 20 | \$1,000 | 20 | \$1,000 | | | | 60 | |
| Printing | \$4.00 | 300 | \$1,200 | 200 | \$800 | 100 | \$400 | | | | 600 | |
| Mailing Lists/Labels | \$0.05 | 300 | \$15 | 200 | \$10 | 100 | \$5 | | | | 600 | |
| Postage | \$1.00 | 300 | \$300 | 200 | \$200 | 100 | \$100 | | | | 600 | |
| Mailing House | \$0.05 | 300 | \$15 | 200 | \$10 | 100 | \$5 | | | | 600 | |
| | | | \$2,530 | | \$2,020 | | \$1,510 | | | | | \$6,060 |
| Advertising | | | | | | | | | | | | |
| IEEE Pubs | | | \$5,000 | | \$5,000 | | \$5,000 | | \$10,000 | | | |
| Elsewhere | | | \$5,000 | | \$5,000 | | \$5,000 | | \$10,000 | | | |
| | | | \$10,000 | | \$10,000 | | \$10,000 | | \$20,000 | | | \$50,000 |
| Give-aways | | | | | | | | | | | | |
| Cost | \$4 | | | | | | | 3000 | \$12,000 | | 3000 | \$12,000 |
| Additional Publicity cost | | | \$24,017 | | \$15,502 | | \$8,297 | | \$2,183 | | | \$50,000 |
| PUBLICITY TOTALS | | | \$55,547 | | \$46,522 | | \$29,207 | | \$114,233 | | | \$245,510 |

AMENDMENT:
*Added \$50,000 publicity cost
(distributed according to attendance
to have a proportional impact on s

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| | ICNN | | FUZZ | | EvComp | | Congress | | TOTAL | | Notes |
|---------------------------|------|-------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|-------------|
| | Fee | Count | Amount | Count | Amount | Count | Amount | Count | Amount | Count | |
| PUBLICATIONS | | | | | | | | | | | |
| Advanced Program | | | | | | | | | | | |
| Layout | \$50 | | | | | | | | | | |
| Printing | \$2 | | | | | | | 30 | \$1,500 | 30 | |
| Mailing Lists/Labels | \$0 | | | | | | | 4000 | \$8,000 | 4000 | |
| Postage | \$1 | | | | | | | 4000 | \$200 | 4000 | |
| Mailing House | \$0 | | | | | | | 4000 | \$4,000 | 4000 | |
| | | | | | | | | 4000 | \$200 | 4000 | |
| | | | | | | | | | \$13,900 | | \$13,900 |
| Final Program | | | | | | | | | | | |
| Layout | \$50 | | | | | | | | | | |
| Printing | \$2 | | | | | | | 30 | \$1,500 | 30 | |
| Mailing Lists/Labels | \$0 | | | | | | | 4000 | \$8,000 | 4000 | |
| Postage | \$1 | | | | | | | 4000 | \$200 | 4000 | |
| Mailing House | \$0 | | | | | | | 4000 | \$4,000 | 4000 | |
| | | | | | | | | 4000 | \$200 | 4000 | |
| | | | | | | | | | \$13,900 | | \$13,900 |
| Paper Proceedings Count | | | | | | | | | | | |
| Registration (from above) | | 900 | | 570 | | 300 | | 100 | | 1870 | |
| Additional sales (above) | | 700 | | 660 | | 300 | | 400 | | 2060 | |
| Overprint | | 300 | | 270 | | 100 | | 400 | | 1070 | |
| Total Printing | | 1900 | | 1500 | | 700 | | 900 | | 5000 | |
| price per page & pages | | 3000 | 0.011 | 2000 | 0.012 | 1200 | 0.013 | 240 | 0.013 | | |
| Cost | | | \$62,700 | | \$36,000 | | \$10,920 | | \$2,808 | | \$112,428 |
| Box & Shipping | \$2 | | \$3,800 | | \$3,000 | | \$1,400 | 4000 | \$1,800 | | \$10,000 |
| CD ROM | | | | | | | | | | | |
| Student Count | | 200 | | 140 | | 80 | | | | | |
| Second Medium | | 200 | | 200 | | 200 | | | | | |
| Conference Package | | 700 | | 660 | | 300 | | | | | |
| OverPrint | | 400 | | 400 | | 200 | | | | | |
| | | 1500 | | 1400 | | 780 | | | | | |
| Cost | | | \$14 | | \$14 | | \$14 | | | | |
| total | | | \$21,000 | | \$19,600 | | \$10,920 | | | | \$51,520 |
| Video | | | | | | | | | | | |
| All Costs | | | \$10,000 | | \$10,000 | | \$10,000 | | | | \$30,000 |
| TOTAL PROCEEDINGS | | | \$97,500 | | \$68,600 | | \$33,240 | | \$32,408 | | \$231,748 |
| EXHIBITS | | | | | | | | | | | |
| cost | | | | | | | | | \$20,000 | | \$20,000 |
| TOTAL EXPENSE | | | \$322,264 | | \$231,618 | | \$129,116 | | \$318,060 | | \$1,001,058 |

1993 IEEE Neural Networks Council Document
Robert J. Marks II Library Archive

| | ICNN | | FUZZ | | EvComp | | Congress | | TOTAL | | Notes | |
|---------------------|------|-------|------------------|-------|------------------|-------|------------------|-------|-------------------|-------|--------------------|--------|
| | Fee | Count | Amount | Count | Amount | Count | Amount | Count | Amount | Count | | Amount |
| SURPLUS | | | \$123,686 | | \$57,732 | | \$24,134 | | (\$54,060) | | \$151,492 | |
| INCOME | | | | | | | | | | | | |
| TOTAL REGISTRATION | | | \$378,000 | | \$232,500 | | \$119,800 | | \$15,000 | | \$745,300 | |
| TOTAL ADD SALES | | | \$59,700 | | \$50,100 | | \$28,200 | | \$12,000 | | \$150,000 | |
| TOTAL SOCIAL FUNCT. | | | \$750 | | \$750 | | \$750 | | \$3,000 | | \$5,250 | |
| TOTAL TUTORIALS | | | \$0 | | \$0 | | \$0 | | \$165,000 | | \$165,000 | |
| TOTAL EXHIBITS | | | \$0 | | \$0 | | \$0 | | \$54,000 | | \$54,000 | |
| TOTAL DONATIONS | | | \$7,500 | | \$6,000 | | \$4,500 | | \$15,000 | | \$33,000 | |
| TOTAL INCOME | | | <u>\$445,950</u> | | <u>\$289,350</u> | | <u>\$153,250</u> | | <u>\$264,000</u> | | <u>\$1,152,550</u> | |
| EXPENSES | | | | | | | | | | | | |
| TOTAL GENERAL | | | \$58,507 | | \$44,501 | | \$26,219 | | \$57,773 | | \$187,000 | |
| TOTAL TECHNICAL | | | \$58,100 | | \$38,100 | | \$21,750 | | \$77,225 | | \$195,175 | |
| TOTAL OPERATIONS | | | \$52,610 | | \$33,895 | | \$18,700 | | \$16,420 | | \$121,625 | |
| TOTAL PUBLICITY | | | \$55,547 | | \$46,522 | | \$29,207 | | \$114,233 | | \$245,510 | |
| TOTAL PROCEEDINGS | | | \$97,500 | | \$68,600 | | \$33,240 | | \$32,408 | | \$231,748 | |
| TOTAL EXHIBITS | | | \$0 | | \$0 | | \$0 | | \$20,000 | | \$20,000 | |
| TOTAL EXPENSES | | | <u>\$322,264</u> | | <u>\$231,618</u> | | <u>\$129,116</u> | | <u>\$318,060</u> | | <u>\$1,001,058</u> | |
| SURPLUS/(LOSS) | | | <u>\$123,686</u> | | <u>\$57,732</u> | | <u>\$24,134</u> | | <u>(\$54,060)</u> | | <u>\$151,492</u> | |

Tab #9
NNC Item V.I.D.9
January 1993

CIFER BUDGET

Dr. James C. Bezdek, Chair
Nystul Professor
The University of West Florida
Computer Science
11000 University Parkway
Pensacola, Florida 32514-5750

December 14, 1993

Dr. Bezdek,

I am enclosing a draft of a call for paper and a budget for the CIFER (Computational Intelligence for Financial Engineering) Conference planned to take place in New York City, from April 9 to April 11, 1995. I would like to formally propose that the IEEE Neural Networks Council cosponsor 50% of the CIFER Conference and provide \$20,000 seed funding necessary to support the preparatory activities for the conference. I would like the proposal considered at the next schedule meeting of the Meetings Committee and the Administration Committee (Jan. 22, 1994 in Dallas). I therefore request that you, as Meetings Committee Chair, please have this proposal placed on the Committee's agenda and that a copy of the proposal be included in NNC Administration Committee Book for distribution to Board members prior to the meeting. An original copy of the enclosed materials has been mailed to Dr. Patrick Simpson for convenience.

Since the proposal's original presentation to the NNC in September in Seattle, there are been several significant positive developments. The CIFER budget has been rewritten, detail added, total advance funding request has been lowered to \$40,000, and proposed NNC participation has been reduced from 75% to 50%. Joseph Boykin, the IEEE Computer Society's V.P. of Technical Activities, the committee that sanctions conferences within CS, has expressed a willingness to sponsor at least 25% and \$10,000 advance funding of CIFER. PAMI's Chair has preliminarily agreed to serve as CS' TC representative on CIFER's Steering Committee. An additional 25% sponsorship has been accepted and \$10,000 committed by the International Association of Financial Engineers (IAFE), a professional association of leading Wall Street financiers.

I have several remarks about the new CIFER budget. Numerous CS conference recommendations (TMRP) have been followed, including a 15% contingency reserve and the required 10+% conference surplus (CIFER is 16%). The budget for advertising, an area of discussions at our Seattle meeting, is significantly clearer and I hope acceptable to all. The advertising costs have been pared to 21% of total conference costs, though CS guidelines are 15%-30% and even higher for first-time conferences. Included in the advertising budget is \$5580 for 8 ads in NNC journal. Of course this money returns directly to NNC. Note that CS requires its conference administrative service fees (14% of its 25% participation) be included in the budget. However, payment for these fees is by deduction from CS' 25% share of the CIFER conference surplus. These fees are included in the budget simply as a matter of guaranteeing that the conference accounts sufficient "excess" surplus to cover the CS Conference Services' anticipated costs for such things as budget review, loan handling, liability exposure, and so on. NNC will still receive its full 50% of any CIFER surplus. We solicited NNC input (Simpson) and the proposed seed funding cash flow can be accommodated in its '94 budget. We request \$5000 1st Qtr and \$15000 3rd Qtr '94 with the amounts divided between cash for NNC ads and cash for other expenses.

Cordially,



Scott Mathews, Chair
CIFER Organizational Committee
14920 24th Ave. S.E.

Bothell, WA 98012-5718
Tel.: (206) 485-0442

IEEE/IAFE BUDGET
CONFERENCE ON COMPUTATIONAL INTELLIGENCE FOR FINANCIAL ENGINEERING
APRIL 9-12, 1995

| US DOLLARS | DESCRIPTION | QUANTITY | VALUE EACH | PRICE | TOTALS |
|---|----------------------|----------|------------|-------------|------------------|
| INCOME | | | | | |
| 6. REGISTRATION FEES | | | | | |
| Registered by 1/20/95 | | | | | |
| | Members | 43 | \$350.00 | \$15,050.00 | |
| | Non-Members | 15 | \$500.00 | \$7,500.00 | |
| | Reduced Rate | 9 | \$140.00 | \$1,260.00 | |
| Registered by 3/10/95 | | | | | |
| | Members | 27 | \$400.00 | \$10,800.00 | |
| | Non-Members | 14 | \$550.00 | \$7,700.00 | |
| | Reduced Rate | 5 | \$190.00 | \$950.00 | |
| Registered at Conference | | | | | |
| | Members | 109 | \$450.00 | \$49,050.00 | |
| | Non-Members | 23 | \$600.00 | \$13,800.00 | |
| | Reduced Rate | 5 | \$240.00 | \$1,200.00 | |
| TOTAL REGISTRATION | | | | | \$107,310 |
| | Members | 179 | | | |
| | Non-Members | 52 | | | |
| | Reduced Rate | 19 | | | |
| | Total Registered | 250 | | | |
| LUNCHEON FEE | | 200 | \$10.00 | \$2,000.00 | \$2,000 |
| TOTAL REGISTRATION INCOME | | | | | \$109,310 |
| 7. CONFERENCE PUBLICATION SALES | | | | | |
| | To IEEE Headquarters | 100 | \$30.00 | \$3,000.00 | |
| TOTAL CONFERENCE PUBLICATION SALES | | | | | \$3,000 |
| 8. EXHIBITS | | | | | |
| | Tables/Publishers | 4 | \$250.00 | \$1,000.00 | |
| | Booths/All Others | 15 | \$500.00 | \$7,500.00 | |
| TOTAL EXHIBITS | | | | | \$8,500 |

IEEE/IAFE BUDGET
CONFERENCE ON COMPUTATIONAL INTELLIGENCE FOR FINANCIAL ENGINEERING
APRIL 9-12, 1995

| US DOLLARS | DESCRIPTION | QUANTITY | VALUE EACH | PRICE | TOTALS |
|--|--|----------|------------|-------------|-----------|
| 9. SOCIAL FUNCTIONS | | | | | |
| 10. ALL OTHER CONFERENCE RECEIPTS - TUTORIALS | | | | | |
| | Registered by 1/20/95 - Multiple | | | | |
| | Members | 9 | \$300.00 | \$2,700.00 | |
| | Non-Members | 3 | \$375.00 | \$1,125.00 | |
| | Registered by 3/10/95 - Multiple | | | | |
| | Members | 6 | \$350.00 | \$2,100.00 | |
| | Non-Members | 2 | \$425.00 | \$850.00 | |
| | Registered at Conference - Multiple | | | | |
| | Members | 25 | \$400.00 | \$10,000.00 | |
| | Non-Members | 5 | \$500.00 | \$2,500.00 | |
| | Registered by 1/20/95 - Single | | | | |
| | Members | 9 | \$175.00 | \$1,575.00 | |
| | Non-Members | 3 | \$225.00 | \$675.00 | |
| | Registered by 3/10/95 - Single | | | | |
| | Members | 6 | \$225.00 | \$1,350.00 | |
| | Non-Members | 2 | \$275.00 | \$550.00 | |
| | Registered at Conference - Single | | | | |
| | Members | 25 | \$275.00 | \$6,875.00 | |
| | Non-Members | 5 | \$325.00 | \$1,625.00 | |
| | TOTAL ALL OTHER CONFERENCE RECEIPTS | | | | \$31,925 |
| | 11. TOTAL CONFERENCE INCOME | | | | \$152,735 |
| | 12. CONFERENCE LOANS | | | | |
| | IEEE - Neural Networks (50%) | | | | \$20,000 |
| | IEEE - Computer Society (25%) | | | | \$10,000 |
| | IAFE (25%) | | | | \$10,000 |
| | TOTAL CONFERENCE LOANS | | | | \$40,000 |
| | 13. TOTAL RECEIPTS | | | | \$192,735 |

IEEE/IAFE BUDGET
CONFERENCE ON COMPUTATIONAL INTELLIGENCE FOR FINANCIAL ENGINEERING
APRIL 9-12, 1995

| US DOLLARS | DESCRIPTION | QUANTITY | VALUE EACH | PRICE | TOTALS |
|------------|--|------------|------------|------------|----------|
| | 1 page in PAMI | 1 | \$825.00 | \$825.00 | |
| | 1 page in IAFE Financial Engineering | 1 | \$825.00 | \$825.00 | |
| | 1/2 page in RISK | 1 | \$1,000.00 | \$1,000.00 | |
| | 1/2 page in 2 Other Financial Society's Mag. | 2 | \$570.00 | \$1,140.00 | |
| | Other | | | | |
| | TOTAL PROMOTION | | | | \$28,862 |
| | 15. CONFERENCE PUBLICATION | | | | |
| | Final Program (artwork and printing) | | | \$2,750.00 | |
| | Tutorials Syllabus/Notebooks | 100 | \$5.00 | \$500.00 | |
| | Conference Record/Digest Printing | 400 | \$16.00 | \$6,400.00 | |
| | Shipping (Conference/IEEE) | | | | |
| | Shipping from Printers to Conference | 275 | \$0.50 | \$138.00 | |
| | Shipping from Printers to IEEE | 100 | \$0.50 | \$50.00 | |
| | TOTAL CONFERENCE PUBLICATION | | | | \$9,838 |
| | 16. EXHIBITS | | | | |
| | Signage | 20 | \$51.00 | \$1,020.00 | |
| | Prospectus and Contract | 19 | \$20.00 | \$380.00 | |
| | Furniture | 19 | \$26.00 | \$494.00 | |
| | Comm w. Exhibitors | 100 | \$0.45 | \$45.00 | |
| | TOTAL EXHIBITS | | | | \$1,939 |
| | 17. SOCIAL FUNCTIONS | | | | |
| | Optional Tours (1) | | | | |
| | Org. Committee Breakfast | 15 people | \$20.00 | \$300.00 | |
| | Coffee Breaks/Tutorial | | | | |
| | Coffee in the morning for 100 People | 10 gallons | \$40.00 | \$400.00 | |
| | Coffee in the afternoon for 30 People | 3 gallons | \$40.00 | \$120.00 | |
| | Sodas in the afternoon for 70 people | 103 sodas | \$1.75 | \$180.00 | |
| | Coffee Breaks/Committee - 5 gallons | 5 gallons | \$40.00 | \$200.00 | |
| | Coffee Breaks/Conference | | | | |
| | Monday morning coffee break for 275 people | 27 gallons | \$40.00 | \$1,080.00 | |
| | Monday afternoon coffee break for 75 people | 7 gallons | \$40.00 | \$280.00 | |
| | Monday afternoon soda for 200 people | 200 sodas | \$1.75 | \$350.00 | |
| | Monday afternoon snack | 250 | \$1.00 | \$250.00 | |
| | Tuesday morning coffee break for 275 people | 27 gallons | \$40.00 | \$1,080.00 | |
| | Tuesday afternoon coffee break for 75 people | 7 gallons | \$40.00 | \$280.00 | |
| | Tuesday afternoon soda for 200 people | 200 sodas | \$1.75 | \$350.00 | |
| | Tuesday afternoon snack | 260 | \$1.00 | \$260.00 | |

IEEE/IAFE BUDGET
CONFERENCE ON COMPUTATIONAL INTELLIGENCE FOR FINANCIAL ENGINEERING
APRIL 9-12, 1995

| US DOLLARS | DESCRIPTION | QUANTITY | VALUE EACH | PRICE | TOTALS |
|-----------------------|---|----------|------------|------------|--------|
| EXPENSES | | | | | |
| 14. PROMOTION: | | | | | |
| | Printing/Call for Papers (2 pages on heavier stock) | | | \$100.00 | |
| | Artwork & Typesetting | | | | |
| | Printing | 10,000 | \$0.12 | \$1,150.00 | |
| | Printing/Advance Announcement (6 pages) | | | \$300.00 | |
| | Artwork & Typesetting | | | | |
| | Printing (2,500 for hand distribution) | 25,000 | \$0.09 | \$2,250.00 | |
| | Mailing Lists/Labels | | | | |
| | Mailing Labels - Call for Papers | 5,625 | \$0.04 | \$219.38 | |
| | Mailing Labels - Non IEEE - Call for Papers | 1,875 | \$0.11 | \$200.63 | |
| | Mailing Labels - Advance Announcement | 16,875 | \$0.04 | \$658.13 | |
| | Mailing Labels - Non IEEE - Adv. Announce. | 5,625 | \$0.11 | \$601.88 | |
| | Postage | | | | |
| | Mailing - Postage Third Class Call for Papers | 6,750 | \$0.11 | \$749.25 | |
| | Mailing - Postage for Non-U.S. Call for Papers | 750 | \$0.50 | \$375.00 | |
| | Labor - Call for Papers Postage | 7,500 | \$0.06 | \$450.00 | |
| | Labor envelope insertion - Call for Papers | | | \$50.00 | |
| | Mailing - Postage Third Class - Advance Ann. | 20,250 | \$0.11 | \$2,247.75 | |
| | Mailing - Postage for Non-U.S. - Adv. Ann. | 2,250 | \$0.50 | \$1,125.00 | |
| | Labor - Advance Announcement | 22,500 | \$0.06 | \$1,350.00 | |
| | Labor envelope insertion - Advance Ann. | 2,250 | \$0.05 | \$100.00 | |
| | Advertising for Call for Papers | | | \$50.00 | |
| | Artwork and Typesetting | | | | |
| | 1/2 page in IEEE Expert | 1 | \$570.00 | \$570.00 | |
| | 1/2 page in Comp Science & Engineering | 1 | \$570.00 | \$570.00 | |
| | 1/2 page in Neural Networks | 2 | \$570.00 | \$1,140.00 | |
| | 1/2 page in Fuzzy Systems | 2 | \$570.00 | \$1,140.00 | |
| | 1/2 page in Data & Engineering | 1 | \$570.00 | \$570.00 | |
| | 1/2 page in PAMI | 1 | \$570.00 | \$570.00 | |
| | 1/2 page in IAFE Financial Engineering | 1 | \$570.00 | \$570.00 | |
| | 1/2 page in RISK | 1 | \$1,000.00 | \$1,000.00 | |
| | 1/2 page in Other Financial Society's Mag. | 2 | \$570.00 | \$1,140.00 | |
| | Advertising for Advance Announcement | | | \$50.00 | |
| | Artwork and Typesetting | | | | |
| | 1 page in Expert | 1 | \$825.00 | \$825.00 | |
| | 1 page in Comp Science & Engineering | 1 | \$825.00 | \$825.00 | |
| | 1 page in Neural Networks | 2 | \$825.00 | \$1,650.00 | |
| | 1 page in Fuzzy Systems | 2 | \$825.00 | \$1,650.00 | |
| | 1 page in Data & Engineering | 1 | \$825.00 | \$825.00 | |

IEEE/IAFE BUDGET
CONFERENCE ON COMPUTATIONAL INTELLIGENCE FOR FINANCIAL ENGINEERING
APRIL 9-12, 1995

| US DOLLARS | DESCRIPTION | QUANTITY | VALUE EACH | PRICE | TOTALS |
|------------|--|----------|------------|-------------|----------|
| | Opening Reception Sunday Night | | | | |
| | Cheese Board for 200 people/Cash Bar | 200 | \$25.00 | \$5,000.00 | |
| | Reception | | | | |
| | Sit Down Lunch Monday for 200 people | 200 | \$30.00 | \$6,000.00 | |
| | TOTAL SOCIAL FUNCTIONS | | | | \$16,050 |
| | 18. ADMINISTRATION | | | | |
| | Insurance and Bonding | | | \$100.00 | |
| | Security and guard service | | | | |
| | 1 guard for 48 hours | 48 | \$22.00 | \$1,056.00 | |
| | Audio-video rental and operation | | | | |
| | 3 overhead projector for tutorial | 3 | \$100.00 | \$300.00 | |
| | 4 overhead projector for 2 days | 4 | \$200.00 | \$800.00 | |
| | 1 projection unit for 1 day | 1 | \$790.00 | \$790.00 | |
| | 2 projection unit for 1 day - tutorial | 2 | \$790.00 | \$1,580.00 | |
| | 3 screens for tutorial | 3 | \$50.00 | \$150.00 | |
| | 4 screens for 2 days | 4 | \$100.00 | \$400.00 | |
| | Projectionist Labor | | | \$900.00 | |
| | Management Fee (Meeting Management) | | | \$18,000.00 | |
| | Office Equipment Rental | | | | |
| | Hookup of phone at the hotel | | | \$100.00 | |
| | Phone calls at the hotel | | | \$50.00 | |
| | Rental of computer/printer equipment | | | \$300.00 | |
| | Conference Posters | | | | |
| | Posters In Lobby | 1 | \$75.00 | \$75.00 | |
| | Posters at the Tutorial | 3 | \$75.00 | \$225.00 | |
| | Posters at Meeting Area | 3 | \$75.00 | \$225.00 | |
| | Posters in Dinner Area | 2 | \$75.00 | \$150.00 | |
| | Badges | 250 | \$1.00 | \$250.00 | |
| | Telephone, FAX, Copying | | | \$2,000.00 | |
| | Regist. assis/Bookkeeping | | | \$500.00 | |
| | Registration supplies | | | \$100.00 | |
| | Committee Travel | 8 | \$500.00 | \$4,000.00 | |
| | Chairman's Discretionary Budget | | | \$2,000.00 | |
| | Commitee Meetings | 2 | \$1,000.00 | \$2,000.00 | |
| | Stationary | | | \$600.00 | |
| | Gratuities | | | \$500.00 | |
| | TOTAL ADMINISTRATION | | | | \$37,151 |

IEEE/IAFE BUDGET
CONFERENCE ON COMPUTATIONAL INTELLIGENCE FOR FINANCIAL ENGINEERING
APRIL 9-12, 1995

| US DOLLARS | DESCRIPTION | QUANTITY | VALUE EACH | PRICE | TOTALS |
|--|--|----------|------------|--------------|-----------|
| 19. ALL OTHER CONFERENCE EXPENSES | | | | | |
| | Tutorials/Honor./Expenses | | | | |
| | Honorariums | 6 | \$500.00 | \$3,000.00 | |
| | Honorariums Travel - 4 people | 4 | \$500.00 | \$2,000.00 | |
| | Honorariums Travel - 2 people | 2 | \$100.00 | \$200.00 | |
| | Honorariums Lodging | 4 | \$300.00 | \$1,200.00 | |
| | Honorariums Meals and Misc Expense | 4 | \$150.00 | \$600.00 | |
| | Tutorial Meeting Room Expenses (No Charge) | | | \$0.00 | |
| | Keynote & Invited Speakers Expenses | | | | |
| | Invited Speakers Travel | 3 | \$500.00 | \$1,500.00 | |
| | Invited Speakers Lodging | 3 | \$300.00 | \$900.00 | |
| | Invited Speakers Meals and Misc Exp | 4 | \$200.00 | \$800.00 | |
| | Audit | | | \$2,500.00 | |
| | Postage between Committee members | | | \$500.00 | |
| | Reproduction | | | \$500.00 | |
| | E-Mail | | | \$500.00 | |
| | Program Chairman Secretarial Support | 200 | \$12.50 | \$2,500.00 | |
| | Conference Meeting Room Expenses | | | \$1,000.00 | |
| | Organizational Committee Expenses | | | \$1,600.00 | |
| | Contingency Reserves | | | \$14,623.00 | |
| | Computer Society Administrative Services | | | \$3,412.00 | |
| | TOTAL ALL OTHER CONFERENCE EXPENSES | | | | \$37,335 |
| | 20. TOTAL CONFERENCE EXPENSES | | | | \$131,175 |
| | Meeting | | | \$107,957.00 | |
| | Tutorial | | | \$19,669.00 | |
| | Exhibit | | | \$3,549.00 | |
| | 21. LOAN REPAYMENTS | | | | |
| | IEEE - Neural Networks (50%) | | | \$20,000.00 | |
| | IEEE - Computer Society (25%) | | | \$10,000.00 | |
| | IAFE (25%) | | | \$10,000.00 | |
| | TOTAL LOAN REPAYMENTS | | | | \$40,000 |
| | 22. TOTAL OUTLAYS | | | | \$171,175 |

IEEE/IAFE BUDGET
CONFERENCE ON COMPUTATIONAL INTELLIGENCE FOR FINANCIAL ENGINEERING
APRIL 9-12, 1995

| US DOLLARS | DESCRIPTION | QUANTITY | VALUE EACH | PRICE | TOTALS |
|----------------|--------------------------|----------|------------|-------|-----------|
| SURPLUS (LOSS) | | | | | |
| | 23. TOTAL RECEIPTS | | | | \$192,735 |
| | 24. TOTAL OUTLAYS | | | | \$171,175 |
| | 25. SURPLUS | | | | \$21,560 |
| | Surplus % Above Expenses | | | | 16% |

Tab #9
NNC Item VI.D.10
January 1993

ICNN 95 NORTH AMERICA REPORT

UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98195

Department of Electrical Engineering, FT-10
Telephone: (206) 543-6990 (office), 543-6061 (secretary),
543-2150 (main office), 776-8995 (home), 543-3842 (FAX), 776-9297 (home FAX).
marks@u.washington.edu

December 14, 1993

James C. Bezdek, Chair
NNC Meetings Committee
The University of West Florida
Computer Science
11000 University Parkway
Pensacola, Florida 32514-5750
FAX 904 474 2096

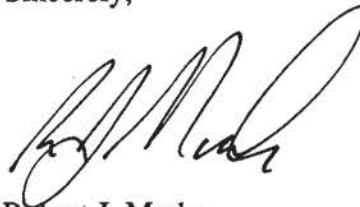
Background:

You appointed a sub committee of the Meetings Committee to explore a North American ICNN in 1995. I was appointed Chair. The NNC has an obligation to hold a meeting at the Sheraton in Washington D.C. The attached letter states that holding the ICNN in D.C. in 1995 will fulfill this obligation.

Motion:

The 1995 North American ICNN be held in Washington D.C. over the dates June 30 to July 7.

Sincerely,




Robert J. Marks

cc: Patrick K. Simpson, NNC President Elect
NNC AdCom



MEETING MANAGEMENT

MEMORANDUM

TO: BOB MARKS
FROM: STEVE MARLIN 
DATE: 12/9/93
RE: NEURAL NETWORKS, WASHINGTON D.C.

BOB...

FINALLY! ENCLOSED IS THE LETTER (WHY IT TOOK SO LONG I DON'T KNOW) FROM THE SHERATON WASHINGTON APPROVING THE MOVE TO 1995 AND THE REDUCTION IN RATE (RATE REDUCTIONS AMOUNT TO APPROXIMATELY \$40 PER NIGHT!). ONCE YOU HAVE RECEIVED APPROVAL FOR THE CHANGE, KINDLY HAVE THE DOCUMENT EXECUTED APPROPRIATELY, AND RETURN THE ORIGINAL TO THIS OFFICE, KEEPING A COPY FOR YOUR FILES. I WILL FORWARD THE ORIGINAL TO THE HOTEL ALONG WITH A COVER LETTER.

AS ALWAYS, WE AT MEETING MANAGEMENT APPRECIATE THE OPPORTUNITY TO BE OF SERVICE TO THE NEURAL NETWORK COUNCIL. IF YOU HAVE ANY QUESTIONS, PLEASE DO NOT HESITATE TO CONTACT ME. UNTIL THEN, YOU HAVE MY BEST REGARDS.

Conventions • Meetings • Conferences • Symposia

Sheraton Washington
HOTEL

December 2, 1993

Mr. Steve Marlin
MEETING MANAGEMENT INC.
2603 Main Street
Irvine, CA 92714

Dear Steve:

It was a pleasure speaking with you on November 12, 1993 regarding the Conference on Neural Network - IEEE.

Currently, the Sheraton Washington Hotel has the availability to handle the date change from May 31 to June 7, 1996 to June 30 to July 7, 1995.

The gross guest room rate will be \$120.00 single or double occupancy (children under 17 years old stay for free with paying adult) and \$20.00 per additional person plus current taxes.

Please sign and return this date and guest room rate change letter by December 20, 1993.

Sincerely,

Katherine

Katherine D. Sonn
National Account Manager

Accepted

KDS:sp



Tab #10
NNC Item VI.E.1
January 1993

**PUBLICATIONS COMMITTEE MINUTES FROM
SEPTEMBER 18, 1993**

NNC PUBLICATIONS COMMITTEE MINUTES
SEPT 18, 1993
SEATTLE, WA

The NNC Publications Committee met on Saturday, Sept 18, 1993
from 8:30-9:30 at the Seattle Sheraton, RM 416.

Those in attendance were:

Stamatios V. Kartalopoulos, NNC Pub-Com Chairman
Robert Marks, II, Trans Neural Networks Editor-in-Chief
James Bezdek, Trans Fuzzy Systems Editor-in-Chief
Wes Snyder, Connections Newsletter Editor
Robert Newcomb, NNC AdCom Member
Don Brown, NNC AdCom Member

A preliminary agenda was presented and approved as reorganized:

ADGENDA PUB COMMITTEE

SEPTEMBER, 1993

1. Minutes from previous meeting ... All (4 mins)
 2. TFS Bezdek
 3. Book sponsoring involvement ... Kartalopoulos
 4. PUB Committee Organization Kartalopoulos
 - a. Book Review Sub-Committee
 - b. Book Promotion Sub-Committee
 5. Book status Kartalopoulos
 6. TNN Marks
 7. JACI Brown
 8. Newsletter..... Snyder
-
1. The minutes from the previous 3/27/93 meeting were approved as presented.
 2. Bezdek submitted Appendix B: Financial Input Data and Appendix C: Detailed Cost Data for the Transaction on Fuzzy Systems (TFS). These data were also submitted to AdCom (under Editor Reports, Transactions on Fuzzy Systems). Bezdek reported that IEEE wants to print an additional 5,000 TFS copies (total 9,000) but when IEEE was asked by Bezdek for the reason, no clear answer was given. Bezdek reported that no page increase is requested for TFS 1994.
 3. Kartalopoulos reported on the growing number of NNC sponsored books and hence of the increased amount of work needed by the Publications Committee:

BOOKS IN PROGRESS:

- * Gupta/Knopf: reprint book on Neuro-Vision; in production; out 1Q94. IT NEEDS a. NNC reviewers, and b. NNC plan for promotion.
- * Haykin: on Neural Nets; in production. IT NEEDS a. NNC reviewers, and b. NNC plan for promotion. IEEE Press proposes a joint sponsorship with Computer Society press if NNC not interested to fully participate.

- * Gupta/Rao: reprint book on Neuro-control; in production; out 1Q94.
IT NEEDS a. NNC reviewers, and b. NNC plan for promotion.
 - * Gupta/Sinha: book on "Intelligent Systems"; MS draft received.
IT NEEDS a. NNC reviewers, and b. NNC plan for promotion.
 - * Fogel: book on Evolutionary Programming; MS by December
 - * Langari/Yen/Zadeh: "Fuzzy Model Applications in Industry"; in preparation.
IT NEEDS a. NNC reviewers, and b. NNC plan for promotion.
 - * Ichiro Masaki: book on "Intelligent Vehicles"; proposal received
IT NEEDS a. NNC reviewers, and b. NNC plan for promotion.
 - * Caudell: late, book style changed, the plan is still "fuzzy"
4. Kartalopoulos reported on the Committee's issues and challenges to meet the demand of the increased Book activity, as follows:

ISSUES

- * Book sponsoring activity increases rapidly.
- * A technical book review requires a lot of time.
- * Hard to find book reviewers.
- * Interaction with IEEE Press expected to increase to "almost" a full time job.
- * Many phone calls and correspondence paid from personal funds.
- * Pub Committee's present structure cannot cope with load and/or expenses.

CHALLENGES

- * Interest in book publishing through IEEE Press and in NNC sponsorship increases.
- * Books sponsored by NNC is a good service to members.
- * More services to membership would result in Membership increase.
- * If more participation of NNC in book production, then better returns from IEEE Press.

PUB-COMMITTEE PROPOSAL TO NNC (AdCom):

To meet the increased activity in Book sponsorship and increase the returns from royalties, the Committee approved the motions (for recommendation to NNC):

MOTION (passed):

The Publication Committee requests budget from the NN Council, at \$1.2K for 1993 and \$3.0K for 1994. These monies will be used to cover secretarial and other incidental expenses necessary to enhance the book reviewing process, and to develop closer links with IEEE Press book promotion and coordination effort.

