



International Association for Pattern Recognition, Inc.

An affiliate member of the International Federation for Information Processing

NEWSLETTER

Editor

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FROM THE EDITOR'S DESK

Dear Colleagues,

This newsletter hopefully reaches you at the 7th International Pattern Recognition Conference in Montreal, which is an occasion to reflect upon what we have accomplished and where we are going. From the preliminary program it is clear that the activity is growing and expanding to almost every engineering and scientific endeavour. I hope that the actual meeting will allow us to find out what is going on in different laboratories and exchange ideas. It is also an opportunity to hear from all the members what their wishes are for the direction of the society, the newsletter and future conferences.

I hope you will have a good time in Montreal, and I am looking forward to seeing you all.

With best wishes,

Ruzena Bajcsy
Ruzena Bajcsy

Awards Committee Announced

The Pattern Analysis and Machine Intelligence technical committee of the Computer Society is pleased to announce the formation of an awards committee consisting of *Laveen Kanal* (Chairman), *Christopher Brown*, *Linda Shapiro*, and *Ernest Kent*. The committee seeks nominations from **PAMI** readers for the best paper published in the first two volumes of **PAMI**, i.e. in 1979 and 1980. Please send your nominations to *Professor Laveen N. Kanal*, Director, Machine Intelligence and Pattern Analysis Lab, Department of Computer Science, University of Maryland, College Park, MD 20742, by *October 1, 1984*.

JAPANESE DOMESTIC ACTIVITIES IN PATTERN RECOGNITION AND IMAGE PROCESSING

Institute of Electronics and
Communication Engineers of Japan

March 1984

- CHAIN ENCODING OF TELEWRITING SIGNALS USING LINEAR INTERPOLATION, *Koji KONDO, Takehiko TSUIKI, Shigenori KINO*, Mitsubishi Electric Corporation
- THE METHOD OF EXTRACTING REGIONS IN DOCUMENT BY USING MARKS, *Masahiko HASE, Hisazasu ITO, Jen SUZUKI*, Yokosuka Electrical Communication Laboratory NTT
- A RECONFIGURABLE IMAGE PROCESSOR COMPOSED BY 16 PROCESSOR MODULES, *Hiroshi OHNO, Shoji TATSUMI*, Toyohashi University of Technology, Information and Computer Sciences
- SEGMENTED BLOCK CODING SCHEME OF DOCUMENT IMAGES AND ITS DATA COMPRESSION, *Masayuki OKAMOTO, Kouich KAWATA, Masahito TAMAI*, Faculty of Engineering, Shinsyu University
- A BASIC STUDY OF HANDPRINTED KANJI CHARACTERS RECOGNITION METHOD BASED ON IDENTIFICATION OF SUBPATTERNS, *Naoki TANAKA, Yoshinori SAKURAI, Hiromi AOTA, Hidehiko SANADA, Yoshikazu TEZUKA*, Osaka University
- MINIMIZATION METHOD OF CHINESE CHARACTERS BY THE MOTION OF TWO DIRECTIONS, *Tunehisa ASAKA, Kunio TAKAHASHI*, Kanagawa University
- RECOGNITION OF 3-D STRUCTURES AND MOTION OF MOVING OBJECT THROUGH OPTICAL FLOW FIELD, *Bunpei OHNISHI, Shun-ichi AMARI*, University of Tokyo, *Minoru MARUYAMA*, Mitsubishi Electric Corp.

- STUDIES ON FAST IMAGE PROCESSING USING TELEVISION CAMERA AND ULTRASONIC SENSOR, *Hiroshi TAKENAGA, Morio KANASAKI, Nobuyoshi TSUBOI, Masato SUZUKI, Yoshiki KOBAYASHI*, Hitachi Research Laboratory, Hitachi Ltd.
- MEASURING OF 3-D OBJECTS USING A RECORDED IMAGE PROJECTION AND 2 CAMERAS, *Norio AOKI*, Matsushita Electric Industrial Corp., *Masahiko YACHIDA, Saburo TSUJI*, Osaka University
- SPECIFIC OBJECTS EXTRACTION FROM PROJECTIVE PICTURES, *Seiji NAKAI, Seihaku HIGUCHI*, Dept. of Computer Science, Kyoto Institute of Technology
- A MAPPING METHOD FOR COMPUTER COLOR VISION, *Shoji TOMINAGA*, Osaka Electro-Communication University

