A SYMPOSIUM ON FEATURE EXTRACTION AND SELECTION IN PATTERN RECOGNITION

October 5-7, 1970
Argonne National Laboratory, Argonne, Illinois

sponsored by
IEEE Computer Group Midwest Area Committee and Pattern Recognition Committee
Argonne National Laboratory Applied Mathematics Division and High Energy Physics Division

October 5, 9:00 a.m. - 12:00 noon

SESSION 1—Theoretical Aspects I
CHAIRMAN: Laveen Kanal, LNK Corporation, Silver Spring, Maryland


2. "Multidimensional Rotations in Feature Selection," Harry C. Andrews, University of Southern California, Los Angeles, California.


4.* "Redundancy in Feature Extraction," R. P. Heydorn, Battelle Memorial Institute, Columbus, Ohio.

PANELISTS: B. Chandrasekaran, Ohio State University, Columbus, Ohio.
D. G. Lainiotis, University of Texas, Austin, Texas.

"short paper

SESSION 2—High Energy Physics Applications
CHAIRMAN: Al Brenner, National Accelerator Laboratory, Batavia, Illinois.


4. "Recognizing Events in a Sea of Bubbles," Howard White, Lawrence Radiation Laboratory, Livermore, California.

October 5, 1:30 p.m. - 4:30 p.m.

SESSION 3—Theoretical Aspects II


4.* "Theoretical Comparison of a Class of Feature Selection Criteria in Pattern Recognition," C. H. Chen, Southeastern Massachusetts University, North Dartmouth, Massachusetts.

PANELISTS: Laveen Kanai, LNK Corporation, Silver Spring, Maryland.
E. A. Patrick, Purdue University, Lafayette, Indiana.

SESSION 4—Short Papers I
CHAIRMAN: Stephen D. Shapiro, Bell Telephone Laboratories, Whippany, New Jersey.

1. "Pattern Recognition of Leaf Contours," M. Selson and R. A. Dunn, Georgetown University Medical Center, Washington, D.C.


7. "Two Dimensional Display of Multivariate Data," Keinosuke Fukunaga and David R. Olson, Purdue University, Lafayette, Indiana.


SESSION 5—Digital Processing and Analysis of Biomedical Images

CHAIRMAN: Raymond M. Kline, Washington University, St. Louis, Missouri.


PANELISTS:
M. Mendelsohn, Hospital of the Univ. of Penn., Philadelphia, Pennsylvania.
R. Selzer, Jet Propulsion Laboratory, Pasadena, California.
D. F. Wann, Washington University, St. Louis, Missouri.

SESSION 6—Optical Character Recognition

CHAIRMAN: Arthur Hamburger, IBM Corporation, Rochester, Minnesota.

4. "Feature Extraction for Handprinted Characters" Rabinow Division and Jack Rabinow Data Corporation, Rockville, Maryland.

SESSION 7—Picture and Image Processing


1. "Visual Texture Analysis," Azriel Rosenfeld and Eleanor B. Troy, University of Maryland, College Park, Maryland.

PANELISTS:
C. N. Liu, IBM Watson Research Center, Yorktown Heights, New York.
Stephen D. Shapiro, Bell Telephone Laboratories, Whippany, New Jersey.

SESSION 8—Short Papers II

CHAIRMAN: E. A. Patrick, Purdue University, Lafayette, Indiana.

2. "An Invariant Feature Extractor and a Statistical Sequential Classifier," Jung Pyo Hong, Jet Propulsion Laboratory, Pasadena, California.

SESSION 9—Digital Processing and Analysis of Biomedical Images II

CHAIRMAN: S. S. Yau, Northwestern University, Evanston, Illinois.


SESSION 10—Speech Signal I

CHAIRMAN: Kung-Pu Li, Purdue University, Lafayette, Indiana.

SESSION 11—Short Papers III

CHAIRMAN: C. N. Liu, IBM Watson Research Center, Yorktown Heights, New York.


2. "Characterization of Pulse Waveforms for Classification," W. J. Hankley and N. J. Miller, University of Utah, Salt Lake City, Utah.


SESSION 12—Speech Signal II


*Also with IBM Corp., Research Triangle Park, N. C.


GENERAL INFORMATION

Location

The Symposium will be held in Physics Building 203, Argonne National Laboratory, Argonne, Illinois. It is about 30 miles west of Chicago (loop) and the same distance south of O'Hare airport. It is about one mile south of Interstate 55 (exit Cass Avenue). Ample parking is available near the Physics Building 203.

Registration

Registration Fees (including one copy of Conference Record and one Banquet ticket)

Advance Registration (postmarked before September 28 or call Dorothy Carlson at 312s739-7711 ext. 4557 before Sept. 28*)

IEEE Member.................................................. $35.00
Nonmember .................................................. 40.00**
Full-time Student ......................................... 4.00 (without Banquet ticket)

Registration at the Conference (starting 8:15 a.m. October 5)

IEEE Member.................................................. $35.00
Nonmember .................................................. 40.00**
Full-time Student ......................................... 4.00 (without Banquet ticket)

*Advance registration insures that a complete registration packet will be ready for immediate pickup at the Symposium. No refunds for advance registration can be made after September 28, 1970.

**Nonmembers attending the Symposium will be given a credit of $5.00 if they apply for membership in the IEEE. Include your symposium receipt with your membership registration.

Conference Record

Each registrant will receive one copy of the Conference Record at the Symposium. Additional copies may be purchased at the Symposium for $4.00 per copy for IEEE members and $8.00 per copy for nonmembers. They may also be ordered after the Symposium from the Institute of Electrical and Electronic Engineers, Inc., 345 East 47 Street, New York, New York 10017, for $5.00 per copy for IEEE members and $10.00 per copy for nonmembers.

Tours

A special tours will be conducted between noon and 1:30 p.m., October 5-7, to the following two facilities at Argonne National Laboratory:

POLLY—An Automatic Bubble Chamber Film Measuring Device

ALICE—A General Purpose Image Processor

Banquet

The Banquet will be held on October 5 (Monday) at 6:15 p.m. Each registrant will receive one Banquet ticket. Additional tickets may be purchased only during advance registration for $5.50 per person. A social hour, sponsored by University of Chicago, will precede the Banquet.

Hotel Reservation

A block of rooms have been reserved in the nearby Ramada Inn. The daily rate is $14.00 for a single room and $19.00 for a double room. Transportation between Argonne National Laboratory and the Ramada Inn will be arranged for Symposium attendees. Hotel reservations should be made through Dorothy Carlson, Argonne National Laboratory, Argonne, Illinois 60439, or call her at 312/739-7711 ext. 4557.

Message Center

A message center will be maintained in front of the Auditorium during the Symposium. The telephone number assigned to the Symposium Message Center will be 312/739-7711 ext. 2405.

Symposium Committee

Symposium Chairman: S.S. Yau, Northwestern University, Evanston, Ill.

Technical Program: K.S. Fu, Purdue University, Lafayette, Indiana

A. Hamburger, IBM Corporation, Rochester, Minn.

Local Arrangement: David Jacobsohn, Argonne National Laboratory, Argonne, Ill.

Publication: J.M. Garnett III, Northwestern University, Evanston, Ill.

NOTE:

To register in advance, simply mail the name, affiliation, address, telephone number and a check of proper amount (see under REGISTRATION) payable to Argonne National Laboratory to:

Dorothy Carlson
Argonne National Laboratory
Argonne, Illinois 60439

For more information, call Dorothy Carlson at 312/739-7711 ext. 4557.