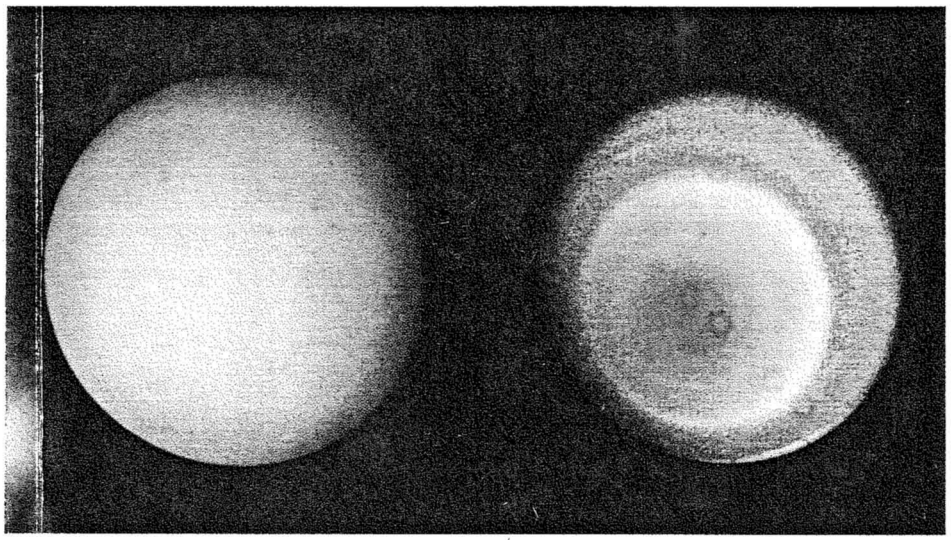
AMCEE Videotape Courses for engineers, scientists and technical managers.



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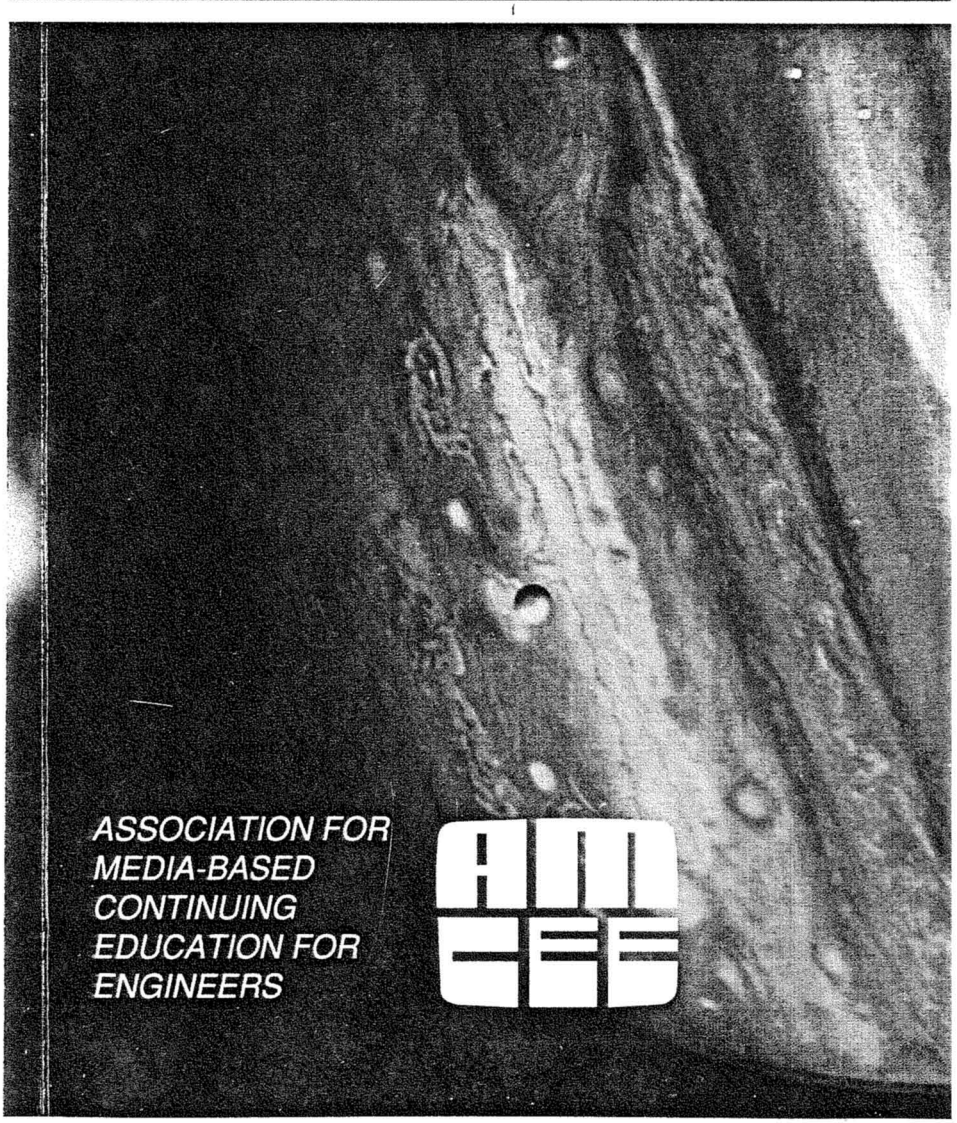