MOTION (passed):

The organization of the Committee into a Non-Periodicals Editorial Board

- * to maintain list of book reviewers
- * to coordinate book reviews and evaluate book proposals.

and the IEEE Press Liaison

- * to coordinate w/IEEE Press NNC book promotion in NNC Trans/Newsletters
- * to coordinate w/IEEE Press NNC book promotion in Conferences.

5. Kartalopoulos reported on the Book status as follows:

NNC BOOK SPONSORING ACTIVITY PUBLISHED BOOKS: (as of July 1993)

Lau: 619 copies sold for \$20,579 in 1993

2256 sold for \$75,625 since publication
Total sponsor royalty to date: \$1012.50

Sanchez/Lau: 509 copies for \$22,951 in 1993
1804 copies for \$85,872 since publication
Total sponsor royalty \$1217.44 (NNC+CAS)

Bezdek/Pal: 655 copies for \$33,907 in 1993
2051 sold for \$109,453
Total sponsor royalty \$1783.59

Total NNC royalty: \$3404.59

6. A motion submitted by Robert Marks (see AdCom Book page 144) to increase the charge of paper excess pages for TNN by \$125/page was discussed. MOTION passed.

The followin MOTION was also passed:

"The Publications Committee recommends that the AdCom directs the TNN Editor to write a letter to the Chair of IEEE Pub Board with copy to IEEE President and President-Elect indicating that the review of Dr. Kosko's book (see pp 72-73 of AdCom book) will be published in the November 1993 TNN issue unless explicitly prohibited by the President of IEEE".

7. Don Brown made a presentation of the proposed "Journal on Applied Computational Intelligence". The Committee APPROVED the proposal.
8. Wes Snyder reported on the Newsletter "tutorial" nature aarticles. In addition, he raised the question on advertisement fees in the Newsletter.

MOTION (passed):

The IEEE general guidelines should be followed and 40% should be granted to IEEE Conferences NOT sponsored by NNC

MOTION (passed):

Advertisement rates should be increased by 5%.

Respectfully submitted

Stamatios V Kartalopoulos, Ph.D.
Publ Committee, Chair

Tab #10
NNC Item VI.E.2
January 1993

PUBLICATIONS COMMITTEE REPORT

From: svk@hotmaild.att.com
Date: Tue, 14 Dec 93 09:47 EST
To: psimpson@orincon.com
Subject: re: AdCom meeting-1/22/94

Pat,

You have asked for a number of items from me.
FYI, I'll address them one at a time & in the same order
(this will be part of my presentation at the AdCom):

1. PUBLICATIONS COMMITTEE BUDGET (proposed)-1994:

| | |
|--------------------------------------|----------|
| a. bubble jet printer | 350.00 |
| (1 year apportioned) | |
| printer cartridges | 50.00 |
| b. fax machine cost | 450.00 |
| (1 year apportioned) | |
| fax cartridges | 50.00 |
| c. Telephone charges (1 year) | 150.00 |
| d. Postage (1 year) | 100.00 |
| e. Attend IEEE Press mtngs (2)..... | 1,300.00 |
| f. Attend ExCom/AdCom mtngs (3)..... | 2,000.00 |
| g. Promotional Activities | 500.00 |
| h. Miscellaneous | 50.00 |
| | ===== |
| Total | 5,000.00 |

2. IEEE PUBLICATIONS BOARD MEETING - Phoenix 10/23/93

The meeting took place between 10/22-24/93
at the Embassy Suites Hotel, in Camelhead, Phoenix, AZ.
(By the way, for future meetings, it is a nice and very inexpensive Hotel)

The topics discussed were Book Product Definitions, Financials, & Marketing.
In addition, Book Sponsoring Issues, Attracting Quality Authors and Projects,
Liaison-Press issues, etc.

I made a proposal on the sponsoring Society/Council royalty fees. (If
there is time at the AdCom meeting, I can present a summary of it).

The highlights of the proposal are:

Background, an Example (NNC sponsored 3 successful books and the fee is
very little), what Societies/Councils can do to contribute more into the
success of a book. Proposal of a Royalty Plan, with rules and conditions,
up to 5%. This proposal also identifies the reviewer honorarium.

In general, the proposal was received positively, (at the exception of
R Hoyt-Liaison of the Magnetics Society!) who wanted more studies on the
financial picture of the proposal. A sub-committee was formed (I'm
included, too) to do so. However, IEEE Press has already started a new
sponsor's royalty plan, based on my proposal, with the new books Haykin,
Gupta/Sinha, etc (see item 4, Book Activity).

In sort, IEEE is willing to give more to sponsors, if they contribute
more in the development and promotion of the book.

3. PUB-COM MEETING MINUTES:

***** are sent separately *****

4. BOOK ACTIVITY:

A. PUBLISHED BOOKS PERFORMANCE:

1. Lau: total books sold: 2465 for \$82,480
(1993: 828 books for \$27,434)
2. Sanchez/Lau: total books sold: 1960 for \$92,880
(1993: 665 books for \$29,959)
3. Bezdek/Pal: total books sold: 2367 for \$124,923
(1993: 971 books for \$49,377)

B. BOOKS IN PROGRESS:

1. Haykin (original book on NN):
2nd MS in final form.
Under final review.
Royalty: (In negotiation) 5% from IEEE Press Sales and 2.5% from
Computer Society Press Sales.
IT NEEDS aggressive NNC participation (in promotion).
2. Gupta/Sinha (reprint book on Intel. systems):
Sponsors: NNC (primary), CAS (secondary)
MS under 2nd review
Royalty: (In negotiation) NNC 3.5%, CAS 1.5% (from IEEE Press Sales)
IT NEEDS aggressive NNC participation (in promotion).
3. Gupta/Knopf: reprint book on Neuro-Vision; in production; out 3/94.
Royalty: (In negotiation)
IT NEEDS aggressive NNC participation (in promotion) if more than 1%.
4. Gupta/Rao: reprint book on Neuro-control; in production; out 3/94.
IT NEEDS aggressive NNC participation (in promotion) if more than 1%.
5. Fogel: book on Evolutionary Programming; MS by December
In search of NNC reviewers and NNC plan for promotion if more than 1%.
6. Langari/Yen/Zadeh: "Industrial Applications of Fuzzy Control and
Intelligent Systems"
MS partially done.
In search of NNC reviewers and NNC plan for promotion if more than 1%.
7. Ichiro Masaki: book on "Intelligent Vehicles"; proposal received
Waiting for MS.
8. Caudell: status: inactive

5. FUTURE PLANS OF PUBLICATIONS COMMITTEE

The Pub-Com will expand into two areas: Sponsoring Books and Education.

Sponsoring Books:

This activity starts with identifying a potential author(s) and ends with the promotion of the printed book. Based on the number of "books in progress" and the level of activity of the Committee, the Pub-Com is expected to grow, as discussed and approved at last AdCom meeting; this will include a Non-periodicals Board and the IEEE Press Liaison. The activities of the Committee are expected to expand in all areas of "Computational Intelligence" including GA, VR, and IFE (Intel. Financial Eng.).

New authors will be sought for quality monographs and PhD thesis.

The Committee will also seek for International authors.

Potential "quick" books from Workshops on NN, FL, and GA will be explored.

Education:

A list of speakers will be compiled of scientists willing to give

talks in the area of "Computational Intelligence" (NN, FL, VR & GA)
and in their geographic areas.

This educational program, is expected to have many short and long term
benefits to the Council.

Liaisons with other IEEE regions will be developed; I already have
initiated exploratory dialog with members of region 8. First indications
have been very positive.

The latter activity has the potential of "quick" book contributions,
joint workshops, and the formation of nucleus teams in CI within the
various regions.

interested parties. Received encouragement from European sources to organize ANN glossary liasons quickly. See VR Report.

WNN93/FNN93 San Francisco, November, 1993

W. Karplus (M. L. Padgett at no cost to NNC)

Held ANN Standards Tutorial, NASA Ames Tour by FZ Working Group Chair H. Berenji. Held 3 days of Standards Meetings on ANN Glossary (Padgett), ANN Performance and Training (Green and de Angelis), ANN Interfaces (Deiss), FZ (Berenji). Held Open House, informal Luncheon Discussions, Panel Discussion, Luncheon Technical Briefing, tours of local laboratories at NASA Ames and Stanford. Awarded paper competition prizes to students from Stanford. Planned other activities also. See VR Report. Note: Co-sponsored by NASA.

NIPS 93, November, 1993

S. Deiss (No cost to IEEE-NNC)

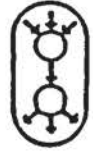
Attended NIPS and discussed IEEE-NNC ANN Interface Standards potentials. Plans for higher profile standards activities at NIPS 94 are underway, and supportive suggestions are requested.

OUTREACH ACTIVITIES: Responded in a positive manner to ALL invitations to come and talk or hold meetings provided the inviting group provided financing and room space. All outreach activities are held on a non-profit basis. Email and Connections articles provide valuable contacts. The next Connections issue will contain a survey form for responses. The outreach program is intended to meet the needs of the entire community and to solicit input from a diverse set of people. An international outreach is needed. The people at IJCNN Beijing, IJCNN Nagoya and all NNC meetings have expressed a need for continual effort to improve communications and credibility in all of Computational Intelligence by working TOGETHER on IEEE-NNC Standards. Communications with other professional societies have been friendly and productive, with no competitive efforts surfacing. We continue to strive to be ecumenical in the approach to standards designed to meet the needs and win the support of the entire interested international community.

IEEE-NNC Technical Cooperation has been continued for the WNN/FNN NASA co-sponsored non-profit meetings. These meetings began in Auburn in 1990. After 3 years, it was decided to move the meeting and accept all invitations to work with other groups. In particular, NASA/JSC was interested in hosting the meeting. The next 3 meetings were planned to be joint events with other conferences, with WNN/FNN being held to be non-profit and under 125 attendees, and cooperating with all interested societies. This covered WNN/FNN92 Houston, WNN/FNN93 San Francisco and will cover WNN/FNN94 San Diego in June, although the June meeting will be biological, and will not have standards discussions. This joint meeting approach was not acceptable, so the next 5 meetings have been planned to be independent of other meetings, and to be in cooperation with all interested societies and non-profit. The meetings will stay under about 125 people. They will be NASA co-sponsored and will be in Washington DC, Fall 1994, at NASA/JSC in the fall of 1995, and have been invited to be near LLNL, near NASA Lewis and near Orlando in 1995 and 1996. These meetings have approval by NASA for discussion of standards on ANNs, FZ, CP and Virtual Reality. Hopefully they will provide a strong basis for support for the IEEE Standards efforts in these areas.



NEURAL NETWORKS COUNCIL



Robert J. Marks II
Past President

PLEASE REPLY TO:
Interactive Systems Design Laboratory
Department of Electrical Engineering, FT-10
University of Washington
Seattle, WA 98198 USA
Tel: (206) 543-6990 (O)
Tel: (206) 776-8995 (H)
Fax: (206) 543-3842
e-mail: marks@milton.u.washington.edu

December 14, 1994

Patrick K. Simpson, President-Elect
IEEE Neural Networks Council
ORINCON Corporation
9363 Towne Centre Drive
San Diego, CA 92121

I request the following motion be placed on the agenda of the January 22, 1993 AdCom meeting.

BACKGROUND:

I was tasked by President Eberhart to explore the reason why the NNC fuzzy tapes were being advertised by the IEEE Computer Society without reference to the IEEE NNC's sponsorship. Peter Wiesner claims the fuzzy tape series, administered by Dr. El-Sharkawi, NNC Video Tutorial Chair, is the most successful EAB video project ever.

There were three items to be resolved.

1. Why was the NNC not cited in the IEEE Computer Society ads? How will such citation be made in the future?
2. What is the financial impact of the sales of fuzzy tapes by the IEEE NNC.
3. The fuzzy tutorial speakers were asked by Peter Wiesner to tape shorter one hour tapes. What was the intended use of these other tapes?

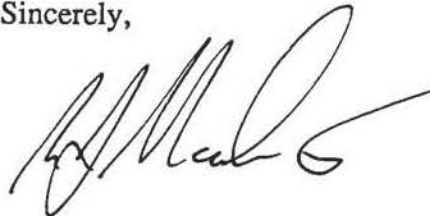
Here are my findings and recommendations.

1. The NNC not being cited was an oversight. The attached letter from the IEEE Computer Society clearly states as much. The NNC will be cited in the future. If the promises are kept, I propose that this matter be considered closed.
2. The financial aspect of the EAB contract with the IEEE Computer Society is not yet known. I have requested orally and via e-mail such an accounting. I propose the only acceptable financial arrangement results in the same royalty (in dollars, not per cent) from CS sales as from direct EAB sales.
3. Peter Wiesner says these shorter tapes were also sponsored by the NNC. I am not certain why the NNC was not informed of this before. Mr. Wiesner says there are no plans to market these tapes.

MOTION

If EAB does not disclose the financial agreement with the Computer Society concerning the CS sale of fuzzy tapes by January 21, 1994,
OR the financial agreement results in a smaller NNC dollar royalty than that from direct EAB sale,
THEN the President of NNC is directed to file a grievance concerning this matter to an appropriate TAB entity.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. Marks', with a stylized flourish at the end.

Robert J. Marks

cc: M.A. El-Sharkawi
NNC Video Tutorials Chair

Peter Wiesner, IEEE EAB
445 Hoes Lane
P.O. Box 1331
Piscataway, NJ 08855-1331

True Seaborn
IEEE Computer Society



IEEE COMPUTER SOCIETY

Publications Office

10662 Los Vaqueros Circle
P.O. Box 3014
Los Alamitos, California 90720-1264
(714) 821-8380 • FAX 714-821-4010

December 10, 1993

Robert J. Marks II, Editor-in-Chief
IEEE Transactions on Neural Networks
University of Washington
Department of Electrical Engineering
c/o 1131 199th Street, S.W., Suite N
Lynnwood, Washington 98036-7138

Dear Bob:

This follows up on our phone conversation and subsequent email this week regarding the advertising copy describing the Neural Networks Council videotapes on fuzzy logic that appeared in the recently published 1994 Computer Society Press Catalog.

The omission of the NNC from the ad copy was our oversight, for which I apologize. We should have made the sponsorship of the tapes clear, and we will certainly do so in the future. As you requested, we will fax you a copy of the ad copy prior to printing the next couple of announcements, to ensure that the NNC is properly reflected. I appreciate your willingness to respond promptly, since many of these promotional pieces are time-sensitive.

We are purchasing the tapes at 50% discount off list price from EAB. I can't speak to the royalty arrangement between NNC and EAB. Peter Wiesner will need to address that directly with you.

I hope this will resolve any concerns NNC may have on the Computer Society Press role in the council's videotape sales. Please let me know if there are any further unresolved issues.

Sincerely,

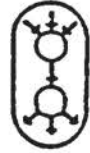
True Seaborn
Publisher

cc: Peter Wiesner





NEURAL NETWORKS COUNCIL



Robert J. Marks II
Past President

November 15, 1993

Peter Wiesner
IEEE Educational Activities Board
P. O. Box 1331
Piscataway, NJ 08855-1331

Peter,

I have been chartered by NNC President Eberhart to bring to you some concerns of the NNC about the fuzzy tape series. I ask that you respond in writing so that I can include it in my report to Ad Com.

The first item concerns advertisement of the fuzzy tapes by the IEEE Computer Society. Our questions are:

1. Who authorized the placement of these ads?
2. What is the financial agreement with the Computer Society in light of the agreement between the NNC and EAB?
3. What is the NNC income derived from the sale of the fuzzy tapes by the Computer Society?
4. Why is the NNC not acknowledged as the fuzzy tape sponsor in the Computer Society ads?

Secondly, please specify any other project, in or outside of IEEE, you have undertaken with the instructors on the fuzzy tapes.

I suspect you can easily address these questions. You can see, though, from our perspective, the reason for concern.

Peter Wiesner
Page Two
November 15, 1993

I look forward to your response. If it will take more than a month to reply, I would appreciate it if you would call me.

Sincerely,

Robert J. Marks II, Past President
IEEE Neural Networks Council

cc: Russ Eberhart, NNC President
✓Patrick K. Simpson, NNC President-Elect
Walter Karplus, NNC Vice President-Elect
Stamatios Kartalopoulos, NNC Publications Chair
James C. Bezdek, NNC Meetings Chair
Mohamed El-Sharkawi, NNC Video Tutorials Chair

THE THEORY AND APPLICATIONS OF FUZZY LOGIC

Sponsored by the IEEE Neural Networks Council

INTRODUCTION TO FUZZY SET THEORY AND FUZZY LOGIC: BASIC CONCEPTS AND STRUCTURES

Enrique Ruspini, Artificial Intelligence Center, SRI International

From this course you will learn:

- The basic concepts and structures of fuzzy logic for use in analysis, design, and development of complex control, signal processing and information systems.
- To understand the rational bases of fuzzy logic.
- About the relations between fuzzy logic and approximate reasoning methods.

Product #: HV0257-6, ISBN 0-7803-0332-6

FUZZY LOGIC: ADVANCED CONCEPTS AND STRUCTURES

Lotfi Zadeh, EE Department, UC/Berkeley

From this course you will learn:

- The basic concepts underlying fuzzy logic, with emphasis on linguistic variable, canonical form, fuzzy if-then rules, and interpolative reasoning.
- How to use the calculus of fuzzy if-then rules as a method of design of systems which do not lend themselves to precise analysis.
- About the applications of fuzzy logic systems analysis, control, consumer products, and industrial systems.

Product #: HV0258-4, ISBN 0-7803-0333-4

INFORMATION PROCESSING WITH FUZZY LOGIC

Piero Bonissone, General Electric Company R&D

From this course you will learn:

- The distinction between probabilistic (Bayesian and Dempster-Shafer) and possibilistic (fuzzy) reasoning systems.
- Critical issues in the development and deployment of approximate reasoning systems.
- The basis for compiling rule based systems and fuzzy logic controllers.

Product #: HV0259-2, ISBN 0-7803-0334-2

FUZZY LOGIC AND NEURAL NETWORKS FOR CONTROL SYSTEMS

Hamid R. Berenji, AI Research Branch, NASA Ames Research Center

From this course you will learn:

- Basic methods for design of fuzzy logic controllers.
- How neural networks can assist in the process of developing fuzzy logic controllers.
- To understand different successful applications of this methodology.

Product #: HV0260-0, ISBN 0-7803-0335-0

FUZZY LOGIC AND NEURAL NETWORKS FOR PATTERN RECOGNITION

James C. Bezdek, Division of Computer Science University of West Florida

From this course you will learn:

- Basic data structures for fuzzy pattern recognition.
- How fuzzy logic is used and impacts the solution of problems in numerical pattern recognition.
- How fuzziness can be incorporated into computational neural-like architectures used in pattern recognition.
- How computational neural networks can be used in fuzzy models for pattern recognition.

Product #: HV0261-8, ISBN 0-7803-0336-9

FUZZY LOGIC AND NEURAL NETWORKS FOR COMPUTER VISION

James Keller, Electrical and Computer Engineering University of Missouri

From this course you will learn:

- How many of the classical operations in computer vision can be naturally cast into the framework of fuzzy set theory.
- How resulting algorithms can enhance the overall quality of the results providing quantitative information.
- To understand the interplay between fuzzy set theory and neural networks as they apply to computer vision problems.

Product #: HV0262-6, ISBN 0-7803-0337-7

Order your videos individually for \$89.95 Member price, \$129.00 Non-member price, or SAVE over \$89.00 with our package price (get all 6 tapes for \$449.95 Member, \$649.95 Non-member—use product # HV0256-8). To order call 1-800-678-IEEE or fax 908-981-9667.

For more information about videos, contact Beth Babeu Murray at (908) 562-5499.

The Institute of Electrical and Electronics Engineers, Inc.



IEEE NNC Ad

VIDEOTAPES**RELENTLESS IMPROVEMENTS**

by Moshe Rubinstein

Contents: The Model of Early Involvement, Information and Its Value, Education as the Vehicle for Relentless Improvement, Environment for Innovation and Quality, Empowerment and Mutual Trust.

Running Time: 180 minutes. 1992.
 ISBN 0-8186-3073-6. Videotape # 3073-16C
 \$129.00 — Members \$99.00

REVERSE ENGINEERING

by Elliot J. Chikofsky

Presents an overview of the concepts and technology of reverse engineering for software systems. It emphasizes five topics: software archaeology, taxonomy, elements of reverse engineering, reverse engineering and CASE, and strategies and issues.

Running Time 180 minutes. 1991.
 ISBN 0-8186-2538-4. Videotape # 2538-16C
 \$129.00 — Members \$99.00

SOFTWARE REUSE: Past, Present, and Future

by Stephen R. Schach

Discusses reuse and development, reuse and maintenance, successful case studies, present object-oriented reuse libraries, and promising future reuse strategies.

Running Time 180 minutes. 1992.
 ISBN 0-8186-3078-7. Videotape # 3078-16C
 \$129.00 — Members \$99.00

THEORY AND APPLICATIONS OF FUZZY LOGIC
(6 Videotape Programs)

The following 6 videotapes on the theory and applications of fuzzy logic are available individually or as a set. The complete package includes the entire series of 6 videotapes at a reduced price. Save \$124.00 off list or \$90.00 off member prices on the complete set. Please be sure to specify NTSC (US-VHS) or PAL format when ordering.

Running Time: 12 hours. 1992.
 ISBN 0-7803-0331-8. Videotape Package # 5244-99C
 \$650.00 — Members \$450.00

INTRODUCTION TO FUZZY SET THEORY AND FUZZY LOGIC:

Basic Concepts and Structures
 by Enrique Ruspini

Discusses the nature and characteristics of applications, the analysis and development of complex control, signal processing, and information systems.

Running Time: 120 minutes. 1992.
 ISBN 0-7803-0332-6. Videotape # 5184-16C
 \$129.00 — Members \$90.00

FUZZY LOGIC: Advanced Concepts and Structures

by Lofti Zadeh

Introduces the basic ideas underlying fuzzy logic and illustrates their use through examples. The videotape also discusses how fuzzy logic serves to exploit the tolerance for imprecision.

Running Time: 120 minutes. 1992.
 ISBN 0-7803-0333-4. Videotape # 5194-16C
 \$129.00 — Members \$90.00

INFORMATION PROCESSING WITH FUZZY LOGIC

by Piero Bonissone

Teaches the distinction between probabilistic and possibilistic reasoning systems. Examines the critical issues in the development and deployment of approximate reasoning systems.

Running Time: 120 minutes. 1992.
 ISBN 0-7803-0334-2. Videotape # 5204-16C
 \$129.00 — Members \$90.00

FUZZY LOGIC AND NEURAL NETWORKS FOR CONTROL SYSTEMS

by Hamid R. Berenji

Discusses the recent techniques developed in fuzzy logic and artificial neural networks as applied to control of physical systems. Also presents successful applications for their methodology.

Running Time: 120 minutes. 1992.
 ISBN 0-7803-0335-0. Videotape # 5214-16C
 \$129.00 — Members \$90.00

FUZZY LOGIC AND NEURAL NETWORKS FOR PATTERN RECOGNITION

by James C. Bezdek

Defines and characterizes the numerical pattern recognition problems of feature analysis, clustering, and classifier design. Discusses basic data structures for fuzzy pattern recognition and how it is used to solve problems in pattern recognition.

Running Time: 120 minutes. 1992.
 ISBN 0-7803-0336-9. Videotape # 5224-16C
 \$129.00 — Members \$90.00

FUZZY LOGIC AND NEURAL NETWORKS FOR COMPUTER VISION

by James Keller

Discusses how many computer vision operations can be cast into the framework of fuzzy set theory, and how resulting algorithms can enhance the quality of the results, providing quantitative information about the certainty of final assignments.

Running Time: 97 minutes. 1992.
 ISBN 0-7803-0337-7. Videotape # 5234-16C
 \$129.00 — Members \$90.00

All Videotape Packages* Include One Set of Video Notes. Videotapes* Are Available Only in U.S. - VHS Format.
 Additional Video Notes Can Be Purchased Separately.

* The series on *The Theory and Applications of Fuzzy Logic* does not include video notes, and is available in both NTSC (U.S. - VHS) and PAL formats.

Computer Society Ad.



ORDER BY FAX (714) 821-4641 or E-MAIL: cs.books@computer.org

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Tab #10
NNC Item VI.E.1
January 1993

**PUBLICATIONS COMMITTEE MINUTES FROM
SEPTEMBER 18, 1993**

NNC PUBLICATIONS COMMITTEE MINUTES
SEPT 18, 1993
SEATTLE, WA

The NNC Publications Committee met on Saturday, Sept 18, 1993
from 8:30-9:30 at the Seattle Sheraton, RM 416.

Those in attendance were:

Stamatios V. Kartalopoulos, NNC Pub-Com Chairman
Robert Marks, II, Trans Neural Networks Editor-in-Chief
James Bezdek, Trans Fuzzy Systems Editor-in-Chief
Wes Snyder, Connections Newsletter Editor
Robert Newcomb, NNC AdCom Member
Don Brown, NNC AdCom Member

A preliminary agenda was presented and approved as reorganized:

ADGENDA PUB COMMITTEE

SEPTEMBER, 1993

1. Minutes from previous meeting ... All (4 mins)
 2. TFS Bezdek
 3. Book sponsoring involvement ... Kartalopoulos
 4. PUB Committee Organization Kartalopoulos
 - a. Book Review Sub-Committee
 - b. Book Promotion Sub-Committee
 5. Book status Kartalopoulos
 6. TNN Marks
 7. JACI Brown
 8. Newsletter..... Snyder
-
1. The minutes from the previous 3/27/93 meeting were approved as presented.
 2. Bezdek submitted Appendix B: Financial Input Data and Appendix C: Detailed Cost Data for the Transaction on Fuzzy Systems (TFS). These data were also submitted to AdCom (under Editor Reports, Transactions on Fuzzy Systems). Bezdek reported that IEEE wants to print an additional 5,000 TFS copies (total 9,000) but when IEEE was asked by Bezdek for the reason, no clear answer was given. Bezdek reported that no page increase is requested for TFS 1994.
 3. Kartalopoulos reported on the growing number of NNC sponsored books and hence of the increased amount of work needed by the Publications Committee:

BOOKS IN PROGRESS:

- * Gupta/Knopf: reprint book on Neuro-Vision; in production; out 1Q94.
IT NEEDS a. NNC reviewers, and b. NNC plan for promotion.
- * Haykin: on Neural Nets; in production.
IT NEEDS a. NNC reviewers, and b. NNC plan for promotion.
IEEE Press proposes a joint sponsorship with Computer Society press if
NNC not interested to fully participate.

- * Gupta/Rao: reprint book on Neuro-control; in production; out 1Q94.
IT NEEDS a. NNC reviewers, and b. NNC plan for promotion.
 - * Gupta/Sinha: book on "Intelligent Systems"; MS draft received.
IT NEEDS a. NNC reviewers, and b. NNC plan for promotion.
 - * Fogel: book on Evolutionary Programming; MS by December
 - * Langari/Yen/Zadeh: "Fuzzy Model Applications in Industry"; in preparation.
IT NEEDS a. NNC reviewers, and b. NNC plan for promotion.
 - * Ichiro Masaki: book on "Intelligent Vehicles"; proposal received
IT NEEDS a. NNC reviewers, and b. NNC plan for promotion.
 - * Caudell: late, book style changed, the plan is still "fuzzy"
4. Kartalopoulos reported on the Committee's issues and challenges to meet the demand of the increased Book activity, as follows:

ISSUES

- * Book sponsoring activity increases rapidly.
- * A technical book review requires a lot of time.
- * Hard to find book reviewers.
- * Interaction with IEEE Press expected to increase to "almost" a full time job.
- * Many phone calls and correspondence paid from personal funds.
- * Pub Committee's present structure cannot cope with load and/or expenses.

CHALLENGES

- * Interest in book publishing through IEEE Press and in NNC sponsorship increases.
- * Books sponsored by NNC is a good service to members.
- * More services to membership would result in Membership increase.
- * If more participation of NNC in book production, then better returns from IEEE Press.

PUB-COMMITTEE PROPOSAL TO NNC (AdCom):

To meet the increased activity in Book sponsorship and increase the returns from royalties, the Committee approved the motions (for recommendation to NNC):

MOTION (passed):

The Publication Committee requests budget from the NN Council, at \$1.2K for 1993 and \$3.0K for 1994. These monies will be used to cover secretarial and other incidental expenses necessary to enhance the book reviewing process, and to develop closer links with IEEE Press book promotion and coordination effort.

MOTION (passed):

The organization of the Committee into a Non-Periodicals Editorial Board

- * to maintain list of book reviewers
- * to coordinate book reviews and evaluate book proposals.

and the IEEE Press Liaison

- * to coordinate w/IEEE Press NNC book promotion in NNC Trans/Newsletters
- * to coordinate w/IEEE Press NNC book promotion in Conferences.

5. Kartalopoulos reported on the Book status as follows:

NNC BOOK SPONSORING ACTIVITY PUBLISHED BOOKS: (as of July 1993)

Lau: 619 copies sold for \$20,579 in 1993

Tab #10
NNC Item VI.E.1
January 1993

**PUBLICATIONS COMMITTEE MINUTES FROM
SEPTEMBER 18, 1993**

NNC PUBLICATIONS COMMITTEE MINUTES
SEPT 18, 1993
SEATTLE, WA

The NNC Publications Committee met on Saturday, Sept 18, 1993
from 8:30-9:30 at the Seattle Sheraton, RM 416.

Those in attendance were:

Stamatios V. Kartalopoulos, NNC Pub-Com Chairman
Robert Marks, II, Trans Neural Networks Editor-in-Chief
James Bezdek, Trans Fuzzy Systems Editor-in-Chief
Wes Snyder, Connections Newsletter Editor
Robert Newcomb, NNC AdCom Member
Don Brown, NNC AdCom Member

A preliminary agenda was presented and approved as reorganized:

ADGENDA PUB COMMITTEE

SEPTEMBER, 1993

1. Minutes from previous meeting ... All (4 mins)
2. TFS Bezdek
3. Book sponsoring involvement ... Kartalopoulos
4. PUB Committee Organization Kartalopoulos
 - a. Book Review Sub-Committee
 - b. Book Promotion Sub-Committee
5. Book status Kartalopoulos
6. TNN Marks
7. JACI Brown
8. Newsletter..... Snyder

1. The minutes from the previous 3/27/93 meeting were approved as presented.
2. Bezdek submitted Appendix B: Financial Input Data and Appendix C: Detailed Cost Data for the Transaction on Fuzzy Systems (TFS). These data were also submitted to AdCom (under Editor Reports, Transactions on Fuzzy Systems). Bezdek reported that IEEE wants to print an additional 5,000 TFS copies (total 9,000) but when IEEE was asked by Bezdek for the reason, no clear answer was given. Bezdek reported that no page increase is requested for TFS 1994.
3. Kartalopoulos reported on the growing number of NNC sponsored books and hence of the increased amount of work needed by the Publications Committee:

BOOKS IN PROGRESS:

- * Gupta/Knopf: reprint book on Neuro-Vision; in production; out 1Q94. IT NEEDS a. NNC reviewers, and b. NNC plan for promotion.
- * Haykin: on Neural Nets; in production. IT NEEDS a. NNC reviewers, and b. NNC plan for promotion. IEEE Press proposes a joint sponsorship with Computer Society press if NNC not interested to fully participate.

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- * Book sponsoring activity increases rapidly.
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- * Interaction with IEEE Press expected to increase to "almost" a full time job.
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MOTION (passed):

The organization of the Committee into a Non-Periodicals Editorial Board

- * to maintain list of book reviewers
- * to coordinate book reviews and evaluate book proposals.

and the IEEE Press Liaison

- * to coordinate w/IEEE Press NNC book promotion in NNC Trans/Newsletters
- * to coordinate w/IEEE Press NNC book promotion in Conferences.

5. Kartalopoulos reported on the Book status as follows:

NNC BOOK SPONSORING ACTIVITY PUBLISHED BOOKS: (as of July 1993)

Lau: 619 copies sold for \$20,579 in 1993

2256 sold for \$75,625 since publication
Total sponsor royalty to date: \$1012.50

Sanchez/Lau: 509 copies for \$22,951 in 1993
1804 copies for \$85,872 since publication
Total sponsor royalty \$1217.44 (NNC+CAS)

Bezdek/Pal: 655 copies for \$33,907 in 1993
2051 sold for \$109,453
Total sponsor royalty \$1783.59

Total NNC royalty: \$3404.59

6. A motion submitted by Robert Marks (see AdCom Book page 144) to increase the charge of paper excess pages for TNN by \$125/page was discussed. MOTION passed.

The followin MOTION was also passed:

"The Publications Committee recommends that the AdCom directs the TNN Editor to write a letter to the Chair of IEEE Pub Board with copy to IEEE President and President-Elect indicating that the review of Dr. Kosko's book (see pp 72-73 of AdCom book) will be published in the November 1993 TNN issue unless explicitly prohibited by the President of IEEE".

7. Don Brown made a presentation of the proposed "Journal on Applied Computational Intelligence". The Committee APPROVED the proposal.
8. Wes Snyder reported on the Newsletter "tutorial" nature aarticles. In addition, he raised the question on advertisement fees in the Newsletter.

MOTION (passed):

The IEEE general guidelines should be followed and 40% should be granted to IEEE Conferences NOT sponsored by NNC

MOTION (passed):

Advertisement rates should be increased by 5%.

Respectfully submitted

Stamatios V Kartalopoulos, Ph.D.
Publ Committee, Chair

Tab #10
NNC Item VI.E.2
January 1993

PUBLICATIONS COMMITTEE REPORT

From: svk@hotld.att.com
Date: Tue, 14 Dec 93 09:47 EST
To: psimpson@orincon.com
Subject: re: AdCom meeting-1/22/94

Pat,

You have asked for a number of items from me.
FYI, I'll address them one at a time & in the same order
(this will be part of my presentation at the AdCom):

1. PUBLICATIONS COMMITTEE BUDGET (proposed)-1994:

| | |
|--------------------------------------|----------|
| a. bubble jet printer | 350.00 |
| (1 year apportioned) | |
| printer cartridges | 50.00 |
| b. fax machine cost | 450.00 |
| (1 year apportioned) | |
| fax cartridges | 50.00 |
| c. Telephone charges (1 year) | 150.00 |
| d. Postage (1 year) | 100.00 |
| e. Attend IEEE Press mtngs (2)..... | 1,300.00 |
| f. Attend ExCom/AdCom mtngs (3)..... | 2,000.00 |
| g. Promotional Activities | 500.00 |
| h. Miscellaneous | 50.00 |
| | ===== |
| Total | 5,000.00 |

2. IEEE PUBLICATIONS BOARD MEETING - Phoenix 10/23/93

The meeting took place between 10/22-24/93
at the Embassy Suites Hotel, in Camelhead, Phoenix, AZ.
(By the way, for future meetings, it is a nice and very inexpensive Hotel)

The topics discussed were Book Product Definitions, Financials, & Marketing.
In addition, Book Sponsoring Issues, Attracting Quality Authors and Projects,
Liaison-Press issues, etc.

I made a proposal on the sponsoring Society/Council royalty fees. (If
there is time at the AdCom meeting, I can present a summary of it).

The highlights of the proposal are:

Background, an Example (NNC sponsored 3 successful books and the fee is
very little), what Societies/Councils can do to contribute more into the
success of a book. Proposal of a Royalty Plan, with rules and conditions,
up to 5%. This proposal also identifies the reviewer honorarium.

In general, the proposal was received positively, (at the exception of
R Hoyt-Liaison of the Magnetics Society!) who wanted more studies on the
financial picture of the proposal. A sub-committee was formed (I'm
included, too) to do so. However, IEEE Press has already started a new
sponsor's royalty plan, based on my proposal, with the new books Haykin,
Gupta/Sinha, etc (see item 4, Book Activity).

In sort, IEEE is willing to give more to sponsors, if they contribute
more in the development and promotion of the book.