May 1984

- FUNCTIONS FOR EDITING PROGRAMS OF SDIP (SUPPORTING SYSTEM FOR DEVELOPMENT OF IMAGE PROCESSING PROCEDURES, *Hidetomo SUZUKI, Jun-ichiro TORIWAKI*, Faculty of Engineering, Nagoya University
- DESCRIPTION OF 2-DIMENSIONAL SHAPE USING LINES AND CURVES, *Shinji KUNISHIGE, Norihide HATTORI, Naohiro ISHII*, Nagoya Institute of Technology, *Koki YAMAJI*, Nagoya Electro-Comm. Technical College
- ON THE APPROXIMATION OF PLANE CURVES BY LINE SEGMENTS AND CIRCULAR ARCS, *Yoshinori UESAKA, Toshifumi SHISHIDO*, Dept. of Information Sciences, Faculty of Science and Engineering, Science University of Tokyo
- AN ANALYSIS OF GRAY-LEVEL IMAGE BY PULSE DENSITY MODULATION, *Taizo IJIMA*, Tokyo Institute of Technology, *Junji KAWASAKI*, Kanazawa Institute of Technology
- ON THE AVAILABILITY OF REDUNDANCY OF PROJECTION DATA APPLIED TO REDUCE THE NOISE SENSITIVITY OF RECONSTRUCTED IMAGE, *Itsuo KUMAZAWA, Taizo IJIMA*, Tokyo Institute of Technology
- A MATHEMATICAL THEORY OF RECOGNIZING PATTERNS (PART I. A FUNDAMENTAL WAY OF THINKING), *Shoichi SUZUKI*, Department of Management Information, School of Information, Bunkyo University
- IMAGE RESTORATION BY PARAMETRIC PROJECTION FILTER, *Erkki OJA**, *Hidemitsu OGAWA*, Faculty of Engineering, Tokyo Institute of Technology (*Permanent address: University of Kuopio, Finland)
- A DIRECT METHOD OF IMAGE RECONSTRUCTION FROM CONE BEAM X-RAYS, *Atsushi IMIYA, Hidemitsu OGAWA*, Faculty of Engineering, Tokyo Institute of Technology
- RENDERING JEWELS BY COMPUTER GRAPHICS (1), *Kosuke KURASHIGE, Shigeki YOKOI, Jun-ichiro TORIWAKI, Takami YASUDA*, Faculty of Engineering, Nagoya University
- FEATURE EXTRACTION OF NASAL CONSONANTS BY HIGH RESOLUTION FREQUENCY ANALYSIS, *Tetsuya HARADA, Hiroshi KAWARADA*, Research Laboratory of Precision Machinery and Electronics, Tokyo Inst. of Technology
- A METHOD FOR RECOGNITION OF WORDS SPOKEN IN NOISY ENVIRONMENT, *Hiroyuki KAMEI, Yuichi UEDA, Hiroshi KAWARADA*, Research Laboratory of Precision Machinery and Electronics, Tokyo Inst. of Technology
- A CLASSIFICATION FOR THE CHARACTERISTICS OF BIOLOGICAL NON-STATIONARY SIGNAL, *Tohru KIRYU*, Dept. of Information, Faculty of Engineering, Niigata University, *Taizo IJIMA*, Dept. of Computer Science, Tokyo Institute of Technology

- ONLINE HANDWRITTEN CHARACTER-STRING RECOGNITION BY CANDIDATE CHARACTER LATTICE METHOD, *Hiroshi MURASE, Toru WAKAHARA, Michio UMEDA*, Musashino Electrical Communication Laboratory, N.T.T.
- A METHOD OF STROKE EXTRACTION FOR HANDPRINTED CHARACTER, *Koji KITAGAWA, Yoshihiro KITAMURA, Shogo AYAME, Hidehiko SANADA, Yoshikazu TEZUKA*, Faculty of Engineering, Osaka University
- A METHOD OF HANDWRITTEN KANJI CHARACTER RECOGNITION USING ATTRIBUTED GRAMMARS AND RELATIONS OF RELATIVE LOCATION AMONG PARTIAL PATTERNS, *Masashi TAKATOKU*, NEC Corporation, *Susumu ENOMOTO*, Science University of Tokyo

PUBLICATIONS

Technical Reports

Dr. Adolfo Guzman has written to us from Centro de Investigacion y de Estudios Avanzados del Instituto Politecnico Nacional, where he is spending a sabbatical year in the Electrical Engineering Department, concerning the Office of Technical Publications. The EE Dept. offers three types of publications in six areas of interest:

<i>Yellow Series:</i>	Technical Research and Development
<i>Green Series:</i>	Texts
<i>Blue Series:</i>	Technical Documents
<i>Solid State Electronics</i>	<i>Communications</i>
<i>Computation</i>	<i>Automatic Control</i>
<i>Metrology</i>	<i>Engineering Project</i>

Publications can be obtained from:

CIEA-IPN
Ingenieria Electrical
Publicaciones Tecnicas
PADO, Postal 14-740
07000 Mexico, D.F.