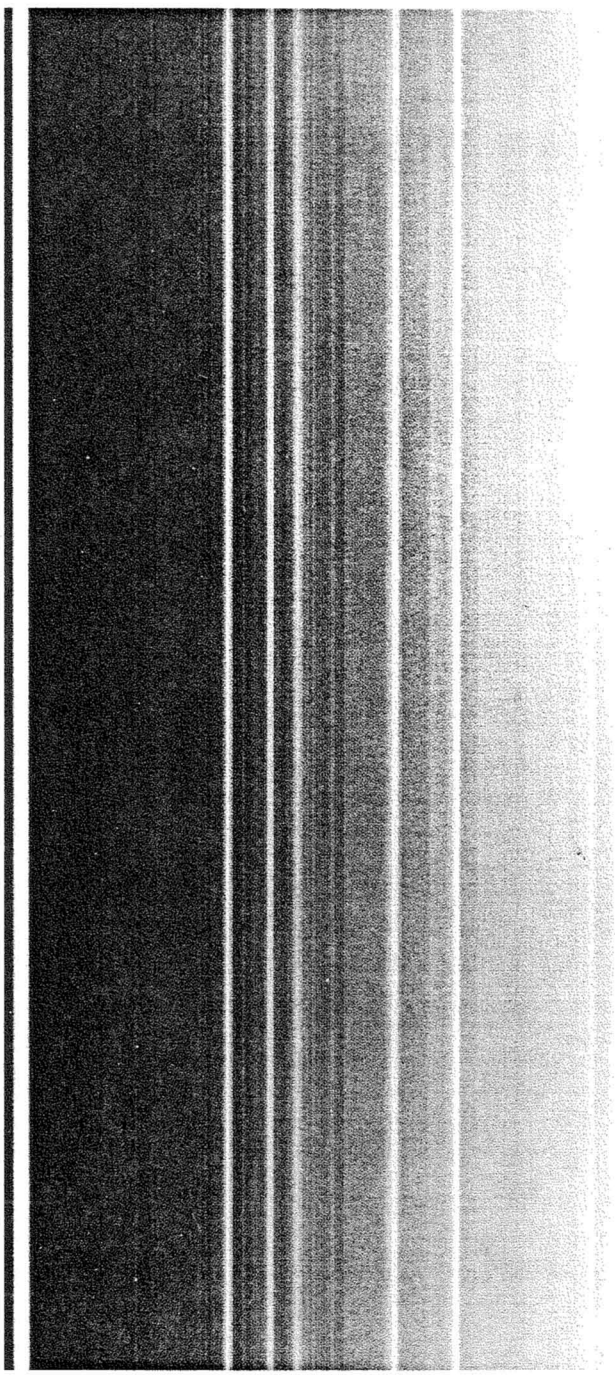

INTERCONNECTION NETWORKS FOR PARALLEL PROCESSING

Purdue University

12 Color VIdeocassettes
Lecture Notes

This course examines different types of network topologies for interconnecting the processors in a large-scale (e.g. 26 to 216 processors) parallel computer system. The course is the second in a two course series.

Intended Audience

It is assumed that all course attendees will have taken the first video course, Parallel Processing Networks and Systems.

Instructor

Dr. H. J. Siegel is currently Professor of Electrical Engineering at Purdue University, West Lafayette, Indiana.

Course Description

1. Overview; SIMD Parallel Machine Model
2. SIMD (cont'd)
3. Single Stage Network Comparisons
4. Single Stage Network Comparisons (cont'd)
5. Single Stage Network Comparisons (cont'd)
6. Single Stage Network Comparisons (cont'd)
7. Partitioning Single Stage Networks
8. Partitioning Single Stage Networks (cont'd)
9. Data Manipulator Networks
10. Data Manipulator Networks (cont'd)
11. Data Manipulator Networks (cont'd)
12. Data Manipulator Networks (cont'd)

Videocassettes	12-Week Rental	$1200
	Purchase	$2850

Lecture Notes $20
The lecture notes include copies of the visuals used in the course. One set included with purchase or rental of the videotape series. (10% discount on order for 5 or more.)

Textbook
Interconnection Network for Large-Scale Parallel Processing: Theory and Case Studies, is available from Lexington Books, D. C. Heath. (To order, call toll free 800-235-3565.)

Preview Package
We will send you a VHS copy of the first tape and a representative portion of the study guide. The videocassette must be returned within 30 days.

INTRODUCTION TO ARTIFICIAL NEURAL SYSTEMS

University of Washington

6 Color Videocassettes
Lecture Notes

Participants in this course will learn the theoretical underpinnings of artificial neural networks and will be presented with the most relevant research results. Case studies of the suitability of neural network architectures for several different applications will also be discussed. Interdisciplinary contributions to recent results in artificial neural network research will be stressed.

Intended Audience
Those interested in emerging signal processing and pattern recognition algorithms and architectures, and for those involved in charting new industrial directions.

Instructors
Dr. Les E. Atlas, Associate Professor, Electrical Engineering, University of Washington.
Dr. Robert J. Marks II, Professor, Electrical Engineering, University of Washington.

Course Contents
Introduction; Preliminaries; Applications to Combinatorial Search Problems; Associative Memories; Content Addressable Memories; Discussion of Course Simulator; Neural Network Performance; Introduction to Learning; Learning Algorithms and Some Applications; Introduction to Adaptive Resonance Theory; Silicon Neural Network Implementation; Optical Neural Network Implementation; Current Research Interests in Neural Nets.

Videocassettes	6-Week Rental	$600
	Purchase	$1200

Course Materials $15
— Six VHS Cassettes of lectures and copies of the lecture notes — An extensive forty page bibliography of artificial neural network publications — A floppy disk including a neural network simulator for MS DOS — an ASC file of the bibliography — Reprints of relevant papers.

Preview Packet $25