3. PUB-COM MEETING MINUTES:

***** are sent separately *****

4. BOOK ACTIVITY:

A. PUBLISHED BOOKS PERFORMANCE:

1. Lau: total books sold: 2465 for \$82,480
(1993: 828 books for \$27,434)
2. Sanchez/Lau: total books sold: 1960 for \$92,880
(1993: 665 books for \$29,959)
3. Bezdek/Pal: total books sold: 2367 for \$124,923
(1993: 971 books for \$49,377)

B. BOOKS IN PROGRESS:

1. Haykin (original book on NN):
2nd MS in final form.
Under final review.
Royalty: (In negotiation) 5% from IEEE Press Sales and 2.5% from
Computer Society Press Sales.
IT NEEDS aggressive NNC participation (in promotion).
2. Gupta/Sinha (reprint book on Intel. systems):
Sponsors: NNC (primary), CAS (secondary)
MS under 2nd review
Royalty: (In negotiation) NNC 3.5%, CAS 1.5% (from IEEE Press Sales)
IT NEEDS aggressive NNC participation (in promotion).
3. Gupta/Knopf: reprint book on Neuro-Vision; in production; out 3/94.
Royalty: (In negotiation)
IT NEEDS aggressive NNC participation (in promotion) if more than 1%.
4. Gupta/Rao: reprint book on Neuro-control; in production; out 3/94.
IT NEEDS aggressive NNC participation (in promotion) if more than 1%.
5. Fogel: book on Evolutionary Programming; MS by December
In search of NNC reviewers and NNC plan for promotion if more than 1%.
6. Langari/Yen/Zadeh: "Industrial Applications of Fuzzy Control and
Intelligent Systems"
MS partially done.
In search of NNC reviewers and NNC plan for promotion if more than 1%.
7. Ichiro Masaki: book on "Intelligent Vehicles"; proposal received
Waiting for MS.
8. Caudell: status: inactive

5. FUTURE PLANS OF PUBLICATIONS COMMITTEE

The Pub-Com will expand into two areas: Sponsoring Books and Education.

Sponsoring Books:

This activity starts with identifying a potential author(s) and ends with the promotion of the printed book. Based on the number of "books in progress" and the level of activity of the Committee, the Pub-Com is expected to grow, as discussed and approved at last AdCom meeting; this will include a Non-periodicals Board and the IEEE Press Liaison. The activities of the Committee are expected to expand in all areas of "Computational Intelligence" including GA, VR, and IFE (Intel. Financial Eng.).

New authors will be sought for quality monographs and PhD thesis.

The Committee will also seek for International authors.

Potential "quick" books from Workshops on NN, FL, and GA will be explored.

Education:

A list of speakers will be compiled of scientists willing to give

talks in the area of "Computational Intelligence" (NN, FL, VR & GA) and in their geographic areas.

This educational program, is expected to have many short and long term benefits to the Council.

Liaisons with other IEEE regions will be developed; I already have initiated exploratory dialog with members of region 8. First indications have been very positive.

The latter activity has the potential of "quick" book contributions, joint workshops, and the formation of nucleus teams in CI within the various regions.

interested parties. Received encouragement from European sources to organize ANN glossary liasons quickly. See VR Report.

WNN93/FNN93 San Francisco, November, 1993

W. Karplus (M. L. Padgett at no cost to NNC)

Held ANN Standards Tutorial, NASA Ames Tour by FZ Working Group Chair H. Berenji. Held 3 days of Standards Meetings on ANN Glossary (Padgett), ANN Performance and Training (Green and de Angelis), ANN Interfaces (Deiss), FZ (Berenji). Held Open House, informal Luncheon Discussions, Panel Discussion, Luncheon Technical Briefing, tours of local laboratories at NASA Ames and Stanford. Awarded paper competition prizes to students from Stanford. Planned other activities also. See VR Report. Note: Co-sponsored by NASA.

NIPS 93, November, 1993

S. Deiss (No cost to IEEE-NNC)

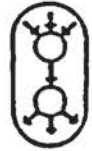
Attended NIPS and discussed IEEE-NNC ANN Interface Standards potentials. Plans for higher profile standards activities at NIPS 94 are underway, and supportive suggestions are requested.

OUTREACH ACTIVITIES: Responded in a positive manner to ALL invitations to come and talk or hold meetings provided the inviting group provided financing and room space. All outreach activities are held on a non-profit basis. Email and Connections articles provide valuable contacts. The next Connections issue will contain a survey form for responses. The outreach program is intended to meet the needs of the entire community and to solicit input from a diverse set of people. An international outreach is needed. The people at IJCNN Beijing, IJCNN Nagoya and all NNC meetings have expressed a need for continual effort to improve communications and credibility in all of Computational Intelligence by working TOGETHER on IEEE-NNC Standards. Communications with other professional societies have been friendly and productive, with no competitive efforts surfacing. We continue to strive to be ecumenical in the approach to standards designed to meet the needs and win the support of the entire interested international community.

IEEE-NNC Technical Cooperation has been continued for the WNN/FNN NASA co-sponsored non-profit meetings. These meetings began in Auburn in 1990. After 3 years, it was decided to move the meeting and accept all invitations to work with other groups. In particular, NASA/JSC was interested in hosting the meeting. The next 3 meetings were planned to be joint events with other conferences, with WNN/FNN being held to be non-profit and under 125 attendees, and cooperating with all interested societies. This covered WNN/FNN92 Houston, WNN/FNN93 San Francisco and will cover WNN/FNN94 San Diego in June, although the June meeting will be biological, and will not have standards discussions. This joint meeting approach was not acceptable, so the next 5 meetings have been planned to be independent of other meetings, and to be in cooperation with all interested societies and non-profit. The meetings will stay under about 125 people. They will be NASA co-sponsored and will be in Washington DC, Fall 1994, at NASA/JSC in the fall of 1995, and have been invited to be near LLNL, near NASA Lewis and near Orlando in 1995 and 1996. These meetings have approval by NASA for discussion of standards on ANNs, FZ, CP and Virtual Reality. Hopefully they will provide a strong basis for support for the IEEE Standards efforts in these areas.



NEURAL NETWORKS COUNCIL



Robert J. Marks II
Past President

PLEASE REPLY TO:
Interactive Systems Design Laboratory
Department of Electrical Engineering, FT-10
University of Washington
Seattle, WA 98198 USA
Tel: (206) 543-6990 (O)
Tel: (206) 776-8995 (H)
Fax: (206) 543-3842
e-mail: marks@milton.u.washington.edu

December 14, 1994

Patrick K. Simpson, President-Elect
IEEE Neural Networks Council
ORINCON Corporation
9363 Towne Centre Drive
San Diego, CA 92121

I request the following motion be placed on the agenda of the January 22, 1993 AdCom meeting.

BACKGROUND:

I was tasked by President Eberhart to explore the reason why the NNC fuzzy tapes were being advertised by the IEEE Computer Society without reference to the IEEE NNC's sponsorship. Peter Wiesner claims the fuzzy tape series, administered by Dr. El-Sharkawi, NNC Video Tutorial Chair, is the most successful EAB video project ever.

There were three items to be resolved.

1. Why was the NNC not cited in the IEEE Computer Society ads? How will such citation be made in the future?
2. What is the financial impact of the sales of fuzzy tapes by the IEEE NNC.
3. The fuzzy tutorial speakers were asked by Peter Wiesner to tape shorter one hour tapes. What was the intended use of these other tapes?

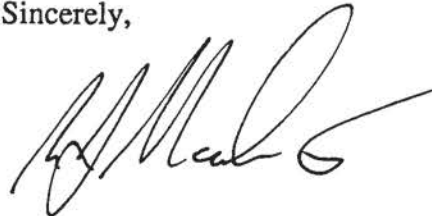
Here are my findings and recommendations.

1. The NNC not being cited was an oversight. The attached letter from the IEEE Computer Society clearly states as much. The NNC will be cited in the future. If the promises are kept, I propose that this matter be considered closed.
2. The financial aspect of the EAB contract with the IEEE Computer Society is not yet known. I have requested orally and via e-mail such an accounting. I propose the only acceptable financial arrangement results in the same royalty (in dollars, not per cent) from CS sales as from direct EAB sales.
3. Peter Wiesner says these shorter tapes were also sponsored by the NNC. I am not certain why the NNC was not informed of this before. Mr. Wiesner says there are no plans to market these tapes.

MOTION

If EAB does not disclose the financial agreement with the Computer Society concerning the CS sale of fuzzy tapes by January 21, 1994,
OR the financial agreement results in a smaller NNC dollar royalty than that from direct EAB sale,
THEN the President of NNC is directed to file a grievance concerning this matter to an appropriate TAB entity.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. Marks', with a long horizontal flourish extending to the right.

Robert J. Marks

cc: M.A. El-Sharkawi
NNC Video Tutorials Chair

Peter Wiesner, IEEE EAB
445 Hoes Lane
P.O. Box 1331
Piscataway, NJ 08855-1331

True Seaborn
IEEE Computer Society



IEEE COMPUTER SOCIETY

Publications Office

10662 Los Vaqueros Circle
P.O. Box 3014
Los Alamitos, California 90720-1264
(714) 821-8380 • FAX 714-821-4010

December 10, 1993

Robert J. Marks II, Editor-in-Chief
IEEE Transactions on Neural Networks
University of Washington
Department of Electrical Engineering
c/o 1131 199th Street, S.W., Suite N
Lynnwood, Washington 98036-7138

Dear Bob:

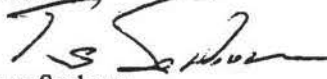
This follows up on our phone conversation and subsequent email this week regarding the advertising copy describing the Neural Networks Council videotapes on fuzzy logic that appeared in the recently published 1994 Computer Society Press Catalog.

The omission of the NNC from the ad copy was our oversight, for which I apologize. We should have made the sponsorship of the tapes clear, and we will certainly do so in the future. As you requested, we will fax you a copy of the ad copy prior to printing the next couple of announcements, to ensure that the NNC is properly reflected. I appreciate your willingness to respond promptly, since many of these promotional pieces are time-sensitive.

We are purchasing the tapes at 50% discount off list price from EAB. I can't speak to the royalty arrangement between NNC and EAB. Peter Wiesner will need to address that directly with you.

I hope this will resolve any concerns NNC may have on the Computer Society Press role in the council's videotape sales. Please let me know if there are any further unresolved issues.

Sincerely,

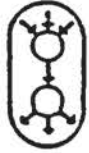

True Seaborn
Publisher

cc: Peter Wiesner





NEURAL NETWORKS COUNCIL



Robert J. Marks II
Past President

November 15, 1993

Peter Wiesner
IEEE Educational Activities Board
P. O. Box 1331
Piscataway, NJ 08855-1331

Peter,

I have been chartered by NNC President Eberhart to bring to you some concerns of the NNC about the fuzzy tape series. I ask that you respond in writing so that I can include it in my report to Ad Com.

The first item concerns advertisement of the fuzzy tapes by the IEEE Computer Society. Our questions are:

1. Who authorized the placement of these ads?
2. What is the financial agreement with the Computer Society in light of the agreement between the NNC and EAB?
3. What is the NNC income derived from the sale of the fuzzy tapes by the Computer Society?
4. Why is the NNC not acknowledged as the fuzzy tape sponsor in the Computer Society ads?

Secondly, please specify any other project, in or outside of IEEE, you have undertaken with the instructors on the fuzzy tapes.

I suspect you can easily address these questions. You can see, though, from our perspective, the reason for concern.

Peter Wiesner
Page Two
November 15, 1993

I look forward to your response. If it will take more than a month to reply, I would appreciate it if you would tell me.

Sincerely,

Robert J. Marks II, Past President
IEEE Neural Networks Council

cc: Russ Eberhart, NNC President
✓Patrick K. Simpson, NNC President-Elect
Walter Karplus, NNC Vice President-Elect
Stamatios Kartalopoulos, NNC Publications Chair
James C. Bezdek, NNC Meetings Chair
Mohamed El-Sharkawi, NNC Video Tutorials Chair



THE THEORY AND APPLICATIONS OF FUZZY LOGIC

Sponsored by the IEEE Neural Networks Council

INTRODUCTION TO FUZZY SET THEORY AND FUZZY LOGIC: BASIC CONCEPTS AND STRUCTURES

Enrique Ruspini, Artificial Intelligence Center, SRI International

From this course you will learn:

- The basic concepts and structures of fuzzy logic for use in analysis, design, and development of complex control, signal processing and information systems.
- To understand the rational bases of fuzzy logic.
- About the relations between fuzzy logic and approximate reasoning methods.

Product #: HV0257-6, ISBN 0-7803-0332-6

FUZZY LOGIC: ADVANCED CONCEPTS AND STRUCTURES

Lotfi Zadeh, EE Department, UC/Berkeley

From this course you will learn:

- The basic concepts underlying fuzzy logic, with emphasis on linguistic variable, canonical form, fuzzy if-then rules, and interpolative reasoning.
- How to use the calculus of fuzzy if-then rules as a method of design of systems which do not lend themselves to precise analysis.
- About the applications of fuzzy logic systems analysis, control, consumer products, and industrial systems.

Product #: HV0258-4, ISBN 0-7803-0333-4

INFORMATION PROCESSING WITH FUZZY LOGIC

Piero Bonissone, General Electric Company R&D

From this course you will learn:

- The distinction between probabilistic (Bayesian and Dempster-Shafer) and possibilistic (fuzzy) reasoning systems.
- Critical issues in the development and deployment of approximate reasoning systems.
- The basis for compiling rule based systems and fuzzy logic controllers.

Product #: HV0259-2, ISBN 0-7803-0334-2

FUZZY LOGIC AND NEURAL NETWORKS FOR CONTROL SYSTEMS

Hamid R. Berenji, AI Research Branch, NASA Ames Research Center

From this course you will learn:

- Basic methods for design of fuzzy logic controllers.
- How neural networks can assist in the process of developing fuzzy logic controllers.
- To understand different successful applications of this methodology.

Product #: HV0260-0, ISBN 0-7803-0335-0

FUZZY LOGIC AND NEURAL NETWORKS FOR PATTERN RECOGNITION

James C. Bezdek, Division of Computer Science University of West Florida

From this course you will learn:

- Basic data structures for fuzzy pattern recognition.
- How fuzzy logic is used and impacts the solution of problems in numerical pattern recognition.
- How fuzziness can be incorporated into computational neural-like architectures used in pattern recognition.
- How computational neural networks can be used in fuzzy models for pattern recognition.

Product #: HV0261-8, ISBN 0-7803-0336-9

FUZZY LOGIC AND NEURAL NETWORKS FOR COMPUTER VISION

James Keller, Electrical and Computer Engineering University of Missouri

From this course you will learn:

- How many of the classical operations in computer vision can be naturally cast into the framework of fuzzy set theory.
- How resulting algorithms can enhance the overall quality of the results providing quantitative information.
- To understand the interplay between fuzzy set theory and neural networks as they apply to computer vision problems.

Product #: HV0262-6, ISBN 0-7803-0337-7

Order your videos individually for \$89.95 Member price, \$129.00 Non-member price, or SAVE over \$89.00 with our package price (get all 6 tapes for \$449.95 Member, \$649.95 Non-member--use product # HV0256-8). To order call 1-800-678-IEEE or fax 908-981-9667.

For more information about videos, contact Beth Babeu Murray at (908) 562-5499.

The Institute of Electrical and Electronics Engineers, Inc.



IEEE NNC Ad

VIDEOTAPES**RELENTLESS IMPROVEMENTS**

by Moshe Rubinstein

Contents: The Model of Early Involvement, Information and Its Value, Education as the Vehicle for Relentless Improvement, Environment for Innovation and Quality, Empowerment and Mutual Trust.

Running Time: 180 minutes. 1992.
 ISBN 0-8186-3073-6. Videotape # 3073-16C
 \$129.00 — Members \$99.00

REVERSE ENGINEERING

by Elliot J. Chikofsky

Presents an overview of the concepts and technology of reverse engineering for software systems. It emphasizes five topics: software archaeology, taxonomy, elements of reverse engineering, reverse engineering and CASE, and strategies and issues.

Running Time 180 minutes. 1991.
 ISBN 0-8186-2538-4. Videotape # 2538-16C
 \$129.00 — Members \$99.00

SOFTWARE REUSE: Past, Present, and Future

by Stephen R. Schach

Discusses reuse and development, reuse and maintenance, successful case studies, present object-oriented reuse libraries, and promising future reuse strategies.

Running Time 180 minutes. 1992.
 ISBN 0-8186-3078-7. Videotape # 3078-16C
 \$129.00 — Members \$99.00

THEORY AND APPLICATIONS OF FUZZY LOGIC
(6 Videotape Programs)

The following 6 videotapes on the theory and applications of fuzzy logic are available individually or as a set. The complete package includes the entire series of 6 videotapes at a reduced price. Save \$124.00 off list or \$90.00 off member prices on the complete set.
Please be sure to specify NTSC (US-VHS) or PAL format when ordering.

Running Time: 12 hours. 1992.
 ISBN 0-7803-0331-8. Videotape Package # 5244-99C
 \$650.00 — Members \$450.00

INTRODUCTION TO FUZZY SET THEORY AND FUZZY LOGIC:**Basic Concepts and Structures**

by Enrique Ruspini

Discusses the nature and characteristics of applications, the analysis and development of complex control, signal processing, and information systems.

Running Time: 120 minutes. 1992.
 ISBN 0-7803-0332-6. Videotape # 5184-16C
 \$129.00 — Members \$90.00

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From: "Wunsch, Donald" <DWunsch@coe2.coe.ttu.edu>
To: Rick Alan <70324.1625@compuserve.com>, xm8 <xm8@sdcc12.UCSD.EDU>
Subject: Distinguished Lecture Series
Date: Thu, 16 Dec 93 17:31:00 PST

Pat,

Here is a brief synopsis of Distinguished Lecture Series.

Since it's inception, we have had a fairly steady interest in the Distinguished Lecture Series. Most of the interest has been in getting reimbursement for speakers to visit a regional interest group or local section. (Maximum reimbursement for one entity in any year is \$1000. Usually it is less than that.) At first, I relayed each request to the NNC president for approval. After our March 1993 meeting, I began approving requests myself. However, only one request was approved since I began this policy. At the inception of this program, we decided that any speaker on the list, or any current member of the NNC could be requested by either a regional interest group or a local section, and the local section would potentially be eligible for reimbursement. To date, there have been a small enough number of requests to basically "rubber-stamp" eligible requests (after some negotiating the amount down). Ineligible requests (for someone not on the list, or from an entity other than a regional interest group or IEEE local section) fall outside the scope of the series and must be approved or rejected by the president, or, at his option, the full council. (The full council rejected such a request last September.)

We also have a policy that the Past President of the NNC be added to the Distinguished Lecture Series list. Others on the list have been put there upon accepting my invitation, as program chair for the series. I issued one such invitation in 1993, to Hamid Berenji, who accepted. I will place him on the list after receiving his resume. Our list is still shorter than some other societies, but is large enough to offer an interesting variety of speakers, and is certainly not the shortest list. Therefore, there is plenty of room for my successor to make changes and additions.

I have been the program chair for the series ever since the NNC elected to participate. At the NNC President's request, I have agreed to continue to serve in that capacity. At some point, it would probably be appropriate to designate a successor. Interested volunteers should contact me or the NNC president.

That concludes my report. Now, a motion:

Whereas,

The NNC is carefully scrutinizing expenses in preparation for WCCI, The Distinguished Lecture Series has had a recent lull in requests, Requests for reimbursement of Distinguished Lecture Series speakers are supposed to be made before any scheduling takes place, Scheduling a lecture takes several months lead time:

I move that we fund no new Distinguished Lecture Series requests for lectures to be given before June 25, 1994. This moratorium on funded lectures will automatically expire at the next NNC meeting unless renewed. Any lectures after June 25, 1994 can be approved for partial reimbursement by the Distinguished Lecture Series program chair, subject to annual limitations on the entire program imposed at the discretion of the NNC president and treasurer.

(End of motion)

This motion will defer spending until we are certain to afford it, and will have minimal impact on the potential recipients since they can simply schedule their lectures later. Because it is a small item and I anticipate

no objections, I ask that this motion be placed on the consent agenda.

Thanks.

Don

Date: Thu, 16 Dec 93 23:52:06 MST
From: tpc@jemez.eece.unm.edu
To: xm8@sdcc12.ucsd.edu
Subject: Ad Com

Pat- Here are a list of VRTCom items for the AdCom meeting agenda.

1) Report on VRAIS 93.

The first IEEE Virtual Reality Annual International Symposium was held in Seattle Washington from September 18 through 22. This conference was sponsored by the Virtual Reality Technical Committee of the IEEE Neural Networks Council, in cooperation with the SPIE, the International Society for Optical Engineering, the IEEE Industrial Electronics Society, Lasers and Elector Optics Society, Robotics and Automation Society Information Theory Society, Oceanic Engineering Society, Signal Processing Society, and the IEEE Seattle Section.

The conference was a big success, with a total of 477 registered attendees representing over 18 countries, thanks to the efforts of Publicity Chair Rich Donnelly of the SPIE, Press Relations Chair Alden Jones of the University of Washington, and the rest of the Organizing Committee.

The two days of tutorials that preceded the technical conference were organized by Tutorials Chair Blake Hannaford of the University of Washington. Almost every class was packed to capacity and sold out to standing room only crowds. The general comment from tutorial-goers was "give me more"! This is a rapidly changing field that has yet to completely define itself. The tutorial sessions offered topics that ranged from introductory to advanced, covering subjects such as head-mounted displays, force reflecting feedback, animation, vision phenomena, acoustic displays, and applications.

The opening ceremony was held the evening of the second day of tutorials. It featured Tom Furness of the Human Interface Technology Laboratories at the University of Washington, a pioneer in this field and the general chair, speaking on the past and future of virtual reality. Also on the stage that night was the Organization Chair Bob Marks of the University of Washington, the Program Cochairs, Michitaka Hirose of the University of Tokyo and myself, Thomas Caudell of the University of New Mexico, and the General Chair of the next VRAIS conference, David Mizell of Boeing Computer Services. This conference will be held in North Carolina in March of 1995.

The technical sessions were held during the next three days of the conference. A 400 page proceedings, distributed at registration, contained seventy-two high quality technical papers from all over the world. These papers were selected through a review process involving the fifty members of the Program Committee. In addition, the conference soldout of the video proceeding, a collection of video shorts showing the state of research in virtual reality at several research institutions around the world.

Each day started out a plenary session, where experts in the field reported on the state-of-the-art in virtual reality technology. The plenary speakers included Scott Fisher of Telepresence Research, Myron Kruger of Artificial Reality Corp., Roy Latham of CGSD Corp, Warren Robinett of North Carolina, Creve Maples of Sandia National Laboratories, Michitaka Hirose of the University of Tokyo, Larry Stark of the University of California, Berkeley, and Jannick Rolland of the University of North Carolina. There talks were well received by the attendees, and were also well attended, considering the early hour at which they started.

Following each plenary session in the morning, the technical sessions broke up into two parallel tracks. Sessions covered topics such as body sensing, sensory transducers, sensory feedback, human factors, graphics, teleoperation, software systems, and even neural networks. Speakers were given generous half-hour time slots for their talks, which usually allowed time for questions and discussion. Speakers made frequent use of video tapes to illustrate their work.

The next two evenings were set aside for panels. David Mizell of Boeing Computer Society organized the Industry Panel, with representatives from Lockheed, Caterpillar, Ford, General Electric, and of course Boeing. The following night Y. T. Chien of the National Science Foundation organized the Government Panel, with representatives of Advanced Research Projects Agency, Dept. of Transportation/US Coast Guard, NASA Ames Research Center, and DoE Sandia National Laboratories. These panels help focus the attendees on the realities of applications of this technology, and provided a glimpse of where government funding might be going over the next few years.

A small vendors exhibit was available to attendees during the five days of the conference, organized by Exhibits Chair Chris Esposito of Boeing Computer Services. People had an opportunity of talk first hand with the makers of virtual reality equipment and software, and see some demonstrations of their latest systems.

The conference was managed by Steve Marlin and Nomi Feldman of Meeting Management in Irvine California, and by our Finance Chair Dmitry Kaplan of Siemens-Quantum Corp of Issaquah Washington. Their creativity resourcefulness made this a very smooth running conference, considering nearly twice as many people attended as was planned.

I would like to personally thank the 1993 IEEE-VRAIS Organizing and Program Committees, and all of the people who worked hard to make the venture a success. It is the goal of the Virtual Reality Technical Committee to make this conference THE conference in the field. I believe we have made a good start!

Respectfully submitted by:
Thomas P. Caudell
Chairman
NNC Virtual Reality Technical Committee
and
VRAIS '93 Program Cochair
Dept. of Electrical and Computer Engineering
University of New Mexico
Albuquerque, NM 87131

- 2) Report on Video Tutorials from VRAIS 93 (Weisner)
- 3) Information on Co-sponsorship of "Second Annual, International Conference Virtual Reality and Persons with Disabilities", Co-sponsored by:
IEEE (Institute for Electrical and Electronics Engineers) and
California State University, Northridge (CSUN), CENTER ON
DISABILITIES
- 4) Report on VRAIS 95.

Conference moved to 11-15 March 1995 to remove schedule clash with IEEE Computer Society's conference on Visualization, in Oct 1993. Also, VRAIS has been merged with the Computer Society's Frontiers in Virtual Reality Workshop. Location stays at the Sheraton near Rayleigh North

Carolina.

- 5) Discussion of recent TAB actions on NNC motion to move VR activities into independent VR Committee.

TAB did not support the NNC motion to form an independent TAB level Virtual Reality Committee. We propose to try again at a future time. In the mean time, the NNC will continue it's VR activities.

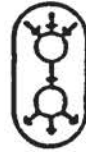
- 6) VR standards activities, past and future. (Eberhart)
- 7) Proposal for a Transactions on Virtual Reality, starting ASAP. (Caudell&Simpson)
- 8) Discussions with SPIE on collaboration. (Caudell)
- 9) Motion to revise FIELD OF INTEREST Statement

Since TAB has voted down the NNC motion to move VR activities out into an independent TAB level committee, the NNC should act to officially incorporate this technology into its the field of interest. We move the following revision:

Section 1. The field of interest of the Council and its activities and programs shall be the theory, design, application, development, and interface to biologically and linguistically motivated computational intelligence paradigms, including neural networks, connectionist systems, genetic algorithms, evolutionary programing, fuzzy systems, and hybrid intelligent systems, including virtual reality, in which these paradigms are contained. Changes to the field of interest may be made with the approval of the IEEE Technical Activities Board.



NEURAL NETWORKS COUNCIL



Robert J. Marks II
Past President

December 14, 1993

Patrick K. Simpson, President-Elect
IEEE Neural Networks Council
ORINCON Corporation
9363 Towne Centre Drive
San Diego, CA 92121

PLEASE REPLY TO:
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e-mail: marks@milton.u.washington.edu

I request the following motion be placed on the agenda of the January 22, 1994 AdCom meeting.

BACKGROUND

I was tasked by President Elect Simpson to summarize the state of activities in the area of Computational Intelligence in Financial Engineering and recommend the degree of involvement of the NNC in the field. I had significant input from Scott Matthews.

Those who read financial literature, view the neural network and finance internet postings or have attended recent neural network conferences know that interest in application of neural networks and computational intelligence is booming. Andrew Lo of the MIT Sloan School, whose use of neural networks in finance was reported in the Wall Street Journal, has recently founded a Department of Computational Finance. Most large brokerage houses have working neural network groups. John Deere, who makes more money on pension funds than from equipment sales, trades \$100 million of its \$1.2 billion pension funds using neural networks. Other examples are numerous. My experience is that a large percentage of the financial neural smiths have engineering backgrounds. Many are members of the IEEE. The primary technical activities in the area are sponsored by for-profit organizations that charge four figure registration fees. Although there is much activity and interest, however, it is too early to announce the activity as anything close to an established discipline.

Besides the sponsoring of the small CIFER conference, I propose the NNC form a technical committee on Computational Finance (TCCF). There are numerous IEEE members who would be eager to in the committee. The charters of the TCCF include

1. Recommendations concerning the '96 CIFER conference, including location and organizing committee. CIFER's should be held in large financial centers, such as London, Tokyo, Chicago, or L.A.
2. Video taping the CIFER '95 tutorials. This would be coordinated with the Video Tutorials Chair. Plenary presentations could also be considered.
3. Crafting a book of classic and influentially papers for IEEE Press. One such book has been done for another publisher, but the effort overall was poor.

MOTION:

The NNC AdCom directs the NNC President to establish a Technical Committee on Computational Finance and appoint the committee's chair.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Robert J. Marks'.

Robert J. Marks

9 December 1993

Mr. Patrick K. Simpson
IEEE NNC President
ORINCON Corporation
9363 Towne Centre Drive
San Diego, CA 92121

Dear Patrick:

In your letter dated November 29, 1993 on the subject of the January 22, 1994 Adcom meeting, you indicated that travel reimbursement of \$600.00 will be authorized for each Adcom member. However, according to the NNC Constitution, Article V, Section 11,


No officer of the Council, representative on Council Adcom, or Editor shall receive, directly or indirectly, any honorarium, travel expenses, compensation, or emolument from the Council as an officer or in any other capacity unless authorized by Council Adcom or by the Bylaws of the Council in a manner in conformity with IEEE policies and procedures.

Would you clarify the following three issues for my fellow Adcom member's benefit:

- (1) At last count there are about 40 voting and non-voting members on the NNC Adcom. With travel reimbursement of \$600 each, potentially that is a whopping \$24,000 cost for this meeting. What impact would that have on the NNC finances?
- (2) Since the Council Adcom consists of voting and non-voting members, Would you clarify who is eligible for this travel reimbursement?
- (3) As indicated above in the Constitution, I do not recall the Adcom authorizing this travel reimbursement, nor do I find it in the Bylaws. Can you remind me and the Adcom members on what authority you can authorize this travel reimbursement?

Thank you very much, and I look forward to seeing you in Dallas (actually Irving), TX.

Sincerely yours,



Clifford Lau

Cc: Professor Randall Geiger
Dr. Richard Saeks

MINUTES OF THE IEEE-NNC MEETING

June 18, 1989

Sheraton Washington Hotel, Washington, D.C.

R. J. Marks II presiding.

The meeting came to order. The following NNC members were present: F. Aldana, K. Bakhru, N. DeClaris, B. Dickinson, R. Eberhart, B. H. Juang, R. Marks, T. Nagle, E. Posner, H. Rauch, W. Snyder, E. Tzanakou; and five observers: M. Aronstein, M. Roth, P. K. Simpsun, R. D. Trueblood and A. Ephremides.

The agenda was discussed and approved. Minutes were approved as amended. One change was made, namely that R. Eberhart was an NNC member as of the Denver meeting.

A report on past accomplishments was given by R. Marks. These accomplishments included the agreement between the INNS and IEEE and the tentative approval of the IEEE Neural Networks transactions.

Troy Nagle reviewed the financial status of the 1988 conference. As of the end of April, the IEEE account had a \$25,500 balance with \$16,000 loan to this year's committee. Mr. Aronstein, Chairman of the San Diego Section, said that the books can be closed out soon.

The next item on the agenda was governance. T. Ephremides took nominations from the floor. R. Marks and F. Aldana were nominated for Chairman. They left the room so that elections could take place. R. Marks was elected Chairman. E. Tzanakou was nominated for Secretary. She was elected by acclamation. W. Snyder was nominated for Treasurer but declined. He then nominated R. Eberhart who was elected by acclamation.

The constitution of the Neural Networks IEEE Committee was then brought up for adoption as it appeared in the blue book (distributed). It was unanimously approved with minor corrections.

A proposed Constitution for the IEEE Council on Neural Networks was brought up for discussion. It was noted that this constitution would have to be presented to the technical activities board (TAB) and be approved by the NNC. Becoming a Council is the next step up the IEEE ladder. Because the NNC will be publishing a Transactions as well as running the IJNNC, it is appropriate that it becomes a council, a more formal organization. Proper campaigning with the TAB members was recommended.

A motion by H. Rauch (seconded by R. Eberhart) followed to proceed with the council status. All were in favor but one. T. Ephremides, H. Rauch and W. Snyder were then appointed as a subcommittee to "fine tune" the IEEE council proposal. The field of interest was discussed at length. The above mentioned three member subcommittee will craft the version to be presented to the TAB. The same subcommittee will be reviewed by T. Nagle, then a mail vote will be taken by mid October. The motion was passed.

Herb Rauch then took the floor to discuss the upcoming Transactions. He passed out a description of the publication, a copy of which is attached as Appendix A. In addition to the twelve Associate Editors already suggested, two more Associate Editors, Scott Kirkpatrick and Erkka Oja were suggested.

Sections on papers, short papers and letters will be established. Papers and short papers will be reviewed identically, letters will undergo a different review process that facilitates quick publication. The scope of the Transactions was discussed, and several changes were suggested. The document will be mailed to the Editorial Board for suggestions and approval. A motion for the approval of the Associate Editors was made, seconded and approved.

The conference status was then brought up by Bob Marks. W. Snyder discussed the status of the IJCNN '89 conference. He said it is a "success" with three cost centers (exhibits, tutorials, and registration) all in the black.

A discussion followed that if needed, Bob Marks will write to Society presidents, on behalf of any individual member, requesting that the Society help cover expenses to the NNC meetings. It was moved (E. Aldana) that the Chairman of the NNC at his or her discretion, be able to help pay travel expenses of those who could not otherwise attend the meeting. The request for travel expenses must be made and approved in advance of the meeting. The motion was unanimously approved. At this point, another motion was made for the requirement of "in advance" of the previous motion, being removed for this year's meeting. The motion was unanimously approved.

A report of the Oversight Committee followed. Nick DeClaris reported on the 1990 and 1991 organizations and plans. He mentioned that tab #8 from the circular is withdrawn from consideration since a number of problems exist. Discussion took place as to who chooses the place of a conference and whether the Oversight Committee should have the power to make that decision and that decision being discussed by the NNC. The issues of how much ahead of time decisions should be made about locale and people running the conference were discussed. During the discussion about the '91 Conference a motion was made by R. Eberhart. The motion is that... "the oversight committee following this conference cannot hold or assume major leadership roles in the conferences while they are on the Oversight

Committee". After a long discussion -- sometimes very confusing-- the motion was passed (6 for it, 5 against it). The 1991 conference will take place in Seattle, (IEEE sponsored). A motion was placed by F. Aldana that "the five members of the Oversight Committee who belong to the IEEE-NNC should act as the meetings committee of the NNC." The motion passed unanimously.

T. Ephremides brought up the Region 10 meetings outside the U.S. and that TAB will match the amount that the societies will contribute for one or two representatives to these meetings. The current plan is one in India, one in Singapore and a couple in Australia. If we choose to participate in this series of colloquia we should designate one or two people to participate. R. Eberhart moved that up to \$5,000 be allocated as matching funds for this traveling to the IEEE Symposia in Asia. Motion was carried unanimously.

It was decided that the next meeting will be on Sunday, November 26, 1989 at 1:30 p.m. at the NIPS Meeting.

M. Aronstein brought up the issue of percentage interest for the San Diego section in the IJCNN '90 meeting. The issue was tabled.

The meeting was then adjourned.

21 December 1993

Mr. Patrick Simpson
ORINCON Corporation
9363 Towne Centre Drive
San Diego, CA 92121

OE
IA
CS
SIT

Old NN Committee

Dear Patrick:

Thank you for your letter dated 16 December 1993 clarifying the issue of travel reimbursement to attend NNC Adcom meetings. It appears, however, that we have a difference of opinions in the interpretation of the NNC Constitution. Under Article V, Section 11,

No officer ... shall receive ... travel expenses... unless authorized by Council Adcom or by the Bylaws....

I believe the Adcom did not authorize such expenditure for the following reason. The votes in the June and November 1989 meetings were only tentative because in both meetings insufficient number of Adcom members attended to form a quorum. According to Article VII, Section 3 of the Constitution, one third of the voting members must be present to constitute a quorum. In the June 1989 it was not clear what Society N. DeClaris and H. Juang were representing. In the November 1989 meeting, there were only eight present at the meeting, and even then it was not clear what Society J. Goodman and A. Epremidis were representing. So in any case, ten Adcom members had to be present to form a quorum. According to Article VII, Section 6 of the Constitution, when there was not a quorum, tentative action could be taken and became effective only upon subsequent ratification by the Adcom by subsequent meeting or by mail. Since neither of the latter actions (by mail or by subsequent duly constituted quorum) was taken, the votes at the two previously mentioned Adcom meetings were not valid until ratified by the Adcom.

Secondly, the motions made on the floor of a regular meeting do not constitute amendments to the Constitution. According to Article XI, Sections 1 and 2 of the Constitution, proposed amendments must be mailed to Adcom members at least 25 days before the meeting. Therefore, the motions made on the floor at the June and November 1989 meetings were not valid amendments to the Constitution and Bylaws. Furthermore, amendments must be passed by two-thirds affirmative votes by members of the Adcom, according to Article XI, Section 1b.

Concerning Article V, Section 10, "...officers of the Council shall have the sole authority to obligate the funds...", my interpretation is that the President has the authority to obligate funds that have been approved by the Adcom, and not just at will. In the present case, since there is \$15K allocated to the Adcom committee, you are totally within your rights to spend that money as you see fit for travel reimbursement. But I believe that anything beyond that amount would have to be authorized by the Adcom.

See you in Irving, TX and have a Happy Holiday Season!

Clifford Lau
Clifford Lau

Cc: Randy Geiger
Richard Saeks

As a Council, we now have new committees such as a Standings Committee, a Meetings Committee, Publications and Nominations Committee and a Constitution and Bylaws Committee. The latter is Chaired by the Secretary of the CNN.

In the Treasurer's report, R. Eberhart reported on the status of the books of the two previous conferences in June 1988 in San Diego (ICNN '88) and June 1989 in Washington, D.C. (IJCNN '89). The total surplus in 1988 was over \$78,000 and the IEEE NNC receives half of that. The other half goes to the IEEE San Diego Section. The estimated total surplus for the 1989 IJCNN is estimated at \$170,000 and the IEEE NNC receives half of that. The other half goes to the International Neural Networks Society (INNS). (Attachment 2).

In the secretary's report, E. Tzanakou requested that all motions be submitted in writing prior to voting and that they also be read over prior to voting.

H. Rauch gave an update on the status of the IEEE Transactions on Neural Networks. The material for the first issue is ready and the mailing is expected around March 1, 1990. As of November 1, 1989 there have been 35 papers submitted of which ten were accepted for the first issue, eight were rejected and seventeen papers are still under review. In addition there were seven "Letters" submitted, three of which are informational and were solicited and have been accepted. Of the four technical letters, one has been accepted, one rejected and two are still under review. H. Rauch said that he would like to make the Transactions six issues per year by 1991. The estimated subscription was 4,000 members plus 1,000 for libraries. The number at the time of the report is about 2,000.

The IJCNN Oversight Committee (IOC) report was given by R. Newcomb. The results of the November 25, 1989 meeting were summarized as follows: (1) A new agreement between CNN and INNS was drafted that generally subsumes the previous one but spells out some specifics on operations and clarifies the IOC code as a monitor. An IOC Constitution and Bylaws will also be adopted, (2) A proposed schedule for meetings in the years to come was submitted that has one main meeting in North America and one other outside North America alternating between Europe and Pacific. (Attachment #3) R. Newcomb also discussed setting of guidelines for tutorial speakers. He announced that the next IOC meeting will take place in Washington D.C. at the IJCNN at 9:30 am Monday, January 15, 1990.

The next report was given by W. Karplus who discussed budget issues for the San Diego 1990 IJCNN Conference. The subject of reimbursing the organizing committee members for travel was discussed as well as the fee and travel expenses for the keynote speaker. A motion was made that "the Neural Networks Committee not approve the proposed contract with J. Burke, unless the total amount is reduced to \$5,000 including all expenses". The motion was seconded, discussed, voted upon and passed. A second motion by Russ Eberhart "that all reimbursements for travel for session organizers for the 1990 IJCNN in San Diego be on the basis of need, under the item by item control of the General Chairman", passed as well.

A. Ephremides said that he intends to push ahead in the coming year for the Volunteer restructuring proposal.

Next, the motion on secretarial support by R. Marks was discussed and passed as amended. "Up to \$7500 is allotted for secretarial support at the discretion of the Chair. The amount can be applied retroactively". Also, the motion "the NNC/CNN approve not more than \$600 in funds for the registering of the logo in the upper right hand corner of the stationary, the conference title International Conference on Neural Networks as well as the initials ICNN" passed.

The Neural Networks "Glossary" was discussed next. R. Eberhart suggested that we should have a terminology committee for some standards in nomenclature. H. Rauch suggested opening a dialogue through the Transactions. So, an ad hoc committee on standards was formed consisting of R. Eberhart, W. Snyder and E. Tsanakou (Chair) with a deadline of February 1, 1990. R. Eberhart will write a letter with some commonly used terms and invite others to offer definitions and/or other terms for discussion.

The awards committee was discussed then and the idea of the best paper of the year was adopted.

The formation of a CNN fellows committee was discussed and possible members were suggested such as E. Posner (Chair), B. Newcomb and B. Widrow.

At this point elections for the Council members for the year 1990 took place by secret ballot. The nominations were made from the floor and the results of the elections are as follows:

Robert Marks II, President
Russ Eberhart, Vice President
Evangelia Tsanakou, Secretary

R. Eberhart will also serve as Treasurer, until one gets elected.

After a short recess for dinner the meeting was resumed at 6:30 pm.

The Newsletter was discussed at length. R. Eberhart suggested that a formal proposal be submitted in the next meeting. H. Rauch made the point that since there is no formal subscription for the Transactions, the Newsletter is not necessary. R. Newcomb thinks that a newsletter will be very helpful, but we need someone to champion it before we push on it.

H. Rauch then discussed the publicity of the Transactions. R. Eberhart made the motion "to approve up to \$2,000 for Transactions publicity at the discretion of the Editor". This motion carried. M. Roth was approved as an Associate Editor of the Transactions.

H. Rauch also moved "to approve the purchase of 1,000 extra copies of the first issue of the IEEE Transactions on Neural Networks, not to exceed \$2,500 total" for distribution in the January meeting. The motion passed.

Two motions by W. Snyder were tabled until January. The motions read as follows: (1) I move that the CNN go on record as never approving any budget for IJCNN's after 1990 which contain reimbursements for Session Chair travel, and (2) I move that the CNN go on record as encouraging future IJCNN budgets to contain a \$20,000 discretionary fund for the general chair.

R. Marks will write letters to the newly accepted Societies about their admission to the Council.

R. Newcomb moved that "the proposed IJCNN meeting schedule be approved, as far as times and locations, as a working schedule through 1992 and conceptually approved overall". The motion passed.

R. Eberhart moved that "the President of the CNN, at his or her discretion, be able to help pay travel expenses to those who could not otherwise attend the ADCOM meeting. The request for travel expenses must be made in writing prior to the meeting". The motion passed.

A similar motion by R. Marks on TAB meetings also carried.

The letter by T. Nagel dated September 18, 1989 points out that no agreement was ever signed between the IEEE Neural Networks Committee and the San Diego Section and that the only official action between the two parties was the approval of the ICNN 88 Conference budget. (Attachment 4).

The meeting adjourned at 7:35 pm.

Tab #16
NNC Item X.A
January 1993

PROPOSAL TO BECOME NEURAL NETWORKS SOCIETY

From: "Wunsch, Donald" <DWunsch@coe2.coe.ttu.edu>
Date: Wed, 15 Dec 93 18:35:00 PST

Pat,

Please include the following in the agenda for the January meeting.

Don

WHEREAS:

1. The NNC is already doing everything a society does.
2. The fields covered by the NNC charter are growing exponentially.
3. The number of papers published in these fields are more than those in other societies.
4. The addition of society member income would enhance the financial health of IEEE neural network activities.
5. Society membership would enhance Neural Network volunteer activity.
6. The IEEE's neural network activities started with the Neural Network Committee, and progressed to the Neural Network Council. The next logical step is to become the Neural Network Society, and this step is in fact long overdue.

MOTION:

The AdCom hereby endorses the goal of becoming the IEEE Neural Network Society to replace the IEEE Neural Network Council. The President is directed to take all necessary steps to achieve this change.

Date: 19 Dec 93 19:47:16 EST
From: "Colin T. Wiel" <72064.1136@CompuServe.COM>
To: rick <70324.1625@CompuServe.COM>
Cc: marks <marks@u.washington.edu>
Subject: Upcomming Society Vote.

Rick,

How are things going? I have not heard from you in quite a while.

Bob Marks told me recently that on January 22nd, the NNC will vote on whether to become a society rather than a council. Is this true? If so, I would like to send an email to all council members, on behalf of the RIG chairmen, stating that from the RIG perspective, society status is preferable to council status. The email would further state that the reason for this is that most local sections of IEEE are not familiar with the administrative body of council and the corresponding regional interest group, while they are of course familiar with the society and corresponding chapter. Local sections are good sources of funds (we get \$500/year from ours), but are sometimes hesitant to treat a RIG as they treat their chapters.

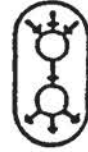
Of course I would pose this to all of the RIG chairmen and ascertain that it is indeed the consensus before submitting it to the NNC councilmembers. How does this sound? Also, do you have any updated info on names and email addresses of new or existing RIG chairmen? My info is pretty old.

Since the vote is January 22, speed is of the essence. Please respond ASAP. Thanks, and happy holidays!

- Colin

Tab #16
NNC Item X.B
January 1993

USAB COMMITTEE APPOINTMENT



NEURAL NETWORKS COUNCIL

Robert J. Marks II
Past President

PLEASE REPLY TO:
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December 14, 1993

Patrick K. Simpson, President-Elect
IEEE Neural Networks Council
ORINCON Corporation
9363 Towne Centre Drive
San Diego, CA 92121

I request the following motion be placed on the agenda of the January 22, 1994 AdCom meeting.

BACKGROUND:

The IEEE United States Activity Board (USAB) is the only national arm of IEEE. Its charter is promotion of the welfare of United States members of IEEE. A portion of each US IEEE member's dues goes to support USAB. One of their more successful programs is Congressional Fellowships wherein IEEE members work in Washington D.C. with their Senator or Congressman on engineering matters. The attached summary of activities, lifted from a recent newsletter of the IEEE Oceanic Engineering Society, gives examples of other activities.

IEEE has been criticized a few years back for testimony considered negative to neural networks. A proper counter to this is representation of the IEEE NNC in USAB.

Andras J. Pellionisz has been in recent dialog with USAB concerning coordinated federal funding of neural network research. A summary of the *US-Civilian Neurocomputing Initiative* is attached as is a letter I asked Dr. Pellionisz to write. Deborah Rudolph of USAB was quite receptive of the proposal and has encouraged the NNC to appoint a representative to USAB.

MOTION:

The NNC AdCom directs the NNC President to appoint a representative of the NNC to USAB.

Sincerely,

A handwritten signature in black ink, appearing to read 'Robert J. Marks', written in a cursive style.

Robert J. Marks

DEC-13-93 MON 13:25 Dr s Pellionisz & Rudolph

IEEE Neural Net Council
c/o Robert Marks, by fax 206 776 9297

December 13, 1993

Dear Sirs:

This letter is to suggest, that undersigned Prof. Andras J. Pellionisz, IEEE member, should serve as an appointed representative of IEEE NNC to USAB Technology Policy Council, to promote, with the help of USAB, the idea of a "USA Civilian Neurocomputing Initiative" (see white-paper enclosed).

This concept of a USA-CNI has at this point sufficient support from NASA (especially Ames Res. Ctr.) that Silicon Valley Neurocomputing Institute (director A. Pellionisz) is sponsored for this purpose. However, such an interagency effort calls for additional support, e.g. most suitably from professional societies with a USA mandate (IEEE/USAB).

At the recent "Technology Summit" in Silicon Valley, Ms. Deborah Rudolph, the Manager of Technology Policy Council of IEEE/USAB, personally reviewed with A. Pellionisz, over several hours, the USA-CNI concept and plan. She specifically recommended that IEEE Neural Networks Council send a letter to her, "appointing A.P. as an IEEE technical representative who could work with her on this issue. She would gladly accept such a representative as a much needed help, since she finds the issue most suitable to USAB, but herself has no knowledge and/or background about neurocomputing". A. Pellionisz from Silicon Valley Neurocomputing Institute and D. Rudolph from IEEE-USAB Technology Policy Council are most willing to work together on the issue of a "USA Civilian Neurocomputing Initiative".

The appointment-letter by IEEE/NN can be sent for automatic acceptance to:
Ms. Deborah Rudolph, Manager,
IEEE/USAB Technology Policy Council
1828 L. Street, N.W. Suite 1202
Washington, DC 20036-5104

Sincerely: *A. Pellionisz*

Prof. Andras J. Pellionisz, Director
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US-Civilian Neurocomputing Initiative

Concept & Recommendations; "White Paper by Pellionisz", 1993

(1) **DISADVANTAGES OF STATUS QUO.** Advanced R&D, such as Neurocomputing, to be competitive in the Post-Cold War-World, requires government programs for speed and efficacy. In Japan, an entirely civilian government-effort, the "Real World" initiative, organized by MITI, involving about a billion dollars over ten years, guarantees coherence and effectiveness of neurocomputer R&D. In Germany, the Ministry for Research and Development runs a similar civilian neurocomputing program, with expenditures comparable to that in Japan. In the USA, in contrast, neurocomputing R&D was organized in the final period of the Cold War, around Defense, by the agency of DARPA. *In the civilian government domain, there is still no interagency program for neurocomputing in the USA.* Programs by NSF, NIH, NIMH etc. though exist, are scattered, small and unconnected (altogether less than \$10 mil/yr), and some are entirely neurobiology-oriented (NIH, NIMH) while others (NSF) are engineering-oriented, with no coordination or overlap among them, and none of those Agencies runs facilities for conducting actual neurocomputing R&D. Also unlike in competitor countries, private industry in the USA forms no consortium for neurocomputing (nothing to be compared to MITI's coherent effort).

(2) **IMMINENT POSSIBILITY FOR A BREAKTHROUGH.** With a key R&D agency, NASA, presently setting up its "Neurocomputer Initiative", with a lead-role in it by the NASA Ames Research Center in Silicon Valley, there is a possibility to remedy several of the above handicaps. The goal is that in addition to the original DARPA defense-leg for neurocomputing, three Agencies in one Congressional Appropriation Committee; NASA-NSF-VA, request dedicated neurocomputer R&D funds in the \$100 million/yr range as a "Civilian Neurocomputer Initiative" (involving NIH/NIMH as well). NASA could naturally play a central role in such an Initiative, since it is set up for competitive-cooperative international R&D purposes, it runs major facilities suitable for vital (e.g. aerospace) applications and NASA (especially at the Ames Ctr) can also combine life science- and high tech electronics-R&D.

(3) **STRUCTURES PROMOTING INTEGRATION.** With NASA developing its Neurocomputing Program not separately from other Agencies, but based on the concept of an Interagency Civilian Initiative, a Civilian component can be added to the presently largely Defense-based neurocomputing establishment. Moreover, NASA can also greatly facilitate the emergence of a third (still missing) leg; since NASA for some purposes it already functions as an Industrial Consortium. Developing such an interagency effort, however, also requires "umbrella organizations". NASA Ames already set up "Silicon Valley Neurocomputing Institute". With this proposal and request, IEEE/USAB could join other organizations such as AIAA, NRC, and INNS, which are emerging as additional structures promoting integration.

IEEE USA HOT LINES

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James A. Watson, Editor—Georgia C. Stelluto, Associate Editor

CCIP Forum Explores Development of National Information Infrastructure

Approximately 200 representatives of industry, government, academia, and associations gathered in Arlington, Virginia, for a forum hosted by IEEE-USA's Communications and Information Policy Committee (CCIP). With the theme, "*Telecommunications as Part of the National Information Infrastructure*," attendees explored the development of a national information system.

Keynote speaker Arno Penzias, vice president of research at AT&T Bell Laboratories, highlighted the need for interoperability as a primary design criterion for the information infrastructure. He urged policymakers and designers to keep infrastructure applications clearly in mind.

Other speakers included Representative Edward Markey (D-Massachusetts), House Telecommunications Subcommittee chairman, and CCIP Chairman Will Stackhouse. Markey told forum attendees that digital communications services must be universal and affordable. He specified the integrated services digital networks as an interim step in developing an infrastructure.

Stackhouse asked participants to strike a balance between consensus and creativity in developing a blueprint for a 21st century national telecommunications system. He emphasized the conference goal of including broadcast, computer, and other industries in investigating technology trends, perspectives of telecommunications providers and users, and infrastructure projects and policy.

A summary report of the proceedings, including presentations of more than 30 other speakers in six panel sessions, will be available soon from the IEEE-USA Office in Washington, D.C.

IEEE-USA Releases New Federal Legislative Agenda

IEEE-USA's new Federal Legislative Agenda was presented to Members of the 103rd U.S. Congress in May, as they began to address the new technology and competitiveness proposals of the Clinton Administration.

The most recent in the biennial series, the Agenda highlights positions taken by IEEE-USA on public policy issues of concern to IEEE's U.S. members. The topics covered are industrial competitiveness, retirement income policy, defense conversion, career issues, intellectual property, research and development, civilian space program, computers and communications, energy, and engineering in health care. Serving as an executive summary and ready reference for Members of Congress and their staffs, the Agenda also provides a comprehensive list of IEEE-USA positions for the information of IEEE members and outside organizations.

Copies of the Agenda and related position statements are available free of charge on request to the IEEE-USA Office in Washington, D.C.

Manpower Committee Continues To Challenge the U.S. Department of Labor's LMI Project

On behalf of IEEE's U.S. members, USAB Chairman Charles K. Alexander wrote to Members of the House and Senate Judiciary Committees, on July 1. Alexander's letter supported Labor Secretary Robert Reich's request to the House and Senate Judiciary Committees that a statutory requirement for a Labor Market Information (LMI) Pilot Program be removed from the **Immigration Act of 1990**.

"It should be clear from the adverse comments received by the Labor Department that the LMI Pilot Program ought to be terminated," Alexander said. The proposed program could seriously damage the careers of U.S. scientific and engineering professionals by allowing foreign nationals in certain occupations to receive expedited permanent resident status in the United States.

IEEE-USA also urged the Department of Labor to delay further implementation of related rulemaking until Congress can thoroughly review the matter at hearings and develop appropriate legislative recommendations.

The Manpower Committee sent a Legislative Alert to volunteers and contacts in other concerned organizations with an update on recent developments, asking them to communicate their support for Congressional action to terminate the LMI Pilot Program by writing to one or more members of the Judiciary Subcommittees that handle immigration issues. Changed economic circumstances, including increased unemployment in scientific and engineering fields is the primary justification for recommending that the program be repealed or amended.

USAB Chairman Supports Budget Deficit Reduction

In a letter sent to all Members of Congress, IEEE's United States Activities Board Chairman Charles K. Alexander noted IEEE-USA's strong support of President Clinton's efforts to reduce the Federal budget deficit. In addition, the letter endorsed related efforts to encourage economic growth and productive investment, create jobs, and promote U.S. economic and technological competitiveness.

According to Alexander's letter, President Clinton's budget initiatives, as contained in the **Omnibus Budget Reconciliation Act of 1993**, H.R. 2141, includes many provisions of particular importance to IEEE's U.S. members. H.R. 2141 would authorize a permanent extension of the \$5,250 tax exclusion for employer-provided educational assistance and a permanent extension of the research and experimentation tax credit.

IEEE-USA also supports the package's targeted capital gains incentives for investment in small businesses and a major revenue raising provision that would permit the Federal Communications Commission to use auctions to assign portions of the public radio spectrum to commercial users.

IEEE USA HOT LINES

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IEEE-USA telephone hotline recording: (202) 785-2180
James A. Watson, Editor—Georgia C. Stelluto, Associate Editor

IEEE-USA Challenges Department of Labor Findings

The U.S. Department of Labor (DOL) has announced plans to amend its rules governing the permanent admission of foreign nationals to work in the United States. The Secretary of Labor would be able to determine whether the current alien labor certification process can be streamlined to expedite the admission of foreign-nationals by utilizing lists of occupations having shortages or surpluses, if the rule change were implemented.

DOL's proposed rule change is based on a finding that labor shortages in certain occupations, mostly at the Ph.D. and Masters levels, are occurring in several states. The occupations deemed to be in short supply include computer software engineers and computer systems analysts, in addition to materials, chemical and mechanical engineers.

IEEE Vice President for Professional Activities Charles K. Alexander communicated IEEE-USA's very serious concerns about the Labor Market Pilot Program, which would be implemented under the rule change, to DOL on April 28. IEEE-USA challenged DOL's decision not to consult with experts or organizations representing the affected occupations before publishing the proposed rule change and list of shortages.

Further, IEEE-USA also strongly objected to DOL's decision to proceed with the program at a time when unemployment among engineers is increasing sharply. Contact the IEEE-USA Office in Washington, D.C., for further information on DOL's proposed regulations and IEEE-USA's comments.

Committee Chairman Testifies on Energy Funding

IEEE-USA Energy Policy Committee Chairman James F. Fancher testified on March 24 before the House Subcommittee on Energy and Water Development. He outlined Federal funding priorities for energy research in fusion, nuclear, electric, and renewable energy.

Dr. Fancher said that IEEE-USA supports research that addresses both the reliability and continuity of the nation's electric power supply system and the environmental issues associated with electric power production, transportation, and utilization. He requested support for more research into the possible health-related effects of electric and magnetic fields from electric power transmission and distribution, and he also asked for increased Government funding of programs for electric energy storage systems.

Further, Fancher said that IEEE-USA supports continuing research to maintain a viable nuclear energy option, adding that nuclear fission reactors will be needed to help meet the needs of an expanding economy. He

opposed plans to abandon nuclear reactor research. His testimony also endorsed the Administration's request for continuing funding of fusion research, noting the long-term potential of fusion to provide large amounts of power with environmental advantages and superior operational safety. Copies of his testimony can be obtained from the IEEE-USA Office in Washington, D.C.

IEEE-USA Promotes National Competitiveness Legislation

With strong support from the Clinton Administration, the U.S. House of Representatives has passed the **National Competitiveness Act of 1993, H.R. 820**. The bill would authorize \$1.9 billion in FY 1994-95 Federal investments to strengthen the standards, technology development, and manufacturing outreach programs of the National Institute of Standards and Technology, provide capital for technology commercialization, and expand manufacturing-related activities at the National Science Foundation. The Senate Commerce, Science, and Transportation Committee, is considering a companion bill, S.4, which also contains provisions on information infrastructure and engineering work force issues. A Senate vote on S.4 is expected sometime in June.

IEEE-USA's Competitiveness Committee is working to support passage of this legislation. The Committee has endorsed testimony by Ernest Daman, Chairman of the American Association of Engineering Societies, supporting the manufacturing outreach provisions of H.R. 820. A Legislative Bulletin recently was sent to key contacts urging a letter-writing campaign in support of the bills. For more information on these bills, their provisions and status, contact the IEEE-USA Office in Washington, D.C.

Engineering Ethics Lecture Materials Available

IEEE-USA Ethics Committee members Joseph H. Wujek and Deborah G. Johnson have prepared a speaker's kit to aid lectures on engineering ethics. The kit, "How to Be a Good Engineer," can be used by either engineering students or practicing engineers.

The materials available include a speaker's guide, lecture notes, and 51 masters for overhead foils or slides. A set of 35mm two-color slides is also available.

The kit is arranged so that the speaker may delete portions or supplement additional information. Some of the material is specific to IEEE members, electrical engineering, and computers, but most of it is relevant to general engineering ethics.

Members can receive presentation information at no cost for non-commercial educational purposes. To request a kit, contact the IEEE-USA Office in Washington, D.C.

IEEE Neural Networks Council

November 26, 1993

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VACANT

BEZDEK

| ITEM of BUSINESS | CURRENT STATUS & NOTES | ACTIONS OF THE NNC MEETINGS COMMITTEE |
|------------------|--|--|
| 1991 | <p>IJCNN, Singapore</p> <hr/> <p>Fm M. DeWald, EMAIL, 12/17/93 AND 1/13/94 :</p> <p>JULY, 1992 - RECEIVED FINAL AUDIT SHOWING DEFICIT OF \$24,185.85 USD.</p> <p>SEPTEMBER, 1993 - RECEIVED FINAL FINANCIAL REPORT FROM SINGAPORE SHOWING A DEFICIT OF \$16,087.17 USD. SINCE WE RECEIVED THE ORIGINAL I SENT A COPY TO ROY NUTTER (10/26/93) FOR SOCIETY APPROVAL.</p> <p>NNC GAVE THE CONFERENCE A LOAN OF \$20,000. WE RECEIVED A WIRE TRANSFER OF \$12,778.27 USD AND RECENTLY RECEIVED A CHECK FOR \$3,308.14. BOTH OF THESE AMOUNTS WERE APPLIED TO THE OUTSTANDING LOAN, WHOSE BALANCE IS \$3,913.59 USD.</p> <p>NEEDED FOR CLOSURE:</p> <ol style="list-style-type: none">1. NNC has to approve the final financial report sent to J. Vitale that I sent to Roy Nutter on 10/26/93.2. NNC needs to repay or write off the \$3,913.59 loss. M. Prusan will instruct the NNC society treasurer on the writeoff procedure. | <p>Motion : The NNC approve the final report submitted to J. Vitale, and either repay or write off the \$3,913.59.</p> <p>Result :</p> |

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| <p>----- June 6, 1992 ----- NNC guidelines for contractual services offered by conference management firms (Bezdek)</p> | <p>Pat Simpson agreed to take a first cut at drafting guidelines for all NNC sponsored conferences, one part of which details requirements for contractual services offered to the NNC by conference management firms.</p> | |
| <p>----- Dec. 5, 1992 -----</p> | <p>No discussion of this item at the December meeting.</p> | |
| <p>----- March 27, 1993 -----</p> | <p>Pat is waiting for an electronic template from the IEEE.</p> | |
| <p>----- Sept. 18, 1993 -----</p> | <p>Simpson requested \$400 for secretarial help on the project.</p> | <p>Motion : \$400 to Simpson for secretarial support.</p> |
| <p>----- Jan. 22, 1994 -----</p> | | <p>Result : <i>Approved.</i></p> |

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| June 6, 1992 | COGANN Forum, Baltimore | |
|----------------------------|---|---|
| ----- June 6, 1992 ----- | Roughly 82 paid attendees, probably will be a surplus situation. No action required. Status Report : (R. Eberhart) | |
| ----- Dec. 5, 1992 ----- | Eberhart reported that there will be a surplus of about \$ 1-2 K | |
| ----- March 27, 1993 ----- | No report. | |
| ----- Sept. 18, 1993 ----- | Eberhart stated that the meeting was considered closed. However, the IEEE needs a final report. It will be prepared by Dave Schaffer, ds1@philabs.philips.com | |
| ----- Jan. 22, 1994 ----- | | |
| | | Motion : NNC repay or write off the \$1097.09. |
| | <p>Fm M. DeWald, 1/13/94 : Marilyn Prusan has received a check for \$1902.91. This leaves a balance of \$1097.09 that needs to be repaid or written off. M. Prusan will instruct the NNC society treasurer on the writeoff procedure.</p> <p>NEEDED FOR CLOSURE:</p> <ol style="list-style-type: none"> 1. A final financial report . 2.NNC needs to repay or write off the \$1097.09 loss. M. Prusan will instruct the NNC society treasurer on the writeoff procedure. 3. Surplus, if any. | Result : |
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| October 7-10, 1992 | Rostov-on the Don with RNNS | |
|----------------------------|--|---|
| ----- June 6, 1992 ----- | W. Snyder circulated a preliminary program for this meeting, and speculated that it will probably run a deficit of \approx \$10K. | |
| ----- Dec. 5, 1992 ----- | Snyder reported that the meeting was an academic success, but that the NNC stood to lose as much as \$14K, depending on our success at getting the IEEE to honor the book boker agreement. He stated that \$ 3300 was needed to close the books. | Motion : \$3300 to Snyder to close the accounts of the conference. |
| ----- March 27, 1993 ----- | Final report in progress; proceedings sales netted about \$300.00. | Result : <i>Approved</i> . |
| ----- Sept. 18, 1993 ----- | Marks stated that the meeting was closed, and submitted a copy of all final paperwork and report to the ADCOM . | |
| | <p>Fm : M.DeWald, 12/17/93, 1/13/94, email: IEEE received the final financial report along with a check for \$330.43 from Bob Marks stating this closed the account for conference. In September, 1992 NNC requested a wire transfer be sent to the conference for \$11,000. This loan has not been repaid. This loan needs to be repaid or written off by NNC.</p> | |
| | <p>NEEDED FOR CLOSURE:</p> | |
| | <p>1.NNC needs to repay or write off the \$10,669.57 loss. M. Prusan will instruct the NNC society treasurer on the writeoff procedure.</p> | |

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| Nov. 3-9, 1992 | IJCNN, Beijing, PRC | |
|----------------------------|---|--|
| ----- June 6, 1992 ----- | 400 papers from inside China have been accepted. INNS has not approved cooperation. Meeting to be held at the Continental Grand Hotel. Status Report : (Eberhart) | |
| ----- Dec. 5, 1992 ----- | Academic success. Too early to estimate financial situation. Status Report : (Eberhart) | |
| ----- March 27, 1993 ----- | No report made on this meeting in March. | |
| ----- Sept. 18, 1993 ----- | Eberhart stated that a final report is pending. | |
| ----- Jan. 22, 1994 ----- | Fm : M.DeWald, 1/12/94, email: "As far as I'm concerned IJCNN '92 - Beijing is CLOSED". CLOSED | |

| March 28- April 1, 1993 | FUZZ-IEEE '93/ICNN, San Francisco, CA | |
|----------------------------|--|---|
| ----- June 6, 1992 ----- | Ruspini gave a status report. All contracts have been signed, everything looks pretty good. Requested : \$50 additional seed money. IEEE needs a formal conference formpak completed for ICNN portion - Eberhart to request formpak from Sensi for Ruspini. | Motion : \$ 50K seed to Ruspini : Result : Approved. Motion : Approve budget, pp. 35-38, NNC ADCOM handbook for June 6,7, 1992. Result : Approved. |
| ----- Dec. 5, 1992 ----- | Ruspini gave a status report. Everything seems to be on schedule. Request for help with CD ROM problems. Request for an additional \$ 15 K seed money. | Motion : \$15K additional seed to Ruspini : Result : Approved. |
| ----- March 27, 1993 ----- | Ruspini gave a status report on all areas of the conference. Everything is fine; about 1200 attendees are expected, 1000 are pre-registered. Tutorial income will probably be 1/2 of estimated figure. | |
| ----- Sept. 18, 1993 ----- | Ruspini gave a status report. CD ROMs were a big financial loser. Proceeds will be about \$190K. \$150K has been forwarded to NNC already. Final report will be submitted at the next meeting. | |
| ----- Jan. 22, 1994 ----- | <p>Fm : M.DeWald, 12/14/93, email:</p> <p>Dissolution Agreement Between INNS and NNC</p> <p>6. In regard to the NNC International Conference on Neural Networks to be held in San Francisco in March 1993 in conjunction with the second IEEE International Conference on Fuzzy Systems, NNC agrees to share, on an equal basis, the net surplus of any attendees above 400 at the Neural Networks meeting. The net will be calculated by using the net per attendee for the two conferences.</p> <p>IEEE recently received a 60K wire transfer from NNC for ICNN '93 and FUZZ '93. There were no instructions included as to how the money should be distributed between the two conferences. So, Marilyn Prusan divided the money in half and applied to each conference, is this correct?So that I can respond to Mr. Downey, when can IEEE expect to receive the final financial report and balance of surplus so that the distribution of surplus can be made.</p> <p>NEEDED FOR CLOSURE:</p> <p>Final report including financial statements for each conference.</p> | |

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| <p>Sept. 18-22, 1993</p> <p>----- June 6, 1992 -----</p> <p>----- Dec. 5, 1992 -----</p> <p>----- March 27, 1993 -----</p> <p>----- Sept. 18, 1993 -----</p> <p>----- Jan. 22, 1994 -----</p> | <p>VRAIS conference. Seattle, WA</p> <p>Caudell gave a short report on VRAIS '93, and then requested \$20K additional seed money.</p> <p>Due to an oversight, approval of the budget and seed money which was given by ADCOM in June, '92 did not get into the minutes. Requests to reapprove the budget and authorize 50K seed money (45K prior) were made by the finance chair, Dmitry Kaplan .</p> <p>A revised estimate of attendees (to 610) and budget was submitted. Also, meeting management revised contract by \$5K decrease in letter dated 2/26/93.</p> <p>Caudell gave an oral report. About 305 pre-registrants, about 350 tutorial registrants. Marks introduced a letter of request from Tom Furness that asked to waive registration fees for 22 students and 16 employees of the H.I.T. lab at UW.</p> <p style="text-align: center;">Need Closure Report</p> | <p>Motion : \$20K seed to Caudell : Result : Approved.</p> <p>Motion : Approve budget, pp. 52-57, NNC ADCOM handbook for June, 1992. Result : Approved.</p> <p>Motion : Additional 50K seed money for printing and mailing expenses. Result : Approved.</p> <p>Motion : Approve revised budget, p105, NNC ADCOM handbook for March, 1993. Result : Approved.</p> <p>Motion : Waiver of fees for 38 persons per Furness letter.</p> <p>Result : Failed.</p> <p>Motion : The VWC grant of \$10K to VRAIS may be used to pay the requested fees of any person approved by the VWC until it is expended . Result : Approved.</p> |
| <p>October , 25 - 29, 1993</p> <p>----- June 6, 1992 -----</p> <p>----- Dec. 5, 1992 -----</p> <p>----- March 27, 1993 -----</p> <p>----- Sept. 18, 1993 -----</p> <p>----- Jan. 22, 1994 -----</p> | <p>IJCNN '93, Nagoya, Japan</p> <p>Fukuda gave a status report. Fukuda/Amari request use of the name IJCNN.</p> <p>No report at this meeting.</p> <p>Fukuda gave a status report; everything is in order.</p> <p>Fukuda gave a status report; everything is in order.</p> <p style="text-align: center;">Need Closure Report</p> | <p>Motion : Fukuda advance JICNN as an alternative. If this is not palatable to the Japanese, the meetings committee defers resolution to the NNC Excom. Result : Approved.</p> |

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| June 9-10, 1994 | <i>NNC forum : VR and Persons with Disabilities San Francisco</i> | |
| ----- Sept. 18, 1993 ----- | <p>Harry Murphy presented a proposal requesting co-sponsorship of an NNC forum, the 1994 IEEE NNC Forum on Virtual Reality and Persons with Disabilities. Profits or losses will be shared on a 50-50 basis, and the seed money requested was \$5K.</p> <p>Harry Murphy, GC CSUN Center on Disabilities Cal State University 18111 Nordhoff St. Northridge, CA 91330 vfoao073@vax.csun.edu</p> | <p>----- Motion : Appoint H. Murphy GC. Result : Approved. Motion : Approve budget as submitted, including 5K seed money. Result : Approved. Motion : Put on consent agenda of ADCOM. Result : Approved.</p> |
| ----- Jan. 22, 1994 ----- | <p>Approved in consent agenda by ADCOM</p> <p>M. Dewald : 12/17 : Need Final Budget to IEEE</p> | |

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| June 24 - July 1, 1994 | 1994 WCCI, Orlando : FUZZ-IEEE , ICNN, EC | | |
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| ----- June 6, 1992 ----- | Dr. Piero Bonissone General Electric CR & D 1 River Road : KI-5C32A Schenectady, NY 12301 | Dr. Z.Michalewicz Computer Science Dept. Univ. of North Carolina Charlotte, NC 28223 | Motion : 3 tracks at the WCCI : Result : Approved . GENERAL Chair, C. Robinson at [c.robinson@ieee.org], FUZZ-IEEE : GC = P. Bonissone PC = E. Ruspini ICNN : GC = S. Rogers PC = Dennis Ruck GA/EP : GC = Z.Michalewicz PC = TBD |
| ----- Dec. 5, 1992 ----- | Major Steve Rogers AFIT, School of Engineering Wright Patterson AFB Dayton, OH 45433 | | Charles Robinson School of Health Univ. of Pittsburg Pittsburg, PA 15261 |
| | C. Robinson submitted his resignation as chair, but agreed to serve as co-chair with Marks until a new chair could be found. Committee agreed to recommend J. Zurada. An organizational planning meeting will be held in Orlando on Jan. 9-10; Robinson requested additional 10K in seed money to pay for this meeting. | | Marks was asked if he could find a general chair for the VRAIS portion of the WCCI; he agreed. Motion : 10K seed money to Robinson for organizational meeting and other expenses. Result : Approved . |
| ----- March 27, 1993 ----- | Robinson gave an extensive game plan and budget report. Action on budget was deferred to the ADCOM meeting. | | |
| ----- Sept. 18, 1993 ----- | Marlin said two days of meetings have it under control. Robinson introduced most players to the committee. Security in Orlando a current worry. Robinson introduced three requests, delineated in the next column in this row. | | Motion : Zurada's wife be considered for the position of Admin. Assistant for WCCI, per letter from Zurada. Result : Approved . Motion : The Orlando section of the IEEE amend their previous budget commitment to the WCCI (P. 118, ADCOM book, this meeting) so that they would receive 5% of any surplus, but in the event of loss, would not be liable for 5% of the loss. Result : Failed . |
| ----- Jan. 22, 1994 ----- | M. Dewald : 12/17 : Final Budget received by IEEE | | Motion : 12 officers of the WCCI be granted registration fee waivers at WCCI. Result : Failed . |
| | M. Dewald : 12/17 : Need Society and Sectional Approval | | |

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| <p>Oct. 16-19, 1994</p> <p>----- Jan. 9, 1993 -----</p> <p>----- March 27, 1993 -----</p> <p>----- Sept. 18, 1993 -----</p> <p>----- Jan. 22, 1994 -----</p> | <p>VRAIS - 1994, Raleigh-Durham, NC</p> <p>The VR portion of the WCCI is removed from the 1994 congress, and a separate VR meeting is recommended. Need : Consent agenda approval for Trimble = General Chair.</p> <p>Trimble indicated that the meeting would be in the period 15 Sept-15 Oct. He is seeking industry involvement and VR exhibits. PCs : B. Kenyon (US) and H. Hashimoro (Asia).</p> <p>Trimble has resigned as chair. David Mizell is the new one. Budget for this meeting was approved by ADCOM in real time, with an amendment that reduced the seed money from \$40K to \$10K, delivery of seed money contingent upon approval by ExCom on or before October 15, 1993. Contract for hotel space is signed.</p> <p>M. Dewald : 12/17 : Need Final Budget to IEEE</p> | <p>Motion : Preliminary budget submitted be approved. Result : Approved. (ADCOM tabled to Seattle) Action Item: Appointment letter for Trimble (Eberhart)</p> <p>David Mizell (206) 865-2705 Boeing Computer Services Fax(206) 865-2965 PO Box 24346 mizell@boeing.com Seattle, WA 98124</p> |
| <p>March 20-24, 1995</p> <p>----- June 6, 1992 -----</p> <p>----- Dec. 5, 1992 -----</p> <p>----- March 27, 1993 -----</p> <p>----- Sept. 18, 1993 -----</p> <p>----- Jan. 22, 1994 -----</p> | <p>FUZZ -IEEE (with IFES), Yokohama, Japan</p> <p>Disussion of proposal by Sugeno et. al., presented by Fukuda.</p> <p>No report.</p> <p>Prof. Terano gave a detailed plan for the meeting, and presented a preliminary budget.</p> <p>Budget on p. 29 of current ADCOM book approved by ADCOM.</p> <p>M. Dewald : 12/17 : Need Final Budget to IEEE</p> | <p>Motion : FUZZ-IEEE '95 be held in Yokohama, Japan, as a joint meeting with the LIFE meeting IFES, with M. Sugeno as General Chair, Hirota/Fukuda as co-PCs . Result : Approved.</p> <p>Motion : Approve budget as submitted. Result : Approved. (ADCOM tabled to Seattle).</p> |

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| April, 1995 | CIFE, New York City | |
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| ----- Sept. 18, 1993 ----- | Discussion of proposal presented by Scott Mathews, p. 129 of the current ADCOM book. Budget failed ADCOM, and revision was requested. | Motion : Approve CIFE concept, and appoint Scott Mathews as chair of the OC. Result : Approved . |
| ----- Jan. 22, 1994 ----- | Need : ADCOM approval of revised budget. Revision is in your ADCOM book, p. | Motion : Approve budget with reduction in IEEE seed money to \$41K. Result : Approved . |
| October 23-25, 1995 | ICNN, Perth, Australia | |
| ----- June 6, 1992 ----- | Disussion of proposal presented by Y. Attikiouzel. | Motion : The 1995 ICNN be held in Perth, Australia, with Y. Attikiouzel as General Chair . Result : Approved . |
| ----- Dec. 5, 1992 ----- | Detailed budget presented to committee. | Motion : Approve budget as submitted. Result : Approved . (ADCOM tabled to Seattle). |
| ----- March 27, 1993 ----- | ADCOM approved budget as shown on p. 33 of current ADCOM book, with seed money decreased from 50K to 35 K. | |
| ----- Sept. 18, 1993 ----- | | |
| ----- Jan. 22, 1994 ----- | Need Final Budget to IEEE | |

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| <p>October 26-27, 1995</p> <p>----- Sept. 18, 1993 -----</p> <p>----- Jan. 22, 1994 -----</p> | <p>IEEE Int'l. Symp. on EC, Perth, Australia</p> <p>A proposal to hold an IEEE International Symposium on Evolutionary Computing with Yiannis Attikiouzel as General Chair was presented by Dorota Kieronska. The request was for NNC sponsorship, all profits or losses accruing to the NNC, with 10K seed money.</p> <p>ADCOM approved appointment, and allocated 5K seed money. Y.A. is directed to coordinate committee assignments with the newly created NNC T.C. on E.C.</p> <p>M. Dewald : 12/17 : Final Budget received by IEEE</p> | <p>-----</p> <p>Motion : Appoint Y. Attikiouzel GC. Result : Approved.</p> <p>Motion : Approve budget as submitted, including 10K seed money. Result : Approved.</p> <p>-----</p> |
| <p>June, 1996</p> <p>----- June 6, 1992 -----</p> <p>----- Dec. 5, 1992 -----</p> <p>----- March 27, 1993 -----</p> <p>----- Sept. 18, 1993 -----</p> <p>----- Jan. 22, 1994 -----</p> | <p>ICNN , Washington, D.C</p> <p>Bezdek to contact Perry Sensi about dealing with the Sheraton for the contract. Sensi was reluctant to enter the fray, because Meeting Management made initial contract.</p> <p>Steve Marlin reported that we have a contract in place. Need : General and Program chairs.</p> <p>No one has been identified as general chair for this conference; revisit the problem at our next committee meeting.</p> <p>Continued discussion of who to ask to run the meeting. Bezdek and Marks to make an effort to identify someone to approach. Marlin will check to see if this meeting could be held in 1995 instead of 1996.</p> <p>Need : GC / PC, Proposal, Budget</p> | <p>-----</p> <p>Motion : The NNC will hold an ICNN at the property in 1996, with GC/PC to be determined later. Result : Approved.</p> <p>-----</p> <p>-----</p> <p>-----</p> <p>-----</p> |

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| <p>Sept. 7-11, 1996</p> <hr/> <p>March 27, 1993</p> <hr/> <p>Sept. 18, 1993</p> <hr/> <p>Jan. 22, 1994</p> | <p>FUZZ-IEEE '96, New Orleans</p> <hr/> <p>Fred Petry presented a detailed proposal for meeting in New Orleans.</p> <hr/> <p>ADCOM approved budget as shown on p. 135 of current ADCOM book. Hotel contract in the works, Russ needs to sign it.</p> <hr/> <p style="text-align: center;">Need Final Budget to IEEE</p> | <hr/> <p>Motion : Appoint Fred Petry as GC. Result : Approved. Motion : Approve budget as submitted. Result : Approved. (ADCOM tabled to Seattle).</p> <hr/> |
| <p>Summer, 1997</p> <hr/> <p>Dec. 5, 1992</p> <hr/> <p>March 27, 1993</p> <hr/> <p>Sept. 18, 1993</p> <hr/> <p>Jan. 22, 1994</p> | <p>1997 WCCI, San Diego, CA</p> <hr/> <p>Proposal from the San Diego section of the IEEE for hosting the next West Coast NNC sponsored meeting. Presented by P. Simpson.</p> <hr/> <p>Bob Lobbia presented revised proposal and budget for the meeting. Seed money from San Diego local limited to \$30K total.</p> <hr/> <p>ADCOM again tabled the budget request, p. 25, current ADCOM book. ADCOM passed a motion approving the San Diego IEEE local be given a 10% profit/loss agreement, incl. 10% seed money.</p> <hr/> <p style="text-align: center;">Need : ADCOM budget approval</p> | <hr/> <p>Recommended : P. Simpson will encourage the San Diego section to formulate and submit a revised proposal for the 1997 world congress, detailing their involvement.</p> <hr/> <p>Motion : Approve budget as submitted. Result : Approved. (ADCOM tabled to Seattle).</p> <hr/> |

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| Jan. 22, 1994 | <p>Motion by Wunsch: At the discretion of the conference chair, or his or her designee, invited speakers at conferences sponsored more than 50% by IEEE NNC can be offered a free one-day registration.</p> | <p>Motion : Result</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. 22, 1994 | <p>Motion by Haines: That the NNC accept the following Memorandum of Understanding (MUE) that we have agreed upon. Under this agreement SPIE would be contracted to promote and managed specified exhibits for the IEEE Neural Networks Council. In particular this agreement would cover the WCCI meeting. Basic expenses to be charged to SPIE will include:</p> <ul style="list-style-type: none"> Promotion of exhibits (production and mailing) Calling, contracting, and Exhibitor packages Staff Travel Exhibit Hall Decorations On-Site Management <p>SPIE will submit a specific dollar budget that covers the role of the exhibit manager. The budget will be based on the assumption that X number of exhibitors will participate, some booths, some table tops. The budget will cover all five expense areas charged to the exhibit manager (SPIE). The principles are:</p> <ol style="list-style-type: none"> 1) If the revenues equal the budgeted amount then the exhibit is a break even for all parties. 2) If revenues exceed the budgeted amount, the the surplus is split 50/50 between the parties. 3) If the revenues are below budgeted amount, SPIE will absorb 100% of the down down to a specified "loss level". 4) Below the specified loss level, the meeting will absorb 75% of the loss and SPIE will absorb 25%. <p>Once both parties agreed to a budgeted amount SPIE becomes the exhibit manager for the show. Additional negotiations to raise or lower the budget amount can be undertaken by either party at any time prior to the meeting. Possible reasons to change to budget would be:</p> <ul style="list-style-type: none"> A. The exhibit is selling well and both parties mutually agree to increase promotions, exhibit support activities, etc. B. Response is extremely poor and both parties agree to reduce the budget and the "loss level". <p>The decided WCCI budget is:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Assumptions:</td> <td style="width: 45%;">Sell 15 booths @ \$1400.00</td> <td style="width: 10%; text-align: center;">=</td> <td style="width: 30%; text-align: right;">\$21,000</td> </tr> <tr> <td></td> <td>Sell 15 tables @ \$ 700.00</td> <td style="text-align: center;">=</td> <td style="text-align: right;">\$11,500</td> </tr> <tr> <td></td> <td style="border-top: 1px dashed black;">Total</td> <td style="text-align: center;">=</td> <td style="text-align: right; border-top: 1px dashed black;">\$32,250</td> </tr> </table> <p>Costs:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Promotion</td> <td style="width: 45%; text-align: right;">\$19,000</td> </tr> <tr> <td>Calling, packages</td> <td style="text-align: right;">\$ 7,000</td> </tr> <tr> <td>Staff Travel</td> <td style="text-align: right;">\$ 2,000</td> </tr> <tr> <td>Decorations</td> <td style="text-align: right;">\$ 3,000</td> </tr> <tr> <td>On-site management</td> <td style="text-align: right;">\$ 1,250</td> </tr> <tr> <td style="border-top: 1px dashed black;">Total</td> <td style="text-align: right; border-top: 1px dashed black;">\$32,250</td> </tr> <tr> <td>Budgeted amount</td> <td style="text-align: right;">\$32,250</td> </tr> <tr> <td>Loss Level</td> <td style="text-align: right;">\$25,000</td> </tr> </table> <p>Note: Revenues are strictly from exhibitors. There is no cross over between the conference registration and exhibits.</p> | Assumptions: | Sell 15 booths @ \$1400.00 | = | \$21,000 | | Sell 15 tables @ \$ 700.00 | = | \$11,500 | | Total | = | \$32,250 | Promotion | \$19,000 | Calling, packages | \$ 7,000 | Staff Travel | \$ 2,000 | Decorations | \$ 3,000 | On-site management | \$ 1,250 | Total | \$32,250 | Budgeted amount | \$32,250 | Loss Level | \$25,000 | <p>Motion : Result :</p> |
| Assumptions: | Sell 15 booths @ \$1400.00 | = | \$21,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Sell 15 tables @ \$ 700.00 | = | \$11,500 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Total | = | \$32,250 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Promotion | \$19,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Calling, packages | \$ 7,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Staff Travel | \$ 2,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Decorations | \$ 3,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| On-site management | \$ 1,250 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | \$32,250 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Budgeted amount | \$32,250 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Loss Level | \$25,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

1993 IEEE Neural Networks Council Document
Robert J. Marks II Library Archive

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|---------------|--|------------------------------------|
| Jan. 22, 1994 | <i>Marks: The North American ICNN, 1995, be held in Wash. D.C. June 30- July 7</i> | <i>Motion :</i> <i>Result :</i> |
| Jan. 22, 1994 | | <i>Motion :</i> <i>Result :</i> |
| Jan. 22, 1994 | | <i>Motion :</i> <i>Result :</i> |
| | | |

IEEE Neural Networks Council Award Description

Name of Award:

IEEE Neural Networks Council Pioneer Award

Description:

For significant contributions to the early concepts and developments in the neural networks field. The award is presented annually to outstanding individuals whose main contribution has been made at least fifteen years earlier.

Administration:

By the Awards Committee of the IEEE Neural Networks Council. An ad hoc subcommittee, the Pioneer Award Committee, will solicit nominations and judge the candidates. The Pioneer Award Committee's selections will be submitted to the Awards Committee for approval and to the Administrative Committee of the Neural Networks Council for final approval.

Eligibility:

Open to all meeting the contribution requirements. The award is not to be approved posthumously. Any can nominate.

Award:

A specially struck Neural Networks Pioneer Medal with an engraved citation, and a travel grant for the honoree and a companion to the awards ceremony.

Funds:

Funding will be from revenues of the IEEE Neural Networks Council generated by the International Joint Conference on Neural Networks.

Nominee Selection:

Selection will be based on nomination letters received by the Pioneer Awards Committee.

| <u>IEEE MAILING ADDRESS</u> | <u>CITATION</u> | <u>TECHNICAL SOC. /CNCL ENROLLMENT</u> | <u>EVAL- UATED BY</u> |
|--|--|--|-------------------------------|
| Chen-Ching Liu Dept. of Elec. Engrg, FT-10 University of Washington Seattle, WA 98195 | For contributions to development of knowledge-based systems for power system applications. | 04,16,31 | 31 |
| Dr. Harry F. Lockwood 21 White Oak Road Newton, MA 02168 | For leadership in the development of materials and devices for electronic and optoelectronic applications. | 21,36 | 36 |
| Prof. Vladimir J. Lumelsky Dept. of Mechanical Engrg. University of Wisconsin 1513 University Avenue Madison, WI 53706 | For contributions to the field of robotics and automation, particularly for developing the theory of sensor-based motion planning in an uncertain environment. | 13,16,23, 24,28 | 24 |
| Prof. Mark S. Lundstrom Electrical Engineering Bldg. 1285 Electrical Engineering West Lafayette, IN 47907 | For contributions to hetero-structure device physics and simulation. | 15,36 | 15 |
| Mr. David D. Lynch, Jr. 18651 Gledhill Street Northridge, CA 91324 | For leadership in the development of programmable signal processors and low probability of intercept radar. | 10,16 | 10 |
| Dr. Noel C. MacDonald 515 Highland Road Ithaca, NY 14850 | For contributions to the development and commercialization of the scanning auger microprobe. | 04,15,18, 36,SSC | 15 |
| Francis R. Magee, Jr. Antonia Court Lincroft, NJ 07738 | For contributions to data communications through receiver innovations in high-speed modems, and to protocols for packet-switched networks. | 16,19 | 16 |
| Mr. Shinichi Makino 3-2-12 Tsujido-Higashikaigan Fujisawa 251, Japan | For leadership in the research and development of multipath signal suppression techniques employed in television equipment. | 04,08,SSC | 08 |
| Dr. Manu Malek 57 Maple Drive Colts Neck, NJ 07722 | For technical leadership in contributions to modeling, optimization, operations, and management of telecommunication networks. | 19 | 19 |
| Prof. Luigi F. Malesani Via Antoniazzi 6 Padova, Italy | For contributions to research, education, and industrial development in power electronics. | 13,34,35, NN | 34 |
| Dean Johannes A. G. Malherbe Dean of Engineering University of Pretoria Pretoria 0002 South Africa | For contributions to the development of education in electromagnetics, and to microwave design techniques. | 03,17,25 | 03 |
| Mr. Yakout Mansour B. C. Hydro 970 Burrard Street Vancouver, BC, Canada V6Z 1Y3 | For contributions to the understanding of voltage stability in large power system networks. | 31 | 31 |
| Robert J. Marks, II 199th St. SW, Suite N Wood, WA 98036 | For leadership in, and contributions to, the field of neural networks. | 01,04,18, 22,28,31, NN | NN |
| Dr. Akira Masaki 1-1-14 Kichijoji-Kita-Machi Musashino-Shi, Tokyo 180 Japan | For contributions to integration technologies for high-performance computer logic. | 15,16,21, SSC | SSC |

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|--|--|---|-------------------------------|
| Dr. Ralph D. Masiello 19271 San Marcos Road Saratoga, CA 95070 | For leadership in the development of methods and systems for secure and economic operation of power systems. | 31 | 31 |
| Dr. Toshiaki Masuhara 2196-278 Hirai Hinode-Machi Nishitama-Gun Tokyo 190-01, Japan | For contributions in the invention and development of NMOS circuits and high-speed CMOS static memories. | 15,19,SSC | SSC |
| Prof. Harold F. Mattson, Jr. CIS-4-116, CST Building Syracuse University Syracuse, NY 13244 | For theoretical contributions to error-correcting codes. | 12 | 12 |
| Prof. Robert W. McMillan Georgia Tech Res. Inst., EML/MMD 225 North Avenue, NW Atlanta, GA 30332 | For development of phase and frequency control techniques for millimeter-wave electromagnetic sources. | 03,17,36 | 17 |
| Dr. L. N. Medgyesi-Mitschang 14 Cricklewood Place St. Louis, MO 63131 | For contributions to computational techniques for modeling electromagnetic radiation and scattering from complex objects. | 03,17 | 03 |
| Dr. Benjamin Melamed 5 Miller Lane Warren, NJ 07059 | For contributions to performance analysis methodology and practice. | 16 | 19 |
| M. Ray Mercer 14 Thousand Oaks Drive Austin, TX 78746 | For contributions to the art and science of testing logic networks. | 16 | 16 |
| Dr. Paul Mermelstein 6852 Emerson Road Cote St.Luc, Que. CAN H4W 1G5 | For leadership in industry/university collaborative research in speech coding and recognition. | 01,19 | 01 |
| Prof. Richard K. Miller Iowa State Univ., Dept. of Math. Ames, IA 50011 | For contributions to the analysis of multivariable nonlinear systems. | 04,16,23 24 | 04 |
| Dr. Martin Misakian Nat'l. Inst. of Standards & Tech. Bldg. 220, Room B344 Gaithersburg, MD 20899 | For contributions to instrumentation and measurement techniques for low-frequency electric and magnetic fields. | 31 | 31 |
| Dr. Michael A. Morgan 1265 Surf Avenue Pacific Grove, CA 93950 | For theoretical contributions to finite element techniques applied to electromagnetic scattering, and for academic leadership. | 03,17,27 | 03 |
| Prof. Jose M. F. Moura Carnegie Mellon Univ., ECE Dept 5000 Forbes Avenue Pittsburgh, PA 15213 | For contributions to nonlinear filtering and model-based signal processing. | 01,04,10, 12,22 | 01 |
| Dr. Vladimir M. Muljević Unska 3 Zagreb 41000, Croatia | For leadership in cybernetics and control engineering education, and in the history of technology. | 13,23,28, 34 | 25 |
| Takuro Muratani America Inc. 750 Lexington Avenue/28th Floor New York, NY 10022 | For contributions to digital satellite communication systems and to efficient use of the geostationary satellite orbit. | 19 | 19 |
| Dr. Ravi Nair IBM/TJ Watson Research Center P. O. Box 218 Yorktown Heights, NY 10598 | For contributions to design automation for VLSI and microprocessor design. | 16 | 16 |

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|--|---|---|-------------------------------|
| L Thomas W. Nehl 5001 Eastbrook Court Shelby TWP, MI 48316 | For contributions to digital network modeling and development of electronically operated permanent magnet machine systems and drives. | 31,34 | 31 |
| Prof. Arye Nehorai Yale University, Dept. of EE P.O. Box 2157, Yale Station New Haven, CT 06510 | For contributions to statistical signal processing and system identification. | 01,09,10, 12,18,20, 23 | 01 |
| Dr. David Neuhoff 2675 Newport Road Ann Arbor, MI 48103 | For contributions to the theory of universal source coding and asymptotic vector quantization. | 01,12,19 | 12 |
| Prof. Lionel M. Ni Michigan State Univ., Dept. of CS A714 Wells Hall East Lansing, MI 48824 | For contributions to parallel processing and distributed systems. | 16,19 | 16 |
| Dr. Kinichiro Ogawa AT&T Bell Labs./Rm. 2S-158D 9999 Hamilton Blvd. Breinigsville, PA 18031 | For contributions to the development of high-speed optical fiber communication systems. | 19 | 19 |
| Mr. Joseph C. Osterhout Joslyn Corp. 9200 W. Fullerton Avenue Franklin Park, IL 60131 | For contributions to the development and application of silicon carbide and metal oxide surge arresters. | 31 | 31 |
| M Tom Yasuo Otoshi Henrietta La Crescenta, CA 91214 | For contributions to deep space communications and radio science. | 03,17 | 17 |
| Dr. Kenju Otsuka NTT Basic Research Labs. 3-9-11 Midoricho, Musashino-shi Tokyo, 180 Japan | For contributions to photonic devices and nonlinear dynamics in optical systems. | 36 | 36 |
| Mr. Stephen Pardee 29 Norwood Avenue Summit, NJ 07901 | For pioneering leadership in the development of electronic design automation systems. | 16 | 16 |
| Dr. Thomas E. Parker 13 Cider Mill Road Framingham, MA 01701 | For contributions to the development of high-stability surface acoustic wave oscillators. | 20 | 20 |
| Dr. Martin C. Peckerar 12917 Buccaneer Road Silver Spring, MD 20904 | For contributions to and leadership in X-ray and microlithography. | None | 15 |
| Dr. Jose Perini 676 Dwyer Road Virginia Beach, VA 23454 | For contributions to the advancement of electromagnetic compatibility in the topside design of navy ships. | 03,17,27 | 27 |
| Prof. Chandler A. Phillips Wright State Univ., Eng. Dept. Dayton, OH 45435 | For contributions to biomedical engineering education. | 18,25 | 25 |
| Prof. Giorgio M. Picci di Elettronica E Info. Universita di Padova Via Gradenigo 6/A 35131 Padova, Italy | For contributions to the modeling and realization of stochastic systems. | 12,13,23 | 23 |
| Dr. Alberto Pigini c/o Cesi Spa Via Rubattino 54 20134 Milano, Italy | For leadership in high-voltage research with special reference to external insulation, diagnosis, and testing of power apparatus. | 31,32 | 31 |

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|---|--|---|-------------------------------|
| Prof. Eugene I. Plotkin Dept. of Elec. Engrg. Concordia University Montreal Que., Canada H3G 1M8 | For contributions to nonlinear- structural and time-varying systems with applications to parameter estimation and rejection and enhancement of signals. | 01,04 | 04 |
| Dr. Hans W. Poetzl Gusshausstrasse 27-29 A-1040 Wien, Austria | For contributions in education and research in the field of semiconductors physics and device modeling. | 04,15,36 SSC | 15 |
| Dr. Dusan Povh Siemens AG Dept. EV NP P. O. Box 3220 D-8520 Erlangen, Germany | For contributions to the analysis of ac and dc systems and control of high-voltage dc converters. | 31 | 31 |
| Prof. Antti V. A. Räsänen Helsinki Univ. of Technology Radio Laboratory SF 02150 Espoo, Finland | For contribution to and leadership in millimeter-wave receiver technology. | 03,17 | 17 |
| Prof. Venkatachari Rajagopalan Dept. of Engineering University du Quebec, CP 500 Trois Rivieres, Que., Can. G9A 5H7 | For contributions to power electronics education and research in computer-aided analysis of power electronic systems. | 13,34,35 | 13 |
| Prof. Ramachandra Ramakumar 2623 N. Husband Street Stillwater, OK 74075 | For contributions to renewable energy systems and leadership in power engineering education. | 31,34 | 31 |
| Konrad Reichert Sonartenfelsstr 1 CH 5430 Wettingen, Switzerland | For contributions to the analysis of electromagnetic fields, and planning and operation of power systems by means of numerical methods. | 13,31,33, 34,35 | 31 |
| Dr. Sembiam R. Rengarajan 1145 Valley View Avenue Pasadena, CA 91104 | For contributions to the analysis and synthesis of slot array antennas and electrical engineering education. | 03,17 | 03 |
| Mr. Ralph G. Rhudy 19 Bromley Place Scotia, NY 12302 | For innovations in insulation systems, insulation testing, analysis for windings of ac rotating machines, and canned motor and electromagnetic pumps. | None | 31 |
| Dr. Vittorio Rizzoli Via Rialto 18 40124 Bologna, Italy | For contributions to the simulation and design of nonlinear microwave integrated circuits. | 17 | 17 |
| Mr. Jesse E. Russell AT&T Bell Labs., Room 3F-301A 67 Whippany Road Whippany, NJ 07981 | For technical leadership in the development of digital wireless communication concepts, technol- ogy, systems, and standards. | 06,16 | 06 |
| Prof. Peter H. Russer Inst. für Hochfrequenztechnik Techn. Universität München Arciss. 21 85333 Munich 2, Germany | For fundamental contributions to noise analysis and low-noise optimization of linear electronic circuits with general topology. | 03,04,16 17,20,27, 36,SSC | 17 |
| Mr. Theodore S. Rzeszewski 128 E. Hickory Lombard, IL 60148 | For contributions to the design and development of frequency- synthesized tuning, and of "flesh tone" correction for television receivers, and of high-definition television systems. | 08,19 | 08 |

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| Shuzo Saito Izumihaitsu 704 Chuuou 1-1-3-38 Atsubetsu-ku Sapporo 004, Japan | For contributions to speech processing systems based on maximum likelihood spectral estimation and partial auto-correlation coefficients. | 01 | 01 |
| Prof. Sheppard J. Salon Dept. of Elec. Power Engrg. Rensselaer Polytechnic Inst. Troy, NY 12180 | For contributions to the development of numerical methods and computer software for analyzing electric machine design and performance. | 31,33,34, 35 | 31 |
| Prof. Mulukutla S. Sarma Dept. of Electrical Engrg. Northeastern University Boston, MA 02115 | For contributions to electric power engineering education and to research in electric machine and magnetic system design. | 31 | 31 |
| Prof. Tsutomu Sasao Dept. of Elec. & Computer Science Kyuushu Institute of Technology Iizuka 820, Japan | For contributions to design theory and techniques of combinational logic circuits. | 04,16,SSC | 16 |
| Dr. A. Mayer Sasson Consolidated Edison of NY 128 West End Avenue New York, NY 10023 | For contributions to power systems analysis and real-time monitoring, and for the advancement of open systems concepts applied to control centers. | 31 | 31 |
| Prof. Alexander A. Sawchuk Univ of So. Calif., MC2564/EEB 404B Angeles, CA 90089 | For contributions to digital image processing and optical information processing. | 01,16,19, 36 | 36 |
| Prof. Karl H. Schoenbach Old Dominion Univ., Dept of ECE Duckworth-Kaufman Hall Norfolk, VA 23529 | For contributions to the research and development of very-high-power electronic devices. | 05,15 | 05 |
| Dr. James R. Schwank 5709 Elderberry Ct., NE Albuquerque, NM 87111 | For contributions to the field of radiation effects on electronic devices and integrated circuits. | 05 | 05 |
| Dr. John L. Semmlow 81 Louis Street New Brunswick, NJ 08901 | For contributions in noninvasive detection of coronary artery disease. | 01,18 | 18 |
| Prof. Uri Shaked Tel-Aviv Univ., Dept of EE Sys. 69978 Tel-Aviv, Israel | For contributions to the theory of singular optimal estimation and to linear control theory. | 01,23 | 23 |
| Prof. Shlomo Shamai Dept. of Electrical Engrg. Technion-City Haifa 32000, Israel | For contributions to Shannon theory as applied to the evaluation of the reliability of communication channels. | 01,12,19 | 12 |
| Dean Yacov A. Shamash College of Engineering SUNY at Stony Brook Stony Brook, NY 11794 | For achievements and leadership in creating, nurturing, and executing vigorous interaction between academia and industry. | 10,23 | 25 |
| Prof. Hiroshi Shigesawa Hiroshima Univ., Eng. Faculty Asama Imadegawa, Kamikyo-ku 730-602, Japan | For contributions to basic guided-wave effects and structures at millimeter and submillimeter wavelengths. | 03,17 | 17 |
| Dr. Chia H. Shih 2224 Sandover Road Upper Arlington, OH 43220 | For contributions to the development of surge arresters on transmission lines. | 31 | 31 |

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|--|---|---|-------------------------------|
| Prof. Yasutaka Shimizu Cradle Tokyo Inst. of Technology 2-12-1 O-Okayama Meguru-ku Tokyo 152, Japan | For contributions to research and development in the field of educational technology, electromagnetic compatibility, and surface acoustic waves. | 17,20,25, 27 | 25 |
| Dr. Richard R. Shively AT&T Bell Labs, 1A 156 Whippany, NJ 07981 | For contributions to the design and application of programmable, real-time, and parallel signal processors. | 01,16 | 01 |
| Dr. Farrokh Shokooh Operation Tech. Inc./Ste. 102 COA 17870 Skypark Circle Irvine, CA 92714 | For contributions to the development of computer simulation and modeling techniques for electrical power systems, and leadership in electrical power engineering education. | 31,34 | 34 |
| Dr. W. David Sincoskie RR #3, Box 181-A Hampton, NJ 08827 | For contributions and innovations in fast packet switching, leading to the development of an international broad-band information infrastructure. | 16,19 | 19 |
| Dr. Burton J. Smith Tera Computer Co., Ste. 300 400 North 34th Street Seattle, WA 98103 | For contributions to the design and development of scalable shared memory multiprocessors. | 16 | 16 |
| Prof. Victor Solo Macquarie Univ., Statistics Dept Sydney NSW 2109, Australia | For contributions to the theory of signal processing, identification, and control. | 01,23 | 23 |
| Mr. T. Michael Souders Nat'l. Inst. of Standards & Tech. Room B162, Bldg. 200 Gaithersburg, MD 20899 | For advancing the state of the art in characterizing and testing of data converters, waveform digitizers, and equivalent-time sampling systems. | 04,09 | 09 |
| Prof. Rodney J. Soukup Dept. of Electrical Engrg. University of Nebraska Lincoln, NE 68588 | For contributions to electrical engineering education and the advancement of thin film technology. | 25 | 25 |
| Mr. James P. Spratt 2728 Llama Court Rancho La Costa, CA 92009 | For contributions to the design and fabrication of radiation-hardened integrated circuits, and to advances in semiconductor device technology. | 05,15,SSC | 05 |
| Prof. Sargur N. Srihari Cedar UB Commons, Ste. 202 SUNY Buffalo, 520 Lee Entrance Buffalo, NY 14228 | For contributions to character recognition and document understanding systems. | 01,16,NN | 16 |
| Dr. Robert L. Steigerwald 3 Sandstone Drive Burnt Hills, NY 12027 | For contributions to the development of resonant power converters for industrial and aerospace applications. | 34,35 | 35 |
| Prof. Petre Stoica Automatic Control Dept. Bucharest Polytechnic Institute R-77206 Bucharest, Romania | For contributions to statistical signal processing and system identification. | 16 | 01 |
| Dr. Johannes M. C. Stork IBM/T J Watson Research Center P. O. Box 218 Yorktown Heights, NY 10598 | For contributions to SiGe heterojunction bipolar technology. | 15 | 15 |

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|--|---|---|-------------------------------|
| Larry B. Stotts DARPA, Adv. Systems Tech. Ofc. 3701 N. Fairfax Drive Arlington, VA 22203 | For contributions to low-contrast target detection in clutter using multispectral optical and infrared image sequences. | 10 | 10 |
| Prof. John W. Strohbehn 6004 Parkhurst Hall, Rm. 204 Dartmouth College Hanover, NH 03755 | For contributions to the use of hyperthermia in cancer therapy, and to higher education. | 18 | 18 |
| Dr. Robert L. Sullivan 407 Anchor Key Melbourne, FL 32951 | For contributions to electrical engineering education and leadership in organizations devoted to electrical engineering education. | 25,31 | 25 |
| Dr. Toshio Suzuki Toshiba Corp. Heavy Apparatus Eng. Lab. 2-1 Ukishima-cho Kawasaki-ku Kawasaki 210, Japan | For contributions to the reliability of substation equipment through application of insulating materials. | 31,32 | 32 |
| Mr. Robert G. Swartz AT&T Bell Labs., 4E-324 Holmdel, NJ 07733 | For contributions to the design of high-speed integrated circuits for optical communication systems. | 15,SSC | SSC |
| Dr. Tasuku Takagi Nakayama 5-2-20 Aoba-ku Sendai 981, Japan | For contributions in the field of electromagnetic compatibility, specifically electric contact phenomena. | 09,17,19, 21,27 | 27 |
| Yasuo Takemura 2-7-22-204 Tamagawa, Ohta-ku, Tokyo 146, Japan | For contributions to color television camera technologies. | 08 | 08 |
| Prof. Sarosh N. Talukdar Dept. of EE/Schenley Park Carnegie-Mellon University Pittsburgh, PA 15213 | For applications of artificial intelligence and numerical methods to power system analysis. | 31 | 31 |
| Prof. Desmond P. Taylor Dept. of EEE University of Canterbury Christchurch, New Zealand | For contributions to the theory and practice of signal space encoded signaling. | 10,12,19, 28 | 19 |
| Dr. Russell H. Taylor IBM/T.J. Watson Research Center P. O. Box 218 Yorktown Heights, NY 10598 | For contributions and leadership in the theory and implementation of programmable sensor-based robot systems and in their application to surgery and manufacturing. | 16,18,23, 24,28 | 24 |
| Prof. Richard J. Temkin MIT, NW-16/Plasma Fusion Ctr. 167 Albany Street Cambridge, MA 02139 | For leadership in the development and application of millimeter-wave and infrared coherent sources. | 05,15,17, 36 | 15 |
| Mr. John B. Terry 1144 Upper Dwyer Hill Road Carp, Ont., Canada K0A 1L0 | For contributions to digital switching systems. | 08,19 | 19 |
| Dr. Baldev Thapar Dept. of EE, Montana State Univ. Bozeman, MT 59717 | For contributions to the design and analysis of power system grounding. | 31 | 31 |
| Mr. Pierre A. Thollot Sundstrand Research Corp. 4747 Harrison Avenue Rockford, IL 61125 | For contributions to the promulgation, growth, and application of power electronics technology. | 35 | 35 |

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|--|--|---|-------------------------------|
| I. Robert J. Thomas School of Electrical Engrg. Cornell University 396 Eng. & Theory Center Ithaca, NY 14853 | For leadership in power systems engineering education and research, and for contributions to the analysis and control of power systems. | 04,23,31, NN | 31 |
| Dr. Richard D. Thornton 330 Garfield Road Concord, MA 01742 | For contributions to suspension and propulsion technology for magnetic levitation. | None | 33 |
| Dr. Sandip Tiwari 791 Pines Bridge Road Ossining, NY 10562 | For contributions to heterostructure devices. | 15 | 15 |
| Prof. H. Joel Trussell No. Carolina State Univ., EE Dept Raleigh, NC 27695 | For contributions to the theory of multidimensional signal restoration and reproduction. | 01,04 | 01 |
| Prof. Jitendra K. Tugnait Auburn Univ., Dept. of EE Auburn, AL 36849 | For contributions to statistical signal processing and stochastic systems analysis. | 01,12,19, 23,NN | 23 |
| Dr. Rao R. Tummala IBM Corporation, Z/81A Hopewell Junction, NY 12533 | For contributions to the development of multichip packages for high-performance computers. | 16,21 | 21 |
| Prof. Shiro Usui Dept. of Info./Computer Science Toyohashi Univ. of Technology Toyohashi 441, Japan | For contributions to applications of neural networks to color vision discrimination. | 01,16,18, 23,28,NN | NN |
| f. Andries van Dam Brown University Box 1910 Providence, RI 02912 | For contributions to computer graphics and leadership in computer graphics standards and education. | 16 | 16 |
| Mr. Rory L. Van Tuyl P. O. Box 10350 Palo Alto, CA 94303 | For contributions to the development of gallium arsenide integrated circuits. | 15,17,36, SSC | SSC |
| Dr. Wolfhard J. Vogel 10100 Burnet Road Austin, TX 78758 | For contributions to the understanding of Earth-space propagation, especially in connection with the land mobile-satellite service. | 03,19 | 03 |
| Mr. Ping-Yang Wang House 12, Apt. 3, Bldg. 11 Region No. 3, Liu Pu Kang 100011 Beijing, China | For leadership in the advancement of China's modern electric power system. | 31 | 31 |
| Prof. Wen I. Wang Columbia Univ., EE Dept-1320 Mudd New York, NY 10027 | For contributions to compound semiconductor devices through innovative crystal growth. | 15,36 | 15 |
| Mr. Kojiro Watanabe NEC Research Institute 4 Independence Way Princeton, NJ 08540 | For the introduction of digital signal processing techniques to the realization of data modems. | 19 | 19 |
| Mati Wax P.O. Box 2250 21 Haifa, Israel | For contributions to sensor array signal processing and model selection. | 01 | 01 |
| Mr. Thomas L. Weaver 2013 S. Holland Street Lakewood, CO 80227 | For leadership in advanced planning, design, and application of new technologies to enhance the efficiency and reliability of electric power delivery systems. | 31 | 31 |

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|---|--|---------------------------------------|---------------------|
| Robert J. Weber 115th Road Boone, IA 50036 | For contributions to microwave solid-state circuit design applied to high-power sources. | 15,17 | 17 |
| Dr. Donald D. Weiner 3 Jamar Drive Fayetteville, NY 13066 | For contributions to the analysis of nonlinear effects in electromagnetic compatibility. | 01,10,27 | 27 |
| Dr. Clifford J. Weinstein MIT Lincoln Laboratory, Rm B-335 244 Wood St., POB 73 Lexington, MA 02173 | For technical leadership in speech recognition, packet speech, and integrated voice/data networks. | 01,19 | 01 |
| Prof. Ehud Weinstein Tel-Aviv Univ., Eng. Faculty Ramat-Aviv Tel-Aviv 69978, Israel | For contributions to the application of statistical methods to signal processing and time delay estimation. | 01,04,12,23 | 01 |
| Prof. Werner Wiesbeck University Karlsruhe Kaiserstr 12 D-76131 Karlsruhe, Germany | For contributions to wide-band polarimetric radar metrology. | 03,06,17,19,20,29 | 29 |
| Mr. Alan D. Wilson IBM Corporation, 18-010. P. O. Box 218 Yorktown Heights, NY 10598 | For contributions to electron-beam lithography and leadership in the development of X-ray lithography. | None | 15 |
| Prof. Thomas G. Wilson Dept. of Electrical Engrg. University Raleigh, NC 27706 | For contributions to understanding and modeling the nonlinear behavior of power electronics components, circuits, and systems. | 10,13,33,34,35 | 35 |
| Prof. Herbert G. Winful Dept. of ECE Science University of Michigan Ann Arbor, MI 48109 | For contributions to the understanding of nonlinear optical instabilities in semiconductor laser arrays, periodic structures, and birefringent optical fibers. | 36 | 36 |
| Dr. Horst R. Wittmann Air Force Offic Sci. Res. Bldg. 410 Bolling AFB, DC 20332 | For technical leadership in the initiation of basic research programs in electronic sciences and quantum size devices. | 15 | 15 |
| Prof. Gerard T. Wrixon Microelectronics Res. Ctr. University College Cork, Ireland | For contributions to millimeter-wave and photovoltaic systems technology, and for leadership in education and academic research. | 15,SSC | 17 |
| Dr. Chang-Yu Wu 48 Sherwood Heights Wappingers Falls, NY 12590 | For technical leadership in the design of an electromagnetic compatibility laboratory. | 27 | 27 |
| Dr. Hiro Yamasaki 2-47-9 Den-en hofu Ohta-ku Tokyo 145 Japan | For individual contributions and leadership in intelligent sensing technology. | 13 | 13 |
| Dr. Kung Yao 14856 Jadestone Drive Sherman Oaks, CA 91403 | For contributions in communication theory, signal theory, and systolic algorithms. | 01,12,19 | 12 |
| Prof. f. Asser A. Zaky Dept. of EE/Sultan Qaboos Univ. P. O. Box 32483-Alkhod/Muscat Sultanate of Oman | For leadership in electrical engineering education and contributions to the understanding of con-duction and breakdown in dielectric liquids. | 31,32 | 32 |

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|--|--|---|-------------------------------|
| Bernard P. Zeigler 6905W Donatello Way Tucson, AZ 85741 | For contributions to the theory of discrete event systems modeling and simulation. | 16 | 28 |
| Prof. Zhi-gang Zhou Dept. of Math Science & Engrg. Tsinghua University, Beijing 100084, China | For technical leadership in the establishment of a national inorganic nonmetallic materials program in China, and for innovations in ferroelectrics. | 21 | 21 |
| Dr. Richard W. Ziolkowski 6961 N. Solaz Tercero Tucson, AZ 85718 | For contributions to the theory of localized waves and their realization in pulse-driven arrays and for contributions to computational electromagnetics. | 03,05,17 | 03 |
| Mr. Donald W. Zipse 666 Kadar Drive West Chester, PA 19382 | For leadership in implementing technology for industrial codes and standards. | 34 | 34 |
| Prof. Peter S. Zory, Jr. Dept. of EE, 129 Larsen Hall University of Florida Gainesville, FL 32611 | For contributions to the development and understanding of semiconductor and gas lasers. | 36 | 36 |



SOCIETY/COUNCIL CODE DESIGNATIONS

| | | |
|----|-----------------|--|
| 01 | SP | SIGNAL PROCESSING |
| 02 | BT | BROADCAST TECHNOLOGY |
| 03 | AP | ANTENNAS and PROPAGATION |
| 04 | CAS | CIRCUITS and SYSTEMS |
| 05 | NPS | NUCLEAR and PLASMA SCIENCES |
| 06 | VT | VEHICULAR TECHNOLOGY |
| 07 | R | RELIABILITY |
| 08 | CE | CONSUMER ELECTRONICS |
| 09 | IM | INSTRUMENTATION and MEASUREMENT |
| 10 | AES | AEROSPACE and ELECTRONIC SYSTEMS |
| 12 | IT | INFORMATION THEORY |
| 13 | IE | INDUSTRIAL ELECTRONICS |
| 14 | EM | ENGINEERING MANAGEMENT |
| 15 | ED | ELECTRON DEVICES |
| 16 | COMP | COMPUTER |
| 17 | MTT | MICROWAVE THEORY and TECHNIQUES |
| 18 | EMB | ENGINEERING in MEDICINE and BIOLOGY |
| 19 | COMM | COMMUNICATIONS |
| 20 | UFFC | ULTRASONICS, FERROELECTRICS, and FREQUENCY CONTROL |
| 21 | CHMT | COMPONENTS, HYBRIDS, and MANUFACTURING TECHNOLOGY |
| 22 | OE | OCEANIC ENGINEERING |
| 23 | CS | CONTROL SYSTEMS |
| 24 | RA | ROBOTICS and AUTOMATION |
| 25 | Ed | EDUCATION |
| 26 | PC | PROFESSIONAL COMMUNICATION |
| 27 | EMC | ELECTROMAGNETIC COMPATIBILITY |
| 28 | SMC | SYSTEMS, MAN, and CYBERNETICS |
| 29 | GRS | GEOSCIENCE and REMOTE SENSING |
| 30 | SIT | SOCIAL IMPLICATIONS of TECHNOLOGY |
| 31 | PE _n | POWER ENGINEERING |
| 32 | DEI | DIELECTRICS and ELECTRICAL INSULATION |
| 33 | MAG | MAGNETICS |
| 34 | IA | INDUSTRY APPLICATIONS |
| 35 | PE ₁ | POWER ELECTRONICS |
| 36 | LEO | LASERS and ELECTRO-OPTICS |

NONE NN NEURAL NETWORKS (COUNCIL)

NONE SSC SOLID-STATE CIRCUITS (COUNCIL)

UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98195

Department of Electrical Engineering, FT-10
Telephone: (206) 543-2150
FAX: (206) 543-3842

February 1, 1993

Col. Travis Simpson
Dept. of Elec. Engr. - Room 224
Texas Tech University
6th Street and Boston Avenue
Lubbock, Texas 79409

Dear Travis:

Here is my picture!

Sincerely,

A handwritten signature in black ink that reads "Bob" with a small flourish underneath.

Robert J. Marks II

Enclosure

TEXAS TECH
UNIVERSITY

file

Department of Electrical Engineering

Box 4439
Lubbock, TX 79409-3102
(806) 742-3533
FAX: (806) 742-1245

January 28, 1993

Dr. Robert J. Marks II
1131 199th Street S.W.
Lynnwood, WA 98036

Dear Bob:

Congratulations on your election to the Texas Tech Electrical Engineering Academy. We are very pleased to point to our alumni as examples of success in their profession. This selection was made to recognize your contributions to the profession and in bringing credit to the Department all of which has inspired our students.

The selection committee (made up of the Department Chairman, Industrial Advisory Board current Chairman and outgoing Chairman, TTEEA President, a IEEE student chapter member, a faculty representative, a past recipient and an "at-large" participant) is indeed proud to have you as a member of the "Academy". This is the highest tribute the Department can bestow and in turn you have brought distinction to the "Academy."

You will be recognized at the student/faculty IEEE dinner the evening of April 1, 1993 at the McInturff Center at the University Medical Center (see attached map) at 6:30 p.m. A plaque with your picture, your name, title/position, and organization/company will be placed in a classroom with the other academy members plaques. Please advise Sandi Willingham (806/742-3533) no later than Monday, March 29, if you plan to attend and need motel reservations. A block of rooms have been reserved at the Paragon Hotel, 4115 Brownfield Highway -- \$46.00 per night.

Please complete the enclosed EE Academy Form or send a current resume with your photograph for the plaque and our files.

We will forward a program with a list activities planned during your visit as soon as it is available.

Once again, congratulations!!

Sincerely,



Marion Hagler
P.W. Horn Professor and Chairman

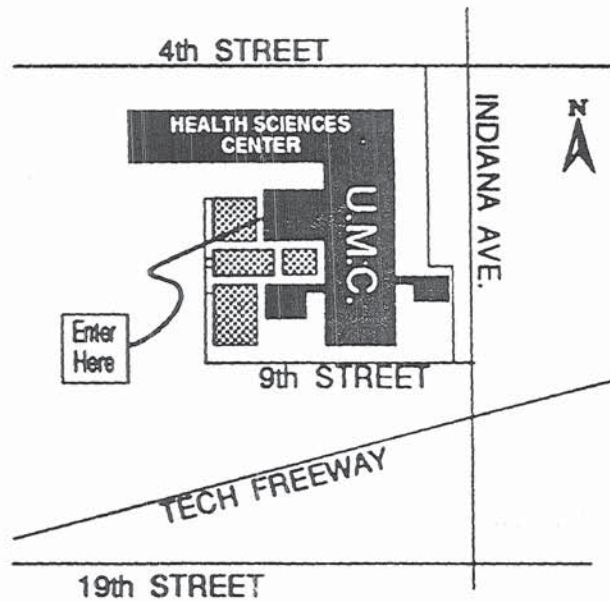
MH/sw

Enclosures

This locator map does not contain all streets or parking areas.

Easy access from Indiana Ave. Turn west on 9th to parking on west side of University Medical Center. Follow "Conference Center" signs.

 Parking for McInturff Center



University Medical Center
602 Indiana Ave.

ELECTRICAL ENGINEERING ACADEMY NOMINATION FORM

| | |
|---|---|
| NOMINEE'S NAME: | NOMINATED BY: |
| ADDRESS: | ADDRESS: |
| | SIGNATURE: |
| TELEPHONE: HOME () OFFICE () | TELEPHONE: HOME () OFFICE () |
| STATUS: [] SELF-EMPLOYED [] OTHER EMPLOYED [] RETIRED [] DECEASED [] OTHER | |
| EMPLOYER AND LOCATION: | POSITION AND TITLE: |
| PAPERS PUBLISHED/DATES: | |
| TECH ACTIVITIES (E.G., TTEE ADVISORY BOARD: 1982-1986): | |
| PROFESSIONAL RESPONSIBILITY - MOST RECENT FIRST | |
| CIVIC ACTIVITIES (E.G., ROTARY CLUB: 1973-PRESENT): | |
| SOCIETY MEMBERSHIPS (E.G., IEEE): | |
| AWARDS AND HONORS (E.G., NOBEL PRIZE IN PHYSICS: 1988): | |
| OTHER PERTINENT INFORMATION (E.G., MILITARY SERVICE-RANK/GRADE): | |

FIRST CALL FOR PAPERS AND PARTICIPANTS

The First New Zealand International Two-stream Conference on Artificial Neural Networks and Expert Systems- ANNES'93

November 24-26, 1993
University of Otago, Dunedin, New Zealand

LETTER from the President of the New Zealand Computer Society:

Dear Colleague,

It has been suggested by NZCS members and members of the Expert Systems Interest Group that we should hold a conference on Expert Systems in 1993. We are now glad to invite you to participate to The First New Zealand International Two-stream Conference on Artificial Neural Networks and Expert Systems ANNES'93. The aim of the conference is to gather together scientists, industry and business representatives in order to enrich their knowledge and technological skills in developing knowledge based systems and their numerous applications. I would recommend this conference to you and urge you to attend.

*Yours faithfully,
Philip Sallis*

TOPICS OF INTEREST

- * Artificial neural networks: models; architectures; algorithms; software tools; hardware implementations; cognitive models of the brain and their impact.
- * Neural networks for problem solving: handling large experimental data bases; speech-, image- and text processing; time-series prognosis; control; diagnosis, etc.
- * Fuzzy systems: methods; tools; software and hardware implementations; fuzzy systems for problem solving.
- * Expert systems: methods for representing inexact data and uncertain knowledge; approximate reasoning; tools and systems; object-oriented systems.
- * Hybrid systems: integrating neural networks and AI-techniques; integrating neural networks and fuzzy systems; extending existing software tools with fuzzy reasoning and neural nets.
- * Industrial applications of expert systems and neural networks: manufacturing; process control; quality testing; etc.
- * Business applications of neural networks and expert systems: Finance; Economics; Marketing; Management; Banking; etc.
- * Applications of neural networks and expert systems in Agriculture, Environment protection, Medicine, Geographic information systems; and other application areas.
- * The impact of neural networks and expert systems to the future IT development.

INVITED KEYNOTE SPEAKERS

Professor Takeshi Yamakawa, Department of Computer Science and Control, Kyushu Institute of Technology, Chairman of the Fuzzy Logic Systems Institute (Japan).

Professor V.Rao Vemuri, Department of Applied Science, University of California, Davis (U.S.A.).

CALL FOR PAPERS

Papers must be received by April 30, 1993. They will be reviewed by senior researchers in the field and the authors will be informed about the decisions at the end of the review process by June 30, 1993. Final versions of the accepted papers should be submitted by 30 July 1993. A recommended size for a paper would be between 4 and 10 pages. All accepted papers will be published in the conference proceedings, which will be available at the conference for distribution to all the regular conference registrants. As the conference is a multi-disciplinary meeting the papers are required to be comprehensible to a wider rather than to a very specialised audience. Papers will be presented at the conference either in an oral or in a poster session. Please submit three (3) copies (one camera-ready original and two copies) of the paper written in English on A4-format white paper with one inch margins on all four sides, in one-column format, single-spaced, in Times or similar font of 12 points, and printed on one side of the page only. Centred at the top of the first page should be the complete title, author(s), mailing and e-mailing addresses, following by an abstract, followed by the text.

TUTORIALS

During the first day of the conference the following 3-hour tutorials will be organized:

1. The basics of artificial neural networks.
2. The basics of fuzzy systems. Fuzzy systems applications.
3. Neural networks for problem solving.
4. Expert systems- tools and systems.

These aim at providing basic knowledge in the subject area. The tutorial fee is not included in

the conference fee. Tutorial materials will be distributed among the participants.

EXHIBITION

Companies and university research laboratories are encouraged to exhibit their developed or distributed software and hardware products. There will be an additional fee of NZ\$50 for exhibiting products at the conference.

STUDENTS SESSION

A postgraduate session will be organised. Postgraduate students are encouraged to submit papers to this session following the same formal requirements for paper submission. The submitted papers will be published in a separate brochure.

VIDEO TRACK

A video session will be organised which will allow participants to display up to 15 minute films. These should ideally cover applications of expert systems and neural networks to real problems in Commerce, Industry, Medicine, Agriculture, Government, Education, etc.

SPONSORSHIP

The initial sponsor of the ANNES'93 conference is the New Zealand Computer Society.

REGISTRATION

The registration fees to attend the conference are:

| | |
|-------------------------------------|-------------|
| Full time students | NZ\$ 75.00 |
| Academics, company representatives: | NZ\$300.00 |
| One tutorial: | NZ\$ 100.00 |
| A single day registration: | NZ\$ 150.00 |
| An exhibition fee | NZ\$50.00 |

A discount of 20% applies for advance registration which must be posted to the secretary before 30 July 1993. A discount of NZ\$50 applies to participants who will present their accepted papers either in the oral or in the poster session.

VENUE

The University of Otago, Dunedin, New Zealand.

ACCOMMODATION

Accommodation has been booked at St Margaret's College located right on the Campus and 10 minutes from downtown Dunedin. The college offers well equipped facilities including library, sports hall, music hall and computers with E-MAIL connection. Full board (NZ\$50) is available during the conference days as well as two days before or after the conference.

Accommodation will be also booked for a range of hotels in the city.

POSTCONFERENCE EVENTS

Following the conference, delegates may like to experience the delights of Queenstown and Central Otago. A variety of options are available with travel plans able to be coordinated by the Dunedin Visitors Centre (telephone +(3)4743300, Octagon, Dunedin, New Zealand). Further information will be provided in the second call for papers.

ANNES'93 CONFERENCE CONTACTS:

PROGRAM AND CONFERENCE CHAIR

Nikola Kasabov

Tel. +(3) 479 8319, Fax. +(3) 479 8311

email: nkasabov@otago.ac.nz

Department of Information Science, University of Otago, P.O.Box 56, Dunedin, New Zealand
(Conference program, papers, proceedings, tutorials, reviewing, invited talks)

CHAIR OF THE ORGANIZING COMMITTEE

Martin Anderson

Tel. +(3) 479 8315, Fax. +(3) 479 8311

email: manderson@otago.ac.nz

Department of Information Science, University of Otago, P.O. Box 56, Dunedin, New Zealand
(Sponsorship proposals, exhibition proposals, video track, business and industry contacts)

POSTGRADUATE STUDENT SESSION

Ms. Kitty Ko

Tel. +(3) 479 8153, Fax. +(3) 479 8311, email:

kittyko@otago.ac.nz Department of Information Science, University of Otago, P.O.Box 56, Dunedin, New Zealand

ADMINISTRATIVE SECRETARY:

Ms Gina Porteous

Tel.+(3) 479 8180, Fax. +(3) 479 8311,

email:gporteous@otago.ac.nz

Department of Information Science, University of Otago, P.O. Box 56, Dunedin, New Zealand
(Registration and all enquiries).

DEADLINES

30 April 1993 Submission of papers.

30 June 1993 Notification of acceptance.

30 July 1993 Early registration; final papers.

**ANNES'93 - The First New Zealand International Two-stream
Conference on Artificial Neural Networks and Expert Systems,
24-26 November 1993, University of Otago, Dunedin, New Zealand**

REPLY FORM

Please complete and send to the secretary on the following address:

Ms. Gina Porteous
Department of Information Science, University of Otago
P.O. Box 56, Dunedin, New Zealand
Tel. +(3) 479 8180, Fax. +(3) 479 8311, email: gporteous@otago.ac.nz

Name, First name:

University or company:

Mail address:

Fax: Phone: Email:

I intend to attend the conference:

I intend to submit a paper (If Yes, please give the provisional title:

Please send me the program when ready:

I intend to attend the tutorial(s): 1 ,2 ,3 ,4

I intend to exhibit a product (If Yes, please give details on a separate sheet)

I intend to display a video film (Give details on a separate sheet please)

I intend to attend the postgraduate student session:

I intend to submit a paper to the postgraduate session (Please give the provisional title):

Please send the ANNES'93 First Call for Papers and Participants to the colleagues of mine at the following addresses:

UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98195

Department of Electrical Engineering, FT-10
Telephone: (206) 543-6990 (office), 543-6061 (secretary),
543-2150 (main office), 776-8995 (home), 543-3842 (FAX).
marks@u.washington.edu

February 13, 1993

Michael P. Polis, Professor and Chair
Department of Electrical & Computer Engineering
Wayne State University
Detroit, MI 48202

Dear Dr. Polis,

I am delighted to provide this recommendation for Professor Mohamad Hassoun for a 1993-94 *Career Development Chair*.

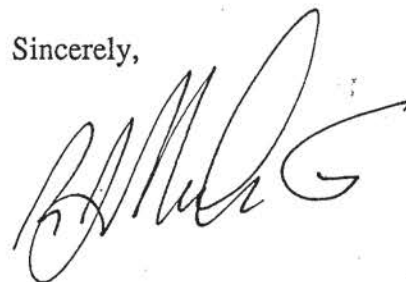
I first became acquainted with Prof. Hassoun after a talk I gave. He rose to his feet and boldly challenged a premise in my presentation. We talked afterwards concerning the point. Slowly, I became convinced that he was right and I was wrong. Needless to say, I was quite impressed (and, indeed, somewhat annoyed) by this man's sharpness.

Since that time, I have followed Mohamad's career in the literature. In the field of artificial neural networks, I find his grasp refreshing. He knows what the neural network will do and what it won't. This is refreshing in a field filled with hype. My feelings about his technical competence are reflected in my choice of Dr. Hassoun as *Book Review Editor* and *Associate Editor* for the *IEEE Transactions on Neural Networks*.

Dr. Hassoun has made some fundamental contributions in the area in terms of improving the performance of associative memory neural network paradigms and, more recently, has done some nice work on implementation of fuzzy systems. I am particularly impressed with his min-max VLSI inferencing system. It is an eloquent contribution that should find a good deal of application.

Mohamad Hassoun is a highly recognized name in the field of neural networks. Although I don't know the competition, I would find it difficult to fine a better qualified person for the *Career Development Chair*.

Sincerely,



Robert J. Marks II
Professor

Robert J. Marks II is a Professor in the Department of Electrical Engineering at the University of Washington, Seattle. Prof. Marks was awarded the *Outstanding Branch Councilor* award in 1982 by IEEE and, in 1984, was presented with an *IEEE Centennial Medal*. He was named a Distinguished Young Alumnus of *Rose-Hulman Institute of Technology* in 1992. Dr. Marks was Chair of *IEEE Neural Networks Committee* and was the co-founder and first Chair of the *IEEE Circuits & Systems Society Technical Committee on Neural Systems & Applications*. Prof. Marks served as the first President of the *IEEE Neural Networks Council* (1990-91) and, in 1992, was given the honorary title of *Charter President*. He was named an *IEEE Distinguished Lecturer* in 1992. Prof. Marks is a Fellow of the *Optical Society of America*. He was the co-founder and first President of the *Puget Sound Section of the Optical Society of America* and was elected that organization's first *Honorary Member*. He is co-founder and current President of *Multidimensional Systems Corporation* in Lynnwood, Washington. Prof. Marks is the Editor-in-Chief of the *IEEE Transactions on Neural Networks* (1992-present). He was the topical editor for *Optical Signal Processing and Image Science* for the *Journal of the Optical Society on America - A* (1989-91) and a member of the Editorial Board for *The International Journal of Neurocomputing* (1989-92). Dr. Marks served as *North American Liaison* for the 1991 Singapore *International Joint Conference on Neural Networks* (IJCNN), *International Chair* of the 1992 *RNNS/IEEE Symposium on Neuroinformatics and Neurocomputing* (Rostov-on-Don, USSR) and Organizational Chair for both the 1993 IEEE Virtual Reality Annual International Symposium (VRAIS) in Seattle and the *IEEE-SP International Symposium on Time-Frequency and Time-Scale Analysis* (Victoria, BC, 1992). He also served as the *Program and Tutorials Chair* for the *First International Forum on Applications of Neural Networks to Power Systems* (Seattle, 1991) and the General Chair of the *International Symposium on Circuits and Systems* (Seattle, 1995). Dr. Marks is the Vice-Chair for the first *IEEE World Congress on Computational Intelligence*, Orlando, July 1994. Five of his papers have been reproduced in volumes of collections of outstanding papers. He has two US patents in the field of artificial neural networks. Dr. Marks is the author of the book *Introduction to Shannon Sampling and Interpolation Theory* (Springer Verlag, 1991) and is editor of the companion volume, *Advanced Topics in Shannon Sampling and Interpolation Theory* (Springer Verlag, 1993). Dr. Marks is a co-founder of the *Christian Faculty Fellowship* at the University of Washington and serves as the faculty advisor to the University of Washington's chapter of *Campus Crusade for Christ*.



Wayne State University

January 25, 1993

Professor Robert J. Marks II
Department of Electrical Engineering, FT-10
University of Washington
Seattle, Washington 98195

Dear Professor Marks:

I am writing you in regard to Dr. Mohamad Hassoun, Associate Professor of Electrical and Computer Engineering at Wayne State University, who is being nominated for a Career Development Chair for 1993-1994. This Chair is an internal Wayne State University award which is explained in the attached memorandum.

The nomination must be accompanied by letters of support from individuals outside the University who are familiar with Dr. Hassoun's research. It would be of great value to us if you would be willing to comment on Dr. Hassoun's research accomplishments and provide your evaluation of his stature in relation to his contemporaries whose work may be familiar to you. Any further information you could provide relative to his instructional capabilities and professional service activities would also be most appreciated. If you should have had any association with his recent students, some opinion on their education reflecting both Professor Hassoun's research and teaching success would be of particular interest.

Since you have recently served as a referee for Mohamad's application for Tenure, hopefully it will not take too much time to modify your letter (I can send you a copy if you need it) to make it applicable for the Career Development Chair. For your convenience I am enclosing a copy of my nomination letter, a summary of his research accomplishments and interests, a copy of his Curriculum Vitae, and an envelope in which you can send your letter.

Please be assured that it is our policy to guarantee the confidentiality of your response within the limits of the law. Your help in this matter is deeply appreciated. I would be most grateful if you would send us your response within the next three weeks.

Both Mohamad and I thank you for your time and effort in serving as a referee.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Michael P. Polis".

Michael P. Polis
Professor and Chair

Enclosures

51
FAX ok
2/16

UNIVERSITY OF WASHINGTON
DEPARTMENT OF ELECTRICAL ENGINEERING FT-10
SEATTLE, WASHINGTON 98195 USA

FAX: (206) 543-3842
FAX Cover Sheet

ATTENTION: Sandy Pearlman Director, Editing, Design + Prod. Services
NAME OF FIRM: CRC Press
LOCATION: Boca Raton, FL 33431
FAX TELEPHONE NUMBER: (407) 994-3625
FROM: R J Marks PHONE: (206) 543-6990
This transmission, including this cover page, contains 3 pages
DATE: Feb 16, 1993 TIME: 10⁴⁰ am
Please call (206) 543-6061 if you do not receive all of the pages.

*Ruth,
Fax 2
pages following
to CRC
ASAP*

Sufficient conditions for uniform convergence are [Marks II, 1991]

- 1. the signal, $x(t)$, has finite energy, E ,

$$E = \int_{-\infty}^{\infty} |x(t)|^2 dt < \infty$$

- 2. or $X(\omega)$ has finite area,

$$A = \int_{-\infty}^{\infty} |X(\omega)| d\omega < \infty$$

Care must be taken in the second case, though, when singularities exist at $\omega = \pm 2\pi B$. Here, sampling may be required to be strictly greater than $2B$. Such is the case, for example, for the signal, $x(t) = \sin(2\pi Bt)$. Although the signal is bandlimited, and although its Fourier transform has finite area, all of the samples of $x(t)$ taken at $t = n/2B$ are zero. The cardinal series in Eq. (67.74) will thus interpolate to zero everywhere. If the sampling rate is a bit greater than $2B$, however, the samples are not zero and the cardinal series will uniformly converge to the proper answer.

The Time-Bandwidth Product

The cardinal series requires knowledge of an infinite number of samples. In practice, only a finite number of samples are required. If most of the energy of a signal exists in the interval $0 \leq t \leq T$, and we sample at the Nyquist rate of $2B$ samples per second, then a total of $S = (2BT)$ samples are taken. (θ denotes the largest number not exceeding θ .) The number S is a measure of the degrees of freedom of the signal and is referred to as its time-bandwidth product. A 5-min single-track audio recording requiring fidelity up to 20,000 Hz, for example, requires a minimum of $S = 2 \times 20,000 \times 5 \times 60 = 144$ million samples. In practice, audio sampling is performed well above the Nyquist rate.

(right)

(bold-ital)

$$S = 2 \times 20,000 \times 5 \times 60 = 12 \text{ million}$$

$$20 \frac{\text{cy}}{\text{sec}} \times 5 \text{ min} \times \frac{60 \text{ sec}}{\text{min}}$$

Change

Sources of Error

Exact interpolation using the cardinal series assumes that (1) the values of the samples are known exactly, (2) the sample locations are known exactly, and (3) an infinite number of terms are used in the series. Deviation from these requirements results in interpolation error due to (1) data noise, (2) jitter, and (3) truncation, respectively. The effect of data error on the restoration can be significant. Some innocently appearing sampling theorem generalizations, when subjected to performance analysis in the presence of data error, are revealed as ill-posed. In other words, a bounded error on the data can result in unbounded error on the restoration [Marks II, 1991].

Data Noise

The source of data noise can be the signal from which samples are taken, or from round-off error due to finite sampling precision. If the noise is additive and random, instead of the samples

$$x\left(\frac{n}{2B}\right)$$

we must deal with the samples

$$x\left(\frac{n}{2B}\right) + \epsilon\left(\frac{n}{2B}\right)$$

All references to Marks II should be, instead, # # to Marks.

Information Theory

67-39

- (a) **Interpolation.** The tails of a signal are known and we wish to restore the middle.
 (b) **Extrapolation.** We wish to generate the tails of a function with knowledge of the middle.
 (c) **Prediction.** A signal for $t > 0$ is to be estimated from knowledge of the signal for $t < 0$.

#(4x)

Final Remarks

Since its popularization in the late 1940s, the sampling theorem has been studied in depth. More than 1000 papers have been generated on the topic [Marks II, 1992]. Its understanding is fundamental in matching the largely continuous world to digital computation engines.

Defining Terms

- Aliasing:** A phenomenon that occurs when a signal is undersampled. High-frequency information about the signal is lost.
- Cardinal series:** The formula by which samples of a bandlimited signal are interpolated to form a continuous time signal.
- Fourier transform:** The mathematical operation that converts a time-domain signal into the frequency domain.
- Jitter:** A sample is temporally displaced by an unknown, usually small, interval.
- Kramer's generalization:** A sampling theory based on other than Fourier transforms and frequency.
- Lagrangian interpolation:** A classic interpolation procedure used in numerical analysis. The sampling theorem is a special case.
- Nyquist rate:** The minimum sampling rate that does not result in aliasing.
- Papoulis' generalization:** A sampling theory applicable to many cases wherein signal samples are obtained either nonuniformly and/or indirectly.
- Sampling rate:** The number of samples per second.
- Sampling theorem:** Samples of a bandlimited signal, if taken close enough together, exactly specify the continuous time signal from which the samples were taken.
- Signal bandwidth:** The maximum frequency component of a signal.
- Time bandwidth product:** The product of a signal's duration and bandwidth approximates the number of samples required to characterize the signal.
- Truncation error:** The error that occurs when a finite number of samples are used to interpolate a continuous time signal.

References

- E. Borel, "Sur l'interpolation," *C.R. Acad. Sci. Paris*, vol. 124, pp. 673-676, 1897.
- J. R. Higgins, "Five short stories about the cardinal series," *Bull. Am. Math. Soc.*, vol. 12, pp. 45-89, 1985.
- A. J. Jerri, "The Shannon sampling theorem—its various extension and applications: a tutorial review," *Proc. IEEE*, vol. 65, pp. 1565-1596, 1977.
- V. A. Kotelnikov, "On the transmission capacity of 'ether' and wire in electrocommunications," *Izd. Red. Upr. Svyazi RSKA* (Moscow), 1933.
- R. J. Marks II, *Introduction to Shannon Sampling and Interpolation Theory*, New York: Springer-Verlag, 1991.
- R. J. Marks II, Ed., *Advanced Topics in Shannon Sampling and Interpolation Theory*, New York: Springer-Verlag, 1993.
- E. A. Marvasti, *A Unified Approach to Zero-Crossing and Nonuniform Sampling*, Oak Park, Ill.: Nonuniform, 1987.

There are a number of references to Marks II, 1992, like here
All of them should be changed to Marks, 1993 (as listed here),
 Marks II, 1991 becomes Marks, 1991.



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FAX TRANSMITTAL

DATE: 2/9/93
TO: Prof. R. J. Marks
206 - 543-3842

FROM: Sandy Pearlman
Director, Editing, Design and Production Services

Attached is a corrected copy of your paper which is to appear in the *Electrical Engineering Handbook*. All corrections that you previously indicated, plus any identified by our proofreaders, have been made.

In an effort to ensure accuracy in this important publication, please review these finalized pages. Only essential factual corrections can be made at this time.

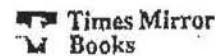
Please return to me via fax (at the number indicated above) only those pages requiring correction or advise by fax that no further corrections are necessary. In order to maintain our publication schedule, I need to hear from you within 48 hours.

If you need any additional information, please phone me at (407)998-2560 or at the number indicated above (ext. 2560).

Thank you for your prompt response and your participation in this project.

NOTE: This is page #1 of 8 pages being transmitted. If you have any difficulty with this transmission, please contact me at the telephone number shown above.

ESSENTIAL INFORMATION FOR PROFESSIONALS



UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98195

*Department of Electrical Engineering, FT-10
Telephone: (206) 543-2150
FAX: (206) 543-3842*

February 16, 1993

J. Cherniauský
Room 436
National Science Foundation
1800 G Street N. W.
Washington, D.C. 20277-2806

Dear Dr. Cherniauský:

I regret that my current commitments do not allow the time for me to perform a quality review of the proposal entitled Computer-Aided Opto-Electronic Inspection for Manufacturing which you recently sent to me. Therefore, I am returning the copy of the proposal with this letter.

Sincerely,

Robert J. Marks II
Professor

Enclosure

1993 IEEE Neural Networks Council Document
Robert J. Marks II Library Archive
NATIONAL SCIENCE FOUNDATION
1800 G Street, N.W. • Washington, DC 20550

February 03, 1993

Dr. Robert J. Marks
Department of Electrical
Engineering
University of Washington
Seattle, WA 98105

Ref: CDA-9216242
Y. Fainman
U of Cal San Diego

Dear Dr. Marks:

The quality of the National Science Foundation's awards for research projects depends greatly on the critical judgments of expert reviewers. I hope you will help us to evaluate the research proposed in the enclosed material.

All comments you care to make are welcome. I am especially interested in your appraisals of (1) the scientific quality and importance of the research; (2) the capability of the applicant(s), based on recent accomplishments, to make an original and creative contribution in the scientific area represented by the proposal; and (3) the quality of research accomplished on prior year grant(s) if the applicant(s) has had recent NSF support.

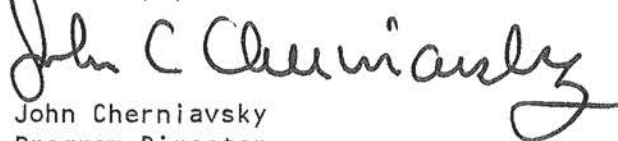
"Information for Reviewers of Proposals" (located on the back of the Proposal Evaluation Form, NSF Form 1), explains evaluation criteria and provides guidance to avoid conflict of interests and to protect confidentiality.

No single review by itself determines the decision to deny or offer support. Rather we depend on a collection of reviews to understand the strengths and weaknesses of the planned research. Your thoughtful evaluation, even in cases where the topic may not be your specialty, will be very helpful because we need to assess the significance of this research on related areas of research.

Your comments will be most helpful if you are able to mail them within four weeks of the receipt of this request. If a brief delay in responding is necessary, I would rather receive your review later than not at all. But, if you cannot review a proposal, or if your review is likely to be long-delayed, please notify me promptly and destroy the proposal. In that event I would especially appreciate suggestions of other potential reviewers. A return envelope for convenience in replying is enclosed.

Thank you for assisting the National Science Foundation.

Sincerely yours,



John Cherniavsky
Program Director
CISE Institutional Infrastructure

UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98195

Department of Electrical Engineering, FT-10
Telephone: (206) 543-6990 (office), 543-6061 (secretary),
543-2150 (main office), 776-8995 (home), 543-3842 (FAX).
marks@u.washington.edu

February 20, 1993

Professor David Patterson
Chair for Computer Science
EECS Department
University of California
Berkeley, CA 94720

Dear Dr. Patterson,


David Fogel has asked me to write a letter of recommendation in regard to a possible tenure track position in your department. I have met Dr. Fogel only once, but am familiar with his technical contributions and reputation.

There is little argument that, in terms of both technical contribution and promotion, David Fogel is one of the top two or three researchers in the field of evolutionary programming. The field, founded by his father a few decades ago, has experienced a recent resurgence of popularity. Recently, the *Evolutionary Programming Society* formed around the discipline. The *IEEE Neural Networks Council* will be sponsoring a *Conference on Evolutionary Programming* at the *World Congress on Computational Intelligence* next summer in Orlando. Much of this popularity is due to the promotion and contributions of Dr. Fogel. When a decision was made to have a special issue of the *IEEE Transactions on Neural Networks* devoted to evolutionary programming, there was no doubt that David Fogel was the top choice†.

Working in the shadow of his father, there arises the natural question of David Fogel's degree of contribution to the field. The simple answer is - quite a bit. His applications of evolutionary programming to problems in combinatorial optimization have shown the method superior to neural networks approaches. He has also taken the challenge of defining the differences between evolutionary programming and genetic algorithms and exploring their differences in performance. His dissertation, slightly modified, is under consideration for publication by *IEEE Press*.

David Fogel's vitae is quite impressive. Except for lack of a teaching record, it would here come close to that required for promotion to Associate Professor. Dr. Fogel is an impressive young man. He will make a superb addition to your faculty.

Sincerely,



Robert J. Marks II
Professor

† I am the Editor-in-Chief

UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98195

Department of Electrical Engineering, FT-10
Telephone: (206) 543-2150
FAX: (206) 543-3842

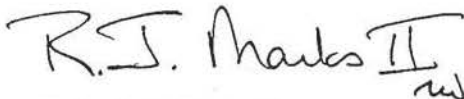
February 8, 1993

Mrs. Marjorie Duncan
3116 Huntington Road
Shaker Heights, Ohio 44120

Dear Mrs. Duncan:

Enclosed is a check for \$19.50 to cover the cost and shipping charges for two Slide-A-Rule for meetings. Please send them to me at the above address. Thanks you.

Sincerely,

Handwritten signature of Robert J. Marks II in cursive script, with a small flourish at the end.

Robert J. Marks II
Professor

Enclosure - check

Mail for Ruth Wagner

1

Fri, 12 Mar 93 11:14:02 -0800

From marks@u.washington.edu Fri Mar 12 11:15:29 1993
From: Robert Marks <marks@u.washington.edu>
To: d43131a@nucc.cc.nagoya-u.ac.jp, marks@u.washington.edu
Cc: wagner@essex.ce.washington.edu
Subject: Re: ICNN Reception
Date: Fri, 12 Mar 93 11:14:02 -0800

From d43131a@nucc.cc.nagoya-u.ac.jp Fri Mar 12 01:11:29 1993
Received: from bashful.u.washington.edu by carson.u.washington.edu
(5.65/UW-NDC Revision: 2.22) id AA02598; Fri, 12 Mar 93 01:11:2
8 -0800
Received: from nucc.cc.nagoya-u.ac.jp by bashful.u.washington.edu
(5.65/UW-NDC Revision: 2.22) id AA13186; Fri, 12 Mar 93 01:11:1
9 -0800
Received: from [133.6.97.64] by nucc.cc.nagoya-u.ac.jp (5.67+1.6W/6.4J.6
)
id AA28208; Fri, 12 Mar 93 18:11:00 JST
Date: Fri, 12 Mar 93 18:11:00 JST
Return-Path: <d43131a@nucc.cc.nagoya-u.ac.jp>
Message-Id: <9303120911.AA28208@nucc.cc.nagoya-u.ac.jp>
To: Robert Marks <marks@u.washington.edu>
From: d43131a@nucc.cc.nagoya-u.ac.jp
Subject: Re: ICNN Reception
Status: O

Dear Bob:

of
al
Thank you for your invitation to the reception for the Associate Editors
the IEEE Transactions on Fuzzy Systems and the IEEE Transactions on Neur
al
Networks. I will attend.

at
By the way, while you are in Tokyo in March, I would like to invite you
my house in Tokyo at 19:00 on March 24 (Wednesday). I will invite a few
more people. Could you confirm if you can accept my invitation or not?

5PM
Wed

1
Beside this, I would like to know your whole schedule in Japan with hote
name list. Could you let me know about them, in case of emergency?

Thank you for your attention.

With my best wishes,

Prof. Toshio Fukuda

TF/md

>A reception for the Associate Editors of the
>
> IEEE Transactions on Fuzzy Systems and the
> IEEE Transactions on Neural Networks
>
>will be held at 12:30 PM, March 31, 1993 at the ICNN/FUZZ-IEEE meeting
>in San Francisco. There will be a light lunch served in the Vanness
>Room at the Hilton (the conference hotel)

Re: ICNN Reception

Course B : March 23, One day Tour
9:00AM~4:00PM

Memo

You will visit Boyodai, Hakucho Golf Course, Cape Chikumisaki, Irie Park, Tenkaen Garden, Noboribetsu Bridge, and Noboribetsu-Date Edo Era Village.

Resistration fee is ¥13,000.

Course C : March 24-25, Two Day Tour

You will take a trip to Otaru City and Sapporo City. You will visit Kitaichi Glass Firm, Orgol House and Otaru Canal in Otaru and Sapporo Beer Garden, Tokeidai, TV Tower in Sapporo.

Registration fee is ¥33,000.

The optional Tours are detailed in "Hotel and Optional Information". Those interested in participating should indicate as such on the application form and send it to JTB Hokkaido Muroran Office.

Climate

It will be chilly during the days of the workshop in Muroran. The temperature will be 0°C to 5°C, so you are recommended to bring a coat.

FURTHER INFORMATION AND INQUIRIES

Professor Yasuhiko Dote
General Chairperson
Muroran Institute of Technology
27-1 Mizumoto-cho, Muroran
050 JAPAN
Telephone: +81-143-44-4181
Telefax: +81-143-47-3374
Email# : F13349@JPNKUDPC. BITNET

052-781
9243

file

UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98195

*Department of Electrical Engineering, FT-10
Telephone: (206) 543-6990 (office), 543-6061 (secretary),
543-2150 (main office), 776-8995 (home), 543-3842 (FAX).
marks@u.washington.edu*

May 21, 1993

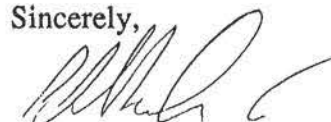
Gadi Kaplan, Senior Technical Editor
IEEE Spectrum
IEEE
345 East 47th Street
NY, NY 10017-2394

Dear Gadi,

Attached is my review of Hammerstrom's paper.

I request that Dr. Hammerstrom not be made aware of my identity.

Sincerely,



Robert J. Marks II
Professor

Comments of 'Using neural network technology' by Dan Hammerstrom.

This is a superb introductory paper by a distinguished researcher in NN's. It needs, though, a bit of polish. Here are some detailed suggestions.

p1. The term 'neural network' as used first specifically refers to the *multi layered perceptron* NN. The novice reader may infer from the first part of the paper that this is the NN.

p1. par.3. Omit 'in it' in first sentence.

p.2 par.2. The comparison of NN's with programming is unfair. The implication is that writing a program and using a NN are options presented by a specific solution to a problem. They are quite different. A program requires a totally different solution algorithm than does a NN.

p.3. par.last. I submit that *complex linear* problems are best solved using linear techniques. The sentence, I believe, is inaccurate. The use of the word 'can' implies certainty.

p.3. par.last. insert 'can be' before 'difficult.'

p.4. par.2. after 'the only NN algorithm', insert 'for training multi layered perceptrons'. There is a muddy partitioning, here, of comparing training algorithms for the MLP such as {BP, conjugate gradient descent, random search} and NN algorithms such as {counter propagation, ART, neocognitron}.

p.5. I suggest introducing commonly used NN terms when the concept is introduced. The 'S' curve is, for example, called a sigmoid or squashing function. Why not call it what most practicing neural practitioners call it?

p.6. par.1. If I were a novice, I would be confused by the first sentence - the one that starts with 'Next, the...' Without some math, explanation of this sort is somewhat opaque.

p.7. par.last. Again - call it what most practitioners do - a 'recurrent' NN.

p.8. par starting with 'In theory...'. Whoaaa! This first sentence is overstated. The computer and NN overlap, but not, as implied here, completely. Can a NN do a spreadsheet? Can you send e-mail with it? Can it do word processing? This first sentence need to be toned down.

p. 10, par.2. after 'a sufficient sample' add 'of representative data'.

p. 10. par.last. Traditionally, this is true. Recent interpretation of NN's from a fuzzy inference system point of view, however, allow analysis of the NN as fuzzy rules. There are some papers about this in the FUZZ-IEEE Proceedings in the last two years, in the first issue of the IEEE Transactions on Fuzzy Systems and in the special issue of the IEEE Transactions on Neural Networks (Sept 92) on Fuzzy Systems.

p.13. par.1. Change 't he' to 'the'.

p.16. par.1. To 'skewed' and 'small' add 'noisy'. Memorizing noisy data can have disastrous effects on generalization.

p.18. The sentence 'A NN. After...'. This must be a typo. This, by the way, is an excellent section.

p.24. ... is blank! It seems, though, nothing was left out.

p. 27. If national societies are to be listed, I strongly suggest including the following.

Dr. Yianni Attikiouzel, President
Australian Neural Networks Society
The University of Western Australia
Dept. of Electrical and Electronic Engineering
Nedlands, Perth, Western Australia 6009
FAX (09) 380,1065
yianna@swanee.uwa.oz
(09) 380

Professor Witall L. Dunin-Barkowski, President
Russian Neural Network Society
A.B. Kogan Research Institute for Neurocybernetics
Rostov State University
194/1 Stachka Ave
Rostov-on-Don 344104
Russia
(8632) 280577
telex: 123228 TEMR
FAX (8632) 244311
wldb@krinc.rostov-na-donu.su

Dr. You-Shou Wu, President
Chinese Neural Networks Council
State Education Commission
Beijing 100816, CHINA

Each has significant professional membership. Russia and China have co-sponsored conferences with the IEEE Neural Networks Council (NNC) in 1992 and Australia will co-sponsor and host the 1995 IEEE ICNN with the NNC.

For those interested in REGIONAL neural networks activities, the IEEE NNC has a number of Regional Interest Groups (RIGS). They are listed on the back cover of the IEEE Transactions on Neural Networks. I attach a copy. This is a great way for the reader to learn more about NN's. Rick Alan, the RIGs chair, may have some additional listings.

p.28. p2. 'Council on Neural Networks' should be 'Neural Networks Council'. That is the way it is listed on all of the conferences and publications.

p.28. Side bar. I again suggest saying the BP is the most popular method for training the most popular NN. '(BP is the) most popular NN algorithm', I submit, confuses the neural network architecture with the manner that is trained.

p.32. Cannot we train a RBF network using BP? Saying that they are different is confusing and, I believe, incorrect.

p.25. Definition of BP: same comment as before.

p.25. Input layer definition. Does a multilayer perceptron with one hidden layer have two or three layers? It depends on whether you call the input a 'layer'. There is still controversy in the

community about this. Curiously, by the definition of a 'layer' given here, the 'input layer' is not a layer. There are no connected 'inputs'. What about the output layer?

p.25. As a result of the concerns with definitions, I would suggest checking this section with the Chair of the Standards Committee of the IEEE Neural Networks Council. The committee is working on a NN glossary. The contact is

Walter Karplus, Chair
IEEE NNC Standards Committee
3732 Boelter Hall
UCLA
Los Angeles, California 90024
(213) 825-2929 ac310
FAX (213) 825-2273
karplus@cs.ucla.edu



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Vice President

PATRICK K. SIMPSON
ORINCON Corp.
9363 Towne Centre Dr.
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Secretary

TOSHIO FUKUDA
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Nagoya, 464-01 Japan

Treasurer

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821 Electrical Engineering
P.O. Box 6101
Morgantown, WV 26506

Committee Chairs

Awards Committee

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Dept. Electrical Engineering
Princeton University
Princeton, NJ 08544

Distinguished Lecturer Program

DONALD C. WUNSCH II
Texas Tech University
Dept. Electrical Engineering
Lubbock, TX 79409-3102

Fellows Committee

ROBERT W. NEWCOMB
Microsystems Laboratory
Electrical Engineering Dept.
University of Maryland
College Park, MD 20742

IEEE Committee on Man & Radiation

J. PATRICK REILLY, NNC Liaison
Applied Physics Laboratory
Johns Hopkins University
Johns Hopkins Road
Laurel, MD 20723-6099

Meetings Committee

JAMES C. BEZDEK
University of West Florida
Computer Science
11000 University Parkway
Pensacola, FL 32514-5750

Nominating Committee

ROBERT J. MARKS II
University of Washington
Dept. Electrical Engineering, FT-10
Seattle, WA 98195

Publications Committee

STAMATIOS V. KARTALOPOULOS
AT&T Bell Laboratories
101 Crawfords Corner Road
Holmdel, NJ 07733

Regional Interest Group Committee

RICK ALAN
4051 N. Higley Rd.
P.O. Box 6129
Mesa, AZ 85216

Regional Interest Group Committee

RICK ALAN
TRW Safety Systems
4051 North Higley Road
Mesa, AZ 85205

Standards Committee

WALTER KARPLUS
3732 Boelter Hall
UCLA
Los Angeles, CA 90024

Video Tutorials Committee

MOHAMED A. EL-SHARKAWI
Dept. Electrical Engineering
University of Washington, FT-10
Seattle, WA 98195

Virtual Reality Technology Committee

THOMAS P. CAUDELL
Boeing Computer Services
P.O. Box 24346, MS 7L-22
Seattle, WA 98124-0346

IEEE NNC Regional Interest Groups

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Phoenix, AZ
70324.1625@compuserve.com

YIANNI ATTIKIOUZEL
The University of Western Australia
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yianni@swanee.ce.uwa.edu.au

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Science and Technology
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ALBERTO PRIETO
Universidad de Granada, Granada
Spain
aprieto@ugr.es

Editors

Transactions on Fuzzy Systems

JAMES C. BEZDEK
University of West Florida
Computer Science
11000 University Parkway
Pensacola, FL 32514-5750

Newsletter

WESLEY E. SNYDER
Department of Radiology
Bowman Gray School of Medicine
300 S. Hawthorne
Winston-Salem, NC 27103

Transactions on Neural Networks

ROBERT J. MARKS II
University of Washington
Department of Electrical Engineering
c/o 1131 199th St. S.W., Suite N
Lynnwood, WA 98036-7138

IEEE Neural Networks Council Members
(Date indicates year of joining Council.)

Circuits and Systems, 1989

ROBERT W. NEWCOMB
University of Maryland
College Park, MD

Engineering in Medicine and Biology, 1989

CHARLES J. ROBINSON
University of Pittsburgh
Pittsburgh, PA 15261

Information Theory, 1989

ANTHONY KUH
University of Hawaii
Honolulu, HI

Robotics and Automation, 1989

THOMAS MILLER
University of New Hampshire
Durham, NH

Edgar Sanchez-Sinencio, 1989

EDGAR SANCHEZ-SINENCIO
Texas A&M University
College Station, TX

Shiro Usui, 1989

SHIRO USUI
Toyohashi Univ. Technol.
Toyohashi, Japan

Terrance L. Fine, 1989

TERRANCE L. FINE
Cornell University
Ithaca, NY

Wesley E. Snyder, 1989

WESLEY E. SNYDER
Bowman Gray Sch. Medicine
Winston-Salem, NC

Communications, 1989

KESH BAKHRU
Cubic Corporation
San Diego, CA

Industrial Electronics, 1989

EVANGELIA MICHELI-TZANAKOU
Rutgers University
Piscataway, NJ

Lasers and Electro-Optics, 1989

TIEN-HSIN CHAO
Jet Propulsion Lab.
Pasadena, CA

Signal Processing, 1989

RICHARD P. LIPPMANN
MIT Lincoln Laboratory
Lexington, MA

Stamatios V. Kartalopoulos, 1989

STAMATIOS V. KARTALOPOULOS
AT&T Bell Laboratories
Holmdel, NJ

H. Troy Nagle, 1989

H. TROY NAGLE
North Carolina State University
Raleigh, NC

Nabil H. Farhat, 1989

NABIL H. FARHAT
University of Pennsylvania
Philadelphia, PA

Les E. Atlas, 1989

LES E. ATLAS
University of Washington
Seattle, WA

Computer Society, 1992

BENJAMIN WAH
University of Illinois
Urbana-Champaign, IL

Industry Applications, 1990

BIMAL K. BOSE
University of Tennessee
Knoxville, TN

Oceanic Engineering, 1990

RICHARD TRUEBLOOD
ORINCON Corp.
San Diego, CA

Social Implications of Technology, 1993

DONALD C. WUNSCH II, PH.D.
Texas Tech University
Lubbock, TX

Oscar N. Garcia, 1989

OSCAR N. GARCIA
The George Washington University
Washington, DC

George E. Cook, 1989

GEORGE E. COOK
Vanderbilt University
Nashville, TN

Karen Haines, 1989

KAREN HAINES
ORINCON Corp.
San Diego, CA

Rick Alan, 1989

RICK ALAN
TRW Safety Systems
Mesa, AZ

Control Systems, 1989

BRADLEY DICKINSON
Princeton University
Princeton, NJ

Power Engineering Society, 1992

ROBERT FISCHL
Drexel University
Philadelphia, PA

Systems, Man, and Cybernetics, 1989

DON E. BROWN
University of Virginia
Charlottesville, VA

Herbert E. Rauch, 1989

HERBERT E. RAUCH
Lockheed
Palo Alto, CA

Mohamed El-Sharkawi, 1989

MOHAMED EL-SHARKAWI
University of Washington
Seattle, WA

James M. Tien, 1989

JAMES M. TIEN
Rensselaer Polytech. Inst.
Troy, NY

IEEE
SPECTRUM

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC. 345 EAST 47TH STREET, NY, NY 10017-2394 (212) 705-7555 FAX (212) 705-7453
May 18, 1993

Mr. Robert J. Marks II
Editor in Chief
IEEE Trans. on Neural Nets
1131 199th St., S.W.
Lynnwood, WA 98063

Dear Mr. Marks:

Thank you very much for agreeing to review the article "Using neural network technology," by Dan Hammerstrom. Your willingness to do so is greatly appreciated.

We'd appreciate specific comments as outlined on the attached review form. Please do not concern yourself with grammar, spelling, etc. Our routine editing process will correct such errors.

Your review, along with that of at least three other reviewers will be used as guidance for the author and/or the editor. Comments concerning technical matters and organization are compared with those of other reviewers and a unified recommendation made to the author. Although we'll consider all reviewer's suggestions, not all suggestions will necessarily be honored in the process of manuscript revision.

Because IEEE is a transnational organization, authors and reviewers are encouraged to consider the international aspects of the subject matter. A narrow viewpoint or a nationalistic bias is discouraged.

Occasionally we may publish an article containing points with which a reviewer takes issue. In such cases, we may append a box entitled "Commentary" including statements from reviewers amending or disagreeing with certain aspects of the published article. These comments will not be attributed to the reviewer(s) unless permission to do so has been granted.

Please note that the attached review forms contain a rating scale for the manuscript. We would appreciate your using it in addition to making specific comments about the manuscript, but it is not mandatory. Annotation of the manuscript is encouraged.

Many reviewers have told us that they do not mind if authors know who they are but others have said they prefer to remain anonymous. Please check the appropriate box on the review form to make your wishes in this regard known to us.

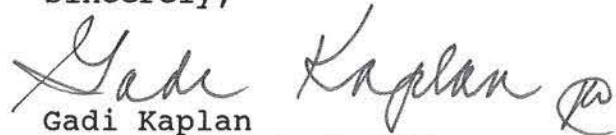


- 2 -

Our thanks in advance for your time and effort in conducting this review. Time does not always permit "closing the loop" to our reviewers to explain, for example, why certain recommendations were not acted upon.

SPECTRUM's policy is to protect the identity of its reviewers. Occasionally, however, a reviewer wishes to discuss his recommendations directly with the author, and this is certainly permissible.

Sincerely,

A handwritten signature in cursive script that reads "Gadi Kaplan" followed by a small circular flourish.

Gadi Kaplan
Senior Technical Editor
212-705-7573

GK/rh
enclosures

file

**UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98195**

*Department of Electrical Engineering, FT-10
Telephone: (206) 543-2150
FAX: (206) 543-3842*

April 28, 1993

Prof. R. J. Marks II
Department of Electrical Engineering
University of Washington
Seattle, WA 98195

Dear Prof. Marks

I regret to inform that I am going to leave the Research Associate position in the Department of Electrical Engineering on May 1, 1993. I will miss the time we spend together.

Sincerely



Seho Oh

file

CSDL FAX TRANSMISSION

Commercial Fax Number (617) 258-2555

DATE: 3-24-93 TOTAL PAGES: LEAD + 7 = 8

TO: Robert Marks

FAX NUMBER: 206-543-3842

VOICE EXTENSION: -6990

FROM: Jay Farrell

VOICE EXTENSION: 617-258-2420

COMMENTS: Thank you for your help.
Expect a call from U.of California
at Riverside this week.

Jay Farrell



August, 1992

JAY ALLEN FARRELL
The Charles Stark Draper Laboratory, Inc.
555 Technology Square, Cambridge, MA 02139

HOME ADDRESS 194 Boston Street, North Andover, MA 02139
Home: (508) 691- 5936 Work: (617) 258-2420 e-mail: farrell@draper.com

EMPLOYMENT CHARLES STARK DRAPER LABORATORY June 1989 - Present
Senior Member of Technical Staff
Planning, Situation Assessment, and Control for Autonomous Vehicles
Principal Investigator IR&D: supervising two staff members and two Ph.D students.
This research combines robust estimation and control, adaptive and learning control, and artificial intelligence techniques to develop the perception, reasoning, and actuation capabilities required to support reliable, extended autonomous vehicle operation.

Connectionist Learning Control Systems
Principal Investigator of NSF Contract: supervising one Ph.D. student;
Co-principal Investigator IR&D: graduated one Master's student in May, 1992.
This research is developing the theory for and demonstrating applications of learning control systems as a method to accommodate modeling uncertainty in nonlinear dynamic systems. Ongoing research is developing improved learning algorithms, alternative function approximation networks, and new learning control architectures.

Charles Stark Draper Laboratory Recognition Award
For outstanding performance and achievement (May 1991).

Engineering Vice Presidents Annual Award for Best Technical Publication: 1990
"Connectionist Learning Systems for Control," *SPIE OE/Boston '90*.

EDUCATION UNIVERSITY OF NOTRE DAME Notre Dame, IN 46556
Doctor of Philosophy, Electrical Engineering May 1989
Dissertation Title: "Analysis and Synthesis Procedures for Two Classes of Nonlinear Dynamical Systems: Digital Controllers and Neural Networks"
Dissertation and Research Adviser: Anthony N. Michel
Major Area: Systems and Applied Mathematics
Minor Area: Mathematics
Master of Science, Electrical Engineering December 1987
GPA 3.96/4.00 Notre Dame Cumulative

IOWA STATE UNIVERSITY Ames, IA 50010
Bachelor of Science, Electrical Engineering May 1986
Degree Conferred With Distinction
Bachelor of Science, Physics May 1986
Degree Conferred With Distinction
GPA 3.81/4.00 Iowa State Cumulative

RESEARCH INTERESTS
Intelligent control for autonomous systems (Adaptive and learning control, robust fault accommodation, hierarchical and distributed control systems); Nonlinear dynamical systems (analysis, modeling, and synthesis techniques); Stochastic systems (decision and estimation theory, system identification)

TEACHING INTERESTS
Undergraduate: circuits, linear systems, control, signal processing, fields
Graduate: adaptive control, digital control, or multivariable control, signal processing, stochastic processes, linear or nonlinear systems, estimation and decision theory

STUDENTS GRADUATED

Torsten Berger, Master of Science, Department of Mechanical Engineering, MIT, (with Dr. Annaswamy),
Control of Unmanned Underwater Vehicles Using Spatially Localized Learning Methods, June 1992.

Bernd Clauberg, Master of Science, Department of Electrical Engineering, MIT, (with Dr. Dahleh),
Adaptive Control of a Small Autonomous Underwater Vehicle, July 1991.

PROFESSIONAL ACTIVITIES

| | |
|--|----------------|
| Associate Editor, <i>IEEE Transactions on Neural Networks</i> | 1991 - Present |
| Core-program committee, <i>IEEE Conference on Control Applications</i> | 1991 - 1992 |
| Program Committee, <i>IEEE International Conference on Neural Networks</i> | 1992 - 1993 |
| Registration Chairman, <i>International Symposium on Intelligent Control</i> | 1992 - 1993 |
| Review Panel, <i>National Science Foundation</i> | 1992 |
| Review Panel, <i>DARPA</i> | 1992 |
| Reviewer <i>IEEE Transactions on Automatic Control</i> | 1989 - Present |
| Reviewer <i>IEEE Transactions on Circuits and Systems</i> | 1988 - Present |
| Reviewer <i>IEEE Transactions on Neural Networks</i> | 1990 - Present |
| Reviewer <i>Information and Decision Technologies</i> | 1989 - Present |
| Reviewer <i>AIAA Guidance, Navigation and Control Conference</i> | 1990 - Present |

FELLOWSHIPS AND SCHOLARSHIPS

| | |
|--|------------------------|
| Notre Dame Center for Applied Mathematics Fellowship | June 1988 - May 1989 |
| Honeywell Foundation Scholarship | August 1985 - May 1986 |
| NCR Award of Excellence | August 1984 - May 1985 |
| Iowa State University Recognition Award | August 1982 - May 1983 |

HONORARY SOCIETIES

| | | |
|-----------------|-----------------------------------|-------------------|
| Phi Beta Kappa, | Sciences and Humanities Honorary, | Initiated in 1985 |
| Phi Kappa Phi, | All University Honorary, | Initiated in 1984 |
| Pi Mu Epsilon, | Mathematics Honorary, | Initiated in 1983 |
| Eta Kappa Nu, | Electrical Engineering Honorary, | Initiated in 1983 |

STUDENT RESEARCH AND TEACHING EXPERIENCE

Research Assistant, University of Notre Dame, August 1986 - May 1988
Investigated the qualitative stability properties of dynamical systems. Research topics included design and analysis techniques for neural networks with feedback interconnections, and quantization effects in digital control systems.
Supporting Agency: National Science Foundation.

Undergraduate Assistant, Iowa State University, August 1983 - January 1986
Taught first and second year calculus skills to students.
Supporting Agency: Iowa State Mathematics Department.

INTERNSHIP EXPERIENCE

Amoco Research Center Naperville Rd., Naperville, IL May - August 1986
Summer Internship- Designed and performed laboratory experiments using ultra-fast laser pulses to process semiconductor materials.

Tellabs Incorporated 4951 Indiana Ave., Lisle, IL May - August 1985
National Engineering Consortium Internship- Designed and developed phase-locked loop circuits for use in digital telecommunication switching systems.

J. A. Farrell

August, 1992

CAMPUS ACTIVITIES

Graduate Student Union

- Department Representative
- Intellectual Life Committee Chairmen

May 1988 - January 1989
 May 1988 - January 1989

Pi Mu Epsilon (Mathematics Honorary)

- President
- Treasurer

May 1985 - May 1986
 May 1984 - May 1985

Pi Kappa Phi (Social Fraternity)

- House Manager
- Scholarship Chairman

April 1983 - May 1984
 May 1984 - May 1985

RESEARCH FUNDING

Title: Learning Augmented Flight Control for High Performance Aircraft
 Source: Naval Air Development Center
 Period of Performance: August 1991 to July 1992

Title: Connectionist Learning Control Systems
 Source: National Science Foundation
 Period of Performance: August 1990 to July 1992

Title: Connectionist Systems and Learning Control
 Source: The Charles Stark Draper Laboratory, Inc.
 Period of Performance: August 1990 to July 1993 (Three one year contracts)

Title: Intelligent Control and Vehicle Assessment for Autonomous Systems
 Source: The Charles Stark Draper Laboratory, Inc.
 Period of Performance: August 1990 to July 1993 (Three one year contracts)

J. A. Farrell

August, 1992

PRIMARY REFERENCES

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University of Washington
Department of Electrical Engineering
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The Turing Institute
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Scotland, UK

Dr. Steve Yurkovich
Associate Professor of
Electrical Engineering
The Ohio State University
(on sabbatical at)
Department of Electrical Engineering
Fitzpatrick Hall of Engineering
University of Notre Dame
Notre Dame, IN 46556
(219) 239-8631

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Adjunct Assistant Professor at
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3702 N. Main, Bldg. 2
Mishawaka, Indiana 46545
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416 Dreese Laboratory
2015 Neil Avenue
Columbus, OH 43210-1272
(614) 292-5716

Dr. Jennie Si
Assistant Professor of
Electrical Engineering
Arizona State University
Tempe, AZ 85287-5706
(602) 965-6133

December, 1992

PUBLICATIONS

DISSERTATION

Farrell, J., Analysis and Synthesis Procedures for Two Classes of Nonlinear Dynamical Systems: Digital Controllers and Neural Networks, Ph.D, Dissertation, Dept. of Electrical and Computer Engineering, University of Notre Dame, May 1989.

JOURNAL PUBLICATIONS

- Farrell, J., and M. Livstone, "Exact Calculation of Discrete-Time Process Noise Statistics for Hybrid Continuous/Discrete Time Applications," *IEEE Transactions on Automatic Control*, submitted Dec. 1992.
- Farrell, J. and B. Clauberg, "Issues in the Implementation of an Indirect Adaptive Control System" accepted subject to minor revision by the *IEEE Transactions on Oceanic Engineering*, resubmitted Oct 1992.
- Farrell, J., T. Berger, and B. Appleby, "Detection and Accommodation of Unanticipated Faults via Learning Techniques," (Invited Paper), *IEEE Control Systems Magazine: Special Issue on Intelligent Control*, to appear in June 1993.
- Michel, A., J. Farrell and Hung-Fa Sun, "Analysis and Synthesis Techniques for Hopfield Type Synchronous Discrete Time Neural Networks with Application to Associative Memory," *IEEE Transactions on Circuits and Systems*, Vol. 37, No. 11, November 1990.
- Farrell, J., and A. Michel, "A Synthesis Procedure for Hopfield's Continuous Time Content Addressable Memory," *IEEE Transactions on Circuits and Systems*, Vol. 37, No. 7, July 1990.
- Michel, A., J. Farrell, "Associative Memories via Artificial Neural Networks," *IEEE Control Systems Magazine*, Volume 10, No. 3, April 1990.
- Farrell, J., and A. Michel, "Estimates of Asymptotic Trajectory Bounds in Digital Implementations of Linear Feedback Control Systems," *IEEE Transactions on Automatic Control*, Vol. 34, No. 12, December 1989.
- Miller, R., A. Michel, and J. Farrell, "Quantization Effects on Reference Input Following," *IEEE Transactions on Automatic Control*, vol. 34, no. 4, April 1989.
- Michel, A., J. Farrell, and W. Porod, "Qualitative Theory of Neural Networks," *IEEE Transactions on Circuits and Systems*, vol. 36, no. 2, February 1989.

BOOK CHAPTERS

- Farrell, J., and W. Baker, "Learning Control Systems," in *An Introduction to Intelligent and Autonomous Control*, P. Antsaklis and K. Passino, eds., Kluwer Academic Publishers, 1992.
- Baker, W., and J. Farrell, "An Introduction to Connectionist Learning Control Systems," *Handbook of Intelligent Control: Neural Network, Fuzzy Logic, and Adaptive Implementations*, D. White and D. Sofge, eds., Van Nostrand Reinhold, 1992.
- Michel, A., J. Farrell, and W. Porod, "Qualitative Analysis of Neural Networks," in *Analysis and Control of Nonlinear Systems*, C. I. Byrnes, C. F. Martin, and R. E. Sacks Editors, North-Holland: Amsterdam, 1988, pp. 349-358.
- Michel, A., J. Farrell, and W. Porod, "Stability Results for Neural Networks," in *Neural Information Processing Systems*, Dana Z. Anderson Editor, American Institute of Physics, New York, 1988, pp. 554-563.

TUTORIALS AND INVITED LECTURES

- Farrell, J. and W. Baker, "Learning Control Systems," Guest Lecture – Machine Learning Class. Northeastern University (Instructor: Mieczyslaw M. Kokar), December 3, 1992.
- Farrell, J. and W. Baker, "Neural Networks and Learning Control Applications," *The First IEEE Conference on Control Applications*, Dayton, Ohio, attendees: 28 of 225 registrants (4 hours).
- Baker, W. and J. Farrell, "Introduction to Learning Control," *1992 IEEE International Symposium on Intelligent Control*, Glasgow, Scotland, attendees: 33 of 150 registrants (6 hours).
- Farrell, J., "Connectionist Systems and Learning Control," *Systems Science Seminar*, Center for Systems Science and Engineering, Arizona State University, March 27, 1992.

REFEREED CONFERENCE PUBLICATIONS

- Farrell, J., and M. Livstone, "Exact Calculation of Discrete-Time Process Noise Statistics for Hybrid Continuous/Discrete Time Applications," *Conference on Decision and Control*, submitted March 1993.
- Mangoubi, R., B. Appleby, and J. Farrell, "Robust Estimation in Fault Detection," *Proceedings of the 31st Conference on Decision and Control*, (Invited paper), December 1992.
- Farrell, J., B. Appleby, and T. Berger, "On the Detection and Accommodation of Unanticipated Faults," *Proceedings of the AIAA GN&C Conference*, (Invited paper), Aug. 1992.
- Livstone, M., J. Farrell and W. Baker, "A Computationally Efficient Algorithm for Training Recurrent Connectionist Networks," *Proceedings of the American Controls Conference*, Chicago, June 1992.
- Baker, W., and J. Farrell, "Learning Augmented Flight Control for High Performance Aircraft," Draper Laboratory Publication P-3080, *Proceedings, AIAA Conference on Guidance, Navigation, and Control*, August, 1991.
- Farrell, J., B. Goldenthal, and K. Govindarajan, "Application of Neural Networks to Automatic Control: Submarine Heading Control," *Proceedings of the 29th Annual Conference on Decision and Control*, Honolulu, HI, December, 1990.
- Goldenthal, B., and J. Farrell, "Application of Neural Networks to Automatic Control," *Proceedings of the AIAA Guidance, Navigation, and Control Conference*, Portland, Oregon, August, 1990.
- Michel, A., J. Farrell, and H. Sun, "Synthesis Techniques for Discrete Time Neural Networks," *Proceedings of the 28th IEEE Conference on Decision and Control*, Tampa, FL, December, 1989.
- Michel, A., and J. Farrell, "Design Techniques of Neural Networks for Associative Memories," *Proceedings of the 28th IEEE Conference on Decision and Control*, Tampa, FL, December, 1989.
- Michel, A., and J. Farrell, "Digital Implementations of Linear Feedback Controllers: Qualitative Properties and Limitations," *Proceedings of the 28th IEEE Conference on Decision and Control*, Tampa, FL, December, 1989.
- Farrell, J., and A. Michel, "Estimates of Asymptotic Trajectory Bounds in Digital Implementations of Linear Feedback Control Systems," *Proceedings of the Twenty-Seventh IEEE Conference on Decision and Control*, December 7-9, 1988, Austin, Texas.
- Miller, R., A. Michel, and J. Farrell, "Quantizer Effects on Steady State Error Specifications of Digital Feedback Control Systems," *Proceedings of the Twenty-Seventh IEEE Conference on Decision and Control*, December 7-9, 1988, Austin, Texas.

ADDITIONAL CONFERENCE PUBLICATIONS

- Farrell, J., and W. Baker, "Learning Augmented Control for Advanced Autonomous Underwater Vehicles," Draper Laboratory Publication R-3068, *Proceedings, 18th Annual Symposium & Exhibit of the Association for Unmanned Vehicle Systems*, August, 1991.
- Alexander, J., Baird, L., Baker, W., and J. Farrell, "A Design & Simulation Tool for Connectionist Learning Control Systems: Application to Autonomous Underwater Vehicles," CSDL P-3041, *Proceedings of the SCS Summer Computer Simulation Conference*, July, 1991.
- Baker, W., and J. Farrell, "Connectionist Learning Systems for Control," *SPIE OE/Boston '90*, (Invited Paper), Boston, MA, November, 1990.
- Farrell, J., and A. Michel, "A Synthesis Procedure for Hopfield's Continuous Time Content Addressable Memory," *Proceedings of the International Symposium on Circuits and Systems*, May, 1989, Portland, Oregon.
- Michel, A., J. Farrell, D. Gray, and W. Porod, "Some Results on the Modelling, Analysis, and Design of Neural Networks," *Proceedings of the International Symposium on Circuits and Systems*, May, 1989, Portland, Oregon.
- Michel, A., J. Farrell, and H. Sun, "On the Analysis and Synthesis of Discrete Time Implementations of Hopfield Neural Networks," *Proceedings of the 1989 Conference on Information Sciences and Systems*, March 22-24, 1989, Baltimore, Maryland.

J. A. Farrell

December, 1992

- Farrell, J., and A. Michel, "New Estimates of Asymptotic Trajectory Bounds for Digital Filters: Improved Results," *Proceedings of the Twenty-Sixth Annual Allerton Conference on Communication, Control, and Computing*, September 28-30, 1988, University of Illinois, Urbana, Illinois.
- Michel, A., J. Farrell, and J. Li, "Qualitative Analysis of Neural Networks," *Proceedings of the IEEE International Symposium on Circuits and Systems*, June 6-9, 1988, pp.989-992, Helsinki, Finland.
- Farrell, J., and A. Michel, "Asymptotic Trajectory Bounds in Digital Implementations of Linear Feedback Control Systems," *Proceedings of the Twenty-Second Annual Conference on Information, Sciences and Systems*, March 16-18, 1988, Princeton, New Jersey.
- Michel, A., W. Porod, and J. Farrell, "Stability Results for Neural Networks (poster)," *IEEE conference on Neural Information Processing Systems*, November 1987, Denver, Colorado.
- Michel, A., J. Farrell, and W. Porod, "Qualitative Analysis of Neural Networks: Local Theory," *Proceedings of the Twenty-fifth Annual Allerton Conference*, September 30- October 2, 1987, University of Illinois, Urbana, Illinois.
- Michel, A., J. Farrell, and W. Porod, "Qualitative Theory of Neural Networks," *International Symposium on the Mathematical Theory of Networks and Systems*, June 17-19, 1987, Phoenix, Arizona.

TECHNICAL REPORTS

- Farrell, J. and K. Flueckiger, "Adaptive Robust Control," Independent Research and Development Technical Plan #369, The Charles Stark Draper Laboratory, Inc., Cambridge, MA, September, 1991.
- Baker, W., and J. Farrell, "Connectionist Systems and Learning Control," Independent Research and Development Technical Plan #276, The Charles Stark Draper Laboratory, Inc., Cambridge, MA, September, 1991.
- Farrell, J., "Intelligent Control and Vehicle Assessment for Autonomous Systems," Independent Research and Development Technical Plan #302, The Charles Stark Draper Laboratory, Inc., Cambridge, MA, September, 1991.
- Farrell, J. and W. Baker, "Connectionist Systems and Learning Control," CSDL Report R-2267, Independent Research and Development Technical Plan #276, The Charles Stark Draper Laboratory, Inc., Cambridge, MA, September, 1990.
- Farrell, J., "Intelligent Control and Vehicle Assessment for Autonomous Systems," CSDL Report R-2267, Independent Research and Development Technical Plan #302, The Charles Stark Draper Laboratory, Inc., Cambridge, MA, September, 1990.
- Farrell, J., "Application of Neural Networks to Automatic Control," CSDL Report R-2180, Independent Research and Development Technical Plan #276, The Charles Stark Draper Laboratory, Inc., Cambridge, MA, September, 1989.
- Farrell, J., "Intelligent Control and Vehicle Assessment for Autonomous Systems," CSDL Report R-2180, Independent Research and Development Technical Plan #302, The Charles Stark Draper Laboratory, Inc., Cambridge, MA, September, 1989.

BIOMEDICAL INSTRUMENTATION & TECHNOLOGY

Scientific Editor: Michael J. Kallok, Ph.D., F.A.C.C., P.E.

December 13, 1993

Robert J. Marks II, Ph.D.
University of Washington
Dept. Electrical Engineering
FT-10
Seattle, Washington 98195

Re: Manuscript #9315

Dear Dr. Marks:

The enclosed review manuscript entitled "The Use of Artificial Neural Networks in Biomedical Technologies" falls within your special area of expertise. If you can complete your review within three weeks, I would greatly appreciate your assistance in evaluating this manuscript. Your comments will be a very important factor in my decision regarding publication of this paper in Biomedical Instrumentation & Technology.

If you are unable to review this paper by January 3, please return it to me so that I might forward it to another reviewer.

Thank you in advance for your assistance.

Sincerely,



Michael J. Kallok, Ph.D., F.A.C.C.
Scientific Editor

file

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We should like to remind you that if you want your paper to be included in the Proceedings, it must reach us by 20th January 1994. Please find enclosed the instructions for camera-ready.

Thank you for your interest in ICANN-94.

Prof. M. Marinaro
(Conference chairperson)

P.S. Proposed Topic

"

"

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up on this
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Bob*

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The following formatting points are very important for the quality of the proceedings.

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Use a 10-point font for the main text, tables and figures. Do not use a font smaller than 8-point for anything, including labels on figures.

Use a serifed font, e.g. Times.

3.1.2 *Figures*

Insert all tables, figures, and figure captions in the camera-ready copy at their final positions. Tables and figures should fit within the typing area and must be originals, **NOT** photocopies. If it is essential to include photographs, please send high-contrast glossy black and white prints - please leave sufficient space in the camera-ready copy for the printer to drop in each photograph.

3.1.3 *Layout*

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Equations are centered as follows:

$$x = \frac{y + 2/2}{y^2 + 1} \quad (1)$$

3.1.5 *Footnotes*

Footnotes can be inserted anywhere in the text ¹ and must be numbered.

3.1.6 *References*

As regards the reference style, please use the variant of the "biological style" adopted by the official journal of ENNS (Neural Networks). The two essential features of this style are the following:

- The reference list is in alphabetical order (each entry has authors, date in parenthesis, title, journal, volume, pages):
Red, J., White, B., and Green, A.B. (1994) Paper in journal. Journal Name, 123, 90-101.
- Citations consist of name and year in parenthesis: (Red et al., 1994).

¹This is an example of footnote.

Paper Format for ICANN'94 in Sorrento

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City and Country

1 Introduction

This is the format for camera ready manuscript.

2 Paper submission

Interested authors are cordially invited to submit their works in one of the following scientific areas:

- *A-Cognitive Science; B-Mathematical Models; C- Neurobiology; D-Fuzzy Systems; E-Neurocomputing,*

indicating also an **application domain**:

- *1-Motor Control; 2-Speech; 3-Vision; 4-Natural Language; 5-Process Control; 6-Robotics; 7-Signal Processing; 8-Pattern Recognition; 9-Hybrid Systems; 10-Implementation.*

Four-pages, camera-ready papers must be received in 3 copies by December 15, 1993. Papers received after that date will be returned unopened.

In an accompanying letter, the following should be included: (i) title of the paper, (ii) corresponding author, (iii) presenting author, (iv) scientific area and application domain (e.g. "B-7"), (vi) audio-visual requirements.

3 Paper Format

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IEEE FAX TRANSMITTAL MEMO

12/30/93



TO: Robert Hohwald
IEEE Marketing
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FROM: Prof. Robert J. Marks II, Editor
Transactions on Neural Networks, Council
fax: (202) 543-3842

I have indicated below my changes to your list of key competitors to our periodical. Please take this as the official response of my society.

Society Periodical: Transactions on Neural Networks

Key Competitors: Bio Cybernetics (Springer Verlag)
Neural Network (Pergamon)
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Cognizer Report (Frontline)
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Never heard of this!



- Delete the journals I've crossed out
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all looks ok
Bob Marks*

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Vietri sul Mare, December 20, 1993

object: paper refereeing for ICANN-94

Dear colleague,

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To make more expedite the review, we have enclosed the forms to be filled. Please, fax them back (fax n. +39 - 89 - 761189) within **January 20**.

Thank you for your collaboration.

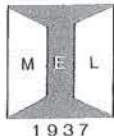
Sincerely,

Maria Marinaro

Piero Morasso

Taped + mailed 12/29

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Telex 3652570 AIST J

November 22, 1993

Prof. Robert J. Marks II
University of Washington
Mail Stop SF-10
Seattle, Washington 98195
U.S.A.

Dear Prof. Marks,

Please accept a copy of the proceedings of the

1993 IEEE/Tsukuba International Workshop on Advanced Robotics
— Can robots contribute to preventing environmental deterioration? —

held on November 8-9, 1993 in Tsukuba, Japan.

Thank you very much for your cooperation as a member of the advisory committee.

Sincerely yours,

Kazuo Tani, Dr. Eng.
General Chair of the Workshop

Mechanism Division, Robotics Department
Mechanical Engineering Laboratory
Namiki, Tsukuba, Ibaraki 305
Japan
Tel +81 298 58 7085
Fax +81 298 58 7275

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Selected Papers--Milestone Series (Jutamulia Volume)

#45 "Class of continuous level associative memory neural nets"
R.J. Marks II (Applied Optics 1987)
Vol. 26(10), pp. 2005-2010 (May 1987).

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November/1993



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*Scholarly technical
publications in optical
and optoelectronic
applied science
and engineering*

November 16, 1993

Prof. Robert Marks
Univ. of Washington
FT-10, Electrical Engineering
Seattle WA 98195

Dear Prof. Marks:

Dr. Suganda Jutamulia, the editor of a volume for SPIE's Milestone Series, has selected your paper(s) (listed on the next page) to be included in his book on the subject of **Optical Neural Networks**.

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Sincerely,

Lorie Pancoe
Milestone Series Coordinator
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Washington State University

School of Electrical Engineering and Computer Science

Pullman, WA 99164-2752
509-335-6602

November 19, 1993

Professor Robert Marks II
Dept. of Electrical Engineering, FT-10
University of Washington
Seattle, WA 98195

Dear Professor Marks:

Please find enclosed paper summaries submitted for consideration for ISCAS 1994. I wonder if I could prevail upon you to review these and complete the associated Reviewer's Recommendation Form(s). Please feel free to use any appropriate colleagues in the process if required. Can you please return the Reviewer's Recommendation Form to me by December 14, 1993, at the address shown below? It might be wise if you could fax your reply in order to avoid any delays.

Professor Jack L. Meador
School of Electrical Engineering
and Computer Science
Washington State University
Pullman, WA 99164-2752
USA

Fax: (509) 335-3818
Tel: (509) 335-5363
e-mail: meador@eecs.wsu.edu

Unfortunately, the timetable is quite tight and we are under great pressure to adhere to it. Please let me know immediately if you will not be able to undertake the review task on schedule.

With many thanks in advance for your help.

Yours sincerely,

A handwritten signature in cursive script that reads "Jack".

Jack L. Meador
Neural Systems Track Co-Chair
Technical Program Committee

JLM/hjs

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| 3. Analogue Signal Processing | Chris Toumazou | Phil Allen |
| 4. Digital Signal Processing | Larry Lind | Ed Coyle |
| 5. VLSI | John Mavor | Magdy Bayoumi |
| 6. Computer Aided Design | Peter Cheung | Andrzej Strojwas |
| 7. Neural Systems | Rob Massara | Jack Meador |
| 8. Nonlinear Circuits and Systems | Gaynor Taylor | Martin Hasler |

Publications: Randeep Soin

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*Scholarly technical
publications in optical
and optoelectronic
applied science
and engineering*

November 16, 1993

Prof. Robert Marks
Univ. of Washington
FT-10, Electrical Engineering
Seattle WA 98195

Dear Prof. Marks:

Dr. Suganda Jutamulia, the editor of a volume for SPIE's Milestone Series, has selected your paper(s) (listed on the next page) to be included in his book on the subject of **Optical Neural Networks**.

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As a contributing author you may purchase this Milestone book at our approximate cost of publication which is \$40 softbound and \$55 hardbound. We will notify you with a flyer and order form when the book is available.

We look forward to including your paper in Dr. Jutamulia's volume.

Sincerely,

Lorie Pancoe
Milestone Series Coordinator
email: lorie@mom.spie.org

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Selected Papers--Milestone Series (Jutamulia Volume)

#45 "Class of continuous level associative memory neural nets"
R.J. Marks II (Applied Optics 1987)
Vol. 26(10), pp. 2005-2010 (May 1987).

My permission to reprint the requested paper is hereby granted.

Name (please print) MARKS FAX: 543 3842

Signature  Date 11/18/93

Please check one of the following:

1. I can accommodate Milestones with three **reprints** of my paper. (Please mail flat)
 Yes, Milestones may keep the reprints.
 Please return the reprints.
2. No reprints are available, so I will send three of the best quality **photocopies** available. (Please mail flat.)
3. No reprints or photocopies are available.

THANK YOU!

November/1993

Northcon

FACSIMILE COVER SHEET

DATE: 9/24/93 NUMBER OF PAGES: 73
 (Including Cover Page)

TO: Robert Marks

FAX #: 206-543-3842

FROM: JOAN CARLISLE, DIRECTOR OF CONFERENCE MGMT. EXT. 243

MESSAGE: Re: Your seminars at N93 -
(a) Fuzzy Systems, only 2 registrants
(b) Neural Networks, only 2 registrants
(a+b) Combo 2 registrants.
or
4 for a.m.
2 for p.m.

Do you want to cancel or wait until 10/4 to check ~~registration~~ registration numbers?

If there are any problems in receiving this transmission, please call the sender at
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Reply faxed: 415-978-3505 9/28/93



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TOTALS
BY COURSE 6a

As of 9/21/93

Robert Marks 206-543-6990

Fuzzy Systems and Their Applications

Levine, Kenneth

CREDIT CARD

Shen, Robert

CREDIT CARD

Paid per Course 0

Credit Card per Course 2

Comp per Course 0

Need Check per Course 0

Refund per Course 0

Total per Course 450

Number Registered per Course 2



For Office Use Only

TOTALS

Robert Marks

As of 9/21/93

BY COURSE

6a/6b

206-543-6990

Combo Package

Lyons, Harold

NEED CHECK

Mair, Steven

PAID

Paid per Course 1

Credit Card per Course 0

Comp per Course 0

Need Check per Course 1

Refund per Course 0

Total per Course 800

Number Registered per Course 2

file



Department of Computer Science
704/547-4880

August 30, 1993

Dr. Robert J. Marks II, Editor-in-Chief
IEEE Transactions on Neural Networks
University of Washington
Dept. of Electrical Eng.
c/o 1131, 199th Street S.W., Suite N
Lynnwood, WA 98036-7138

Dear Prof. Marks,

Dr. Zbigniew Michalewicz is a candidate for promotion to full professor at the University of North Carolina at Charlotte. As a part of the review process, and in accordance with departmental and college policy, we need external reviews of his scholarly and creative activities. The Committee seeks an objective evaluation of the candidate's professional accomplishment in research, teaching and service.

Because of your distinction in his field of scholarship, your name has been suggested as an individual who might be willing to provide an evaluation of the originality, quality and significance of his research and appropriateness of the journals and professional meetings where he presents the results of his research. We will appreciate your judgment as to whether he has established himself as an independent scholar, has made any significant contributions to his discipline and is appropriately active in his field.

Enclosed is the Curriculum Vitae of the candidate and a collection of publications that the candidate considers representative of past work. The Committee trusts that you will agree to return an evaluation/reference letter by September 24. Our recommendation must be submitted before the end of September.

I thank you in advance for any and all efforts you will make to assist us in this important evaluation and for meeting the September 24 deadline. Should you choose to give a timely response by fax or by electronic mail, I ask that you follow it up by a signed original to arrive by October 8, 1993.

Sincerely,

Zbigniew W. Ras
Professor of Comp. Science
P&T Committee, Chairman

Phone: 704-547-4567
e-mail: ras@mosaic.uncc.edu
fax: 704-547-3516

Enclosures: Curriculum Vitae for Dr. Zbigniew Michalewicz
Selection of publications

*The University of North Carolina is composed of the sixteen public senior institutions in North Carolina
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file

UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98195

Department of Electrical Engineering, FT-10
Telephone: (206) 543-6990 (office), 543-6061 (secretary),
543-2150 (main office), 543-3842 (FAX).
marks@u.washington.edu

September 2, 1993

Morgan Mangeas
Electricité de France
Direction des Etudes et Recherche
1 avenue du général de Gaulle
92 141 Clamart Cedex, FRANCE
FAX 33 1 47 65 54 28

Dear Mr. Mangeas,

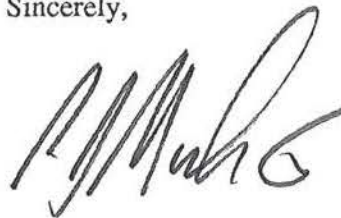
I am responding to your letter dated 24 August 1993 inquiring about a post doctoral position in our department.

Your work dovetails nicely with ours. Our group has been looking at a number of forecasting problems, primarily in finance. We have also participated in some quite exciting work in power load forecasting.

With the understanding that any position would have to go through the formalities of approval by our department, I would be interested in working with you. Your availability of funds is fortunate. I currently have no funds available for your support.

If you are still interested, please let me know and I will initiate the administrative process here.

Sincerely,



Robert J. Marks II
Professor

file

P.R.P. Hoole, BSc (Hons), MSc (Lond),
DQMC, MSc(Oxon), DPhil (Oxon)
Dept. of E & E Eng.
Faculty of Engineering,
University of Peradeniya, Peradeniya,
Sri Lanka.
25th June 1993

To:
Prof. Robert J. Marks II
University of Washington,
Dept. of Electrical Engineering,
c/o 1131 199th St. S.W. Suite N,
Lynnwood,
WA 98036-7138,
USA

Re: Neural Networks and Fuzzy Logic (NN-FL) for EE Undergraduates

I shall be much obliged if you, or one of the editors of the IEEE Tran on Neural Networks, could find time to advise me on the following.

I am currently considering offering an elective course on Intelligent Computer Systems (/Artificial Neural Networks and Fuzzy Systems/Real time Computer Systems with Machine Intelligence) to my final year undergraduate students. There is some controversy regarding this. It is said that such a course is not useful at all for undergraduates and that experience elsewhere shows this to be the case. Could you please let me know

- (a) what you and Universities have learned in offering this or other NN-FL course
- (b) are the students able to get jobs in the end
- (c) the contents of the course
- (d) the text book used (I am hoping to use Bart Kosko's book).

Looking forward to hearing from you.

Will you be in a position to recommend an external examiner for this course at Peradeniya?

Yours sincerely,

P.R.P. Hoole

P.R.P. Hoole (Dr)
(IEEE Mem No. 0989038)

UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98195

Department of Electrical Engineering, FT-10
Telephone: (206) 543-2150
FAX: (206) 543-3842

September 10, 1993

U. S. Department of Justice
Immigration and Naturalization Service
Northern Region Service Center
Federal Building, U. S. Courthouse
Room B-26, 100 Centennial Mall North
Lincoln, Nebraska 68508

Dear Ladies and Gentlemen:

SUBJECT: Dr. Seho Oh

This letter supplements my letter of August 15, 1993, concerning the qualifications of Dr. Seho Oh as an Outstanding Researcher.

My August 15, 1993, letter cites the outstanding contributions Dr. Oh's research has made in the field. By this letter I am confirming that outstanding research encompassed the years 1986-1989 when he was enrolled in the Ph.D. program and 1990-1993 when he was employed in the post doctoral program. Both programs were at the University of Washington, from which he graduated in 1989.

Again, if you have any questions concerning this, please call me.

Sincerely,

Robert J. Marks II
(206) 543-6990

DRAFT 9/7/93 10:45 AM

September 7, 1993

U.S. Department of Justice
Immigration and Naturalization Service
Northern Region Service Center
Federal Bulding, U.S. Courthouse
Room B-26, 100 Centennial Mall North
Lincoln, Nebraska 68508

Re: Dr. Seho Oh

Dear Ladies and Gentlemen:

This letter supplements my letter of August 15, 1993, concerning the qualifications of Dr. Seho Oh as an Outstanding Researcher.

My August 15, 1993 letter cites the outstanding contributions Dr. Oh's research has made in the field. By this letter I am confirming that that outstanding research encompassed the _____ years he was enrolled in the Ph.D. program at the University of Washington, from which he graduated in 1989. [probably, include the post doc periods] ?

Again, if you have any questions concerning this, please call me.

80-89
90-93 post doc

Very truly yours,

Robert J. Marks, II, Professor

file

Mohamed A. El-Sharkawi

*14604 SE 79th Drive
Renton, WA 98059*

August 31, 1993

Dr. Atif Debs, President
Decision Systems International
One Buckhead Plaza, Suite 1410
3060 Peachtree Road NW
Atlanta, Georgia 30305

Dear Atif:

As per our phone conversation, we would like to discuss with DSI the potentials for marketing our graphical software on NN. In particular, we would like to discuss the business plan, royalties and commercialization process.

We have a legal release from the University of Washington to commercialize this software on our own. Professor Marks, Dr. Oh and I are very much interested in seeing that our software is commercialized.

Sincerely,

Mohamed

Mohamed

file



INFORMATION THEORY SOCIETY

Professor Andrew R. Barron
Associate Editor
Nonparametric Estimation, Classification,
and Neural Nets
IEEE Transactions on Information Theory

PLEASE REPLY TO:
Department of Statistics
Box 2179 Yale Station
New Haven, CT 06520 USA

28 July 1993

Robert J. Marks, II
Department of Electrical Engineering
Ft-10 University of Washington
Seattle, WA 98195

Dear Professor Marks;

I appreciate very much your serving as a referee for the paper: "On the restoring band-limited signals" by Miroslaw Pawlak. Enclosed you will find a copy of the reviews of the paper as well as a copy of our correspondence with the author.

Thank you again.

Thanks!

Sincerely,

Andrew R. Barron

Andrew R. Barron
Associate Editor

file



IEEE

IEEE PRESS

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E-Mail: d.kay@ieee.org

DIRECT NUMBER (908) 562-

MEMORANDUM

DATE: July 23, 1993
TO: Prof. Marks
FROM: Lisa Mizrahi, Editorial Coordinator
RE: Proposal Review

Thank you Prof. Marks. Your review of the Stankovic proposal is very important. Moreover, your comments and suggestions will assist the Press in evaluating the project's future potential. It's people like you, taking a strong interest in IEEE Press that make quality materials available to the Membership and other professionals in the field.

Understanding you are a close friend of the Press, I would not attempt to "Rope" you into any long-term review commitment. However, should this project continue further, might you be able to recommend a few folks to review (I tend to be a bit aggressive)?

Again, Prof. Marks, thank you for your assistance with this project. Have a wonderful day.

Regards,

A handwritten signature in cursive script that reads "Lisa".

B:\PROJECTS\STANKOVIC\MARKS.REV

file



OREGON STATE UNIVERSITY
Kidder Hall 368, Corvallis, Oregon 97331-4605
Phone: (503) 737-5182 / Email: faridani@math.orst.edu / Fax: (503) 737-0517

Professor Robert J. Marks
Dept. of Electrical Engineering, FT-10
University of Washington
Seattle, WA 98195

July 21, 1993

Dear Professor Marks:

A few days ago I became aware of your interesting volume on "Advanced Topics in Shannon Sampling and Interpolation Theory". I am enclosing a reprint and a preprint of my own work on the subject, which seems to be closely related to the article by K.F. Cheung.

I would appreciate it if you could send me preprints and reprints of your work related to the multidimensional extension of Papoulis' generalized sampling expansion and/or point out to me recent references which are not mentioned in Cheungs' article. My e-mail address is faridani@math.orst.edu.

Thank you very much in advance.

Yours sincerely,

A. Faridani

Adel Faridani

National Science Foundation
1800 G Street, NW
Washington, DC 20550

file



Division of Electrical and
Communications Systems

TO: NSF/ENG/ECS/ES/PS Grantees and Interested Persons
FROM: Art Bergen, NSF Program Director for Power Systems
SUBJECT: New Program Director
DATE: July 30, 1993

I am pleased to announce that on August 1, Professor Vijay Vittal of Iowa State University will begin his term as the new NSF ECS Division Program Director for Power Systems. Vijay is already here working with me in the completion of the 1993 Fiscal Year award cycle. His address is:

Dr. Vijay Vittal
National Science Foundation, Rm 1151
1800 G St. N.W.
Washington, D.C. 20550
telephone: (202) 357-9618
email: vvittal@nsf.gov
fax: (202) 357-9408

I would like to remind those of you with continuing grants that you should send Vijay an annual progress report and request for continuing funds no later than 60 days before the grant expiration date. An earlier submission would be appreciated if the grant expires late in the fiscal year. Let me also remind you that the deadline for requests for PYI and NYI matching funds for FY '94 is June 1, 1994.

I will be returning to Berkeley on or about August 15, 1993 with the following address:

Prof. Arthur R. Bergen
Electrical Engineering and Computer Sciences Dept.
University of California at Berkeley
Berkeley, CA 94720
telephone: (510) 642-1734
messages: (510) 642-3214
email: bergen@hera.Berkeley.EDU

I very much enjoyed working with you and appreciate your cooperation and patience which made my job at NSF much easier and, frequently, even enjoyable. I particularly enjoyed meeting many of you for the first time and renewing old contacts. Thank you for helping to make this a good year for me at NSF.

UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98195

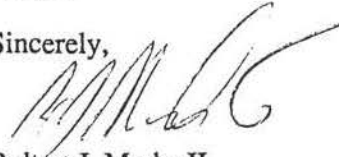
Department of Electrical Engineering, FT-10
Telephone: (206) 543-6990 (office), 543-6061 (secretary),
543-2150 (main office), 776-8995 (home), 543-3842 (FAX).
marks@u.washington.edu

July 6, 1993

Lisa S. Mizrahi
IEEE Press
445 Hoes Lane
P.O. Box 1331
Piscataway, NJ 08855-1331

Enclosed are my brief comments on the book by Stankovic.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. Marks II', written over a light blue horizontal line.

Robert J. Marks II
Professor

file



Optical Society of America

May 17, 1993

Dr. Robert J. Marks II
Dept. of Elec'l Engineering, MS FT-10
University of Washington
Seattle, WA 98195

Dear Dr. Marks:

This is to acknowledge receipt of your fellow reference for Martin J. Bastiaans.

The nomination and reference forms on Martin J. Bastiaans will be forwarded to the 1993 Fellows and Honorary Members Committee for its consideration. The committee's recommendations will be sent to the Board of Directors for its approval at its spring meeting in 1994. After the Board has met, we will contact you to let you know the results of the election.

Sincerely,

Belinda Acre

Belinda Acre
Executive Assistant

/A

cc: John F. Walkup

file



IEEE

INFORMATION THEORY SOCIETY

Professor Andrew R. Barron
Associate Editor
Nonparametric Estimation, Classification,
and Neural Nets
IEEE Transactions on Information Theory

PLEASE REPLY TO:
Department of Statistics
Box 2179 Yale Station
New Haven, CT 06520 USA

12 May 1993

Professor Robert J. Marks, II
Department of Electrical Engineering
Ft-10 University of Washington
Seattle, WA 98195

Dear Dr. Marks;

I would appreciate very much your serving as a referee for the enclosed paper:

Author: Miroslaw Pawlak

Title: "On the restoring band-limited signals"

Identifying Number: CLN 93-167

which has been submitted as a regular paper to the IEEE Transactions on Information Theory. I believe the paper falls within your area of interest.

Please complete your review and return the manuscript and three copies of the review to me by July 12, 1993. If you are not able to referee the paper, please return it to me swiftly and if possible, suggest an alternate referee.

Thank you in advance for your help.

Sincerely,

Andrew R. Barron (true)

Andrew R. Barron
Associate Editor

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

Review of 'On the restoring of band-limited signals' by Pawlak & Rafajolowicz (CLN 93-167).

The authors propose two methods of interpolating signals corrupted by additive noise under the existence of truncation error. The results, to my knowledge, are unique and are worthy of publication.

Some comments...

The English is both sparse and in need of improvement. I found the writing style of the authors to be overly terse.

The authors used the overall error energy as a metric rather than the instantaneous power of the error. Bracewell, in **The Fourier Transform and Its Applications** is the first I'm aware of to demonstrate that the interpolation noise level (power) is the same as the data noise level. Integrating this to obtain the noise energy will, of course, give expressions such as (1.5) that diverge. Indeed, any stationary noise corruption will produce infinite error energy. This point in the paper is, I believe, a bit overplayed.

On page 3, there is a statement that bandlimited signals can be time limited. **NO BANDLIMITED SIGNAL CAN BE TIME LIMITED** in the strict sense. Good grief. All bandlimited signals are analytic and the only analytic function that is time limited is $x(t)=0$.

file



IEEE

CIRCUITS AND SYSTEMS SOCIETY

IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS

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Dept. of Electrical Engineering
and Computer Science
University of Illinois - Chicago
Chicago, IL 60680

Professor RJ Marks, II
Department of Electrical Engineering
University of Washington
Seattle, Washington 98195
USA

Ms. Ann Bucciferro
Dept. of EECS (M/C 154)
University of Illinois at Chicago
851 S. Morgan -Room 1120
Chicago, Illinois 60607-7043
Tel: (312) 413-7656
Fax: (312) 413-0024
E-mail: james@eeecs.uic.edu

May 12, 1993

ASSOCIATE EDITOR, EXPRESS LETTERS

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Dept. of Electrical Engineering
University of Notre Dame
Notre Dame, IN 46556

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Bang-Sup Song
University of Illinois

Kung Yao
University of California - Los Angeles

RE: CAS Manuscript No. **A0274**
Title: *Extension of a Finite Version of the Sampling Theorem*
by A. De Sabata

Dear Professor Marks, II:

It will be greatly appreciated if you will serve as one of the reviewers for the enclosed manuscript which has been submitted for possible publication in the *IEEE Transactions on Circuits and Systems*.

In case you will be unable to carry out the review, please feel free to pass the manuscript on to a colleague if you believe he/she would be a qualified reviewer. If neither you nor a colleague will be able to complete the review, I would be grateful for the prompt return of the manuscript, if possible, with your suggestions of one or two appropriate alternative reviewers.

Sincerely,


Bang-Sup Song
Associate Editor

Enclosure

AE-0A

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

Review of Extension of a finite version of the sampling theorem

I have looked this paper over a number of times, and have a very difficult time following the discussion and the math. I believe what the authors are doing is generalizing sampling theory of multi-dimensional trigonometric polynomials. If so, this paper contains a result that has not yet been published.

Multidimensional extensions of Papoulis' generalization have been used to reduce the sampling density to that level equal to the support of the signal's Fourier transform. (See, for example, the enclosed chapter by Cheung). This paper derives the same result for the discrete case.

If the paper could be more clearly written and previous work taken into account, acceptance might be possible.-