Dr. Guzman's current tech report is Applied Artificial Intelligence: An Emerging Technology of Widespread Use (AHR-83-27).

CALENDAR OF EVENTS

Association for Literary and Linguistic Computing
XII International ALLC Conference

Computers in Literary and Linguistic Research

5-8 June 1985
Palais des Congres (ACROPOLIS)
Esplanade Kennedy, Nice
(Salle Hermes)
Tel. 33 (93) 55 02 02
Sponsored by
Association for Computers and the Humanities

Theme

The subject of the Conference will center on the applications of the computer to literary and linguistic research. The general theme of the Conference will encompass the very wide field in which the computer plays some part in the study of language and discourse

(lexicography, dialectology, terminology, psycholinguistics, sociolinguistics, contents analysis, authorship problems, studies of manuscripts and various corpora, research in phonology, morphology, syntax, stylistics and semantics, automatic language processing and parsing, specialized software, etc.). The emphasis will, however, be placed on the use of computational methods in the study of texts (lexicometry, linguistic statistics, stylostistics).

Papers

Scholars proposing to read a paper are invited to send to *Etienne BRUNET* (Institute national de la langue française (URL 9), 98, bd E. Herriot, 06007 Nice FRANCE, Tel. (93) 44 89 19 three typed copies of their abstract (no shorter than 1000 words), following the timetable below. In addition to the paper sessions, round tables will be organized. *French* and *English* will be on equal terms as working languages, French being, for obvious geographical reasons, a little more equal.

Timetable:

- 30 November 1984: Abstracts (1000 words) due
- 28 February 1985: Acceptance of papers
- 31 March 1985: Registration deadline

IEEE Computer Society Thirteenth Workshop on Applied Imagery Pattern Recognition

October 22-24, 1984
Sheraton Inn - Washington Northwest
8727 Colesville Road
Silver Spring, MD

The Thirteenth Annual Workshop will focus on the theme: **Image Understanding in Transition**. It is the goal of this workshop to provide a forum for discussion of the important advances in the utilization of image understanding techniques from the last ten years as well as their ever widening scope of application. This year's conference will also include a classified session conducted under the auspices of the Night Vision and Electro-Optics Laboratory. It will focus on military applications of image understanding.

CALL FOR PAPERS

IFAC/IFORS/IFIP International Workshop on: Artificial Intelligence in Economics and Management

March 12-14, 1985
ETHZ, Zurich (Switzerland)

Sponsored by International Federation of Automatic Control (IFAC): Economic and Management Systems Committee (main sponsor), Theory Committee, Social Effects Committee.

Co-sponsored by International federation of operations research societies (IFORS), International federation of information processing (IFIP), Institute of electrical and electronics engineers (IEEE Region 8), Mathematical Programming Society, Battelle Memorial Institute....and others to be announced.

Organized by Swiss Association for Automatic Control (SGA)

International Programme Committee (IPC):

L.F. Pau (CH), Chairman	S. Aida (J)
J.P. Antun (Mexico)	J. Clifford (USA)
J. McDermott, (USA)	H. Donaldson, (UK)
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P.A. Tinsley (USA)	A.B. Whinston (USA)
.....and more announced	

National Organizing Committee: J.-L. Bertez and L.F. Pau

All correspondence should be sent to:

L.F. Pau, IFAC Workshop
Battelle Memorial Institute
7, route de Drize, CH
1227 Carouge/Geneva, Switzerland
Tel.: (41) (22) 43 98 31, Telex: 423 472 batel ch.

Topics

1. AI and Pattern Recognition Methods

- Knowledge representation (economic model structure, ill-structured problems)
- Knowledge acquisition in economics and management, query procedures
- Interfaces (natural language, graphics)
- Planning systems and strategy games
- Expert system design in economics
- Statistical and structural pattern recognition methods in economics
- Basic AI software and hardware (program development environments)
- Economic model building software
- Computer aided learning in economics

2. Applications of AI and PR in Economics and Management

- Economic and management database systems (document handling, natural language queries, connections with decision support systems, library queries)
- Model structures in economics, finance, management using knowledge-based methods
- Economic analysis and forecasting (macroeconomics, microeconomics, trade, finance, management)
- Decision support systems in banking, economics and management (knowledge based design, decision modelling, validation)
- Financial analysis and risk assessment (discrimination, classification, comparative analyses)
- Tax planning, auditing, accounting
- Automatic translation of economic texts, and reasoning inference from texts
- Security screens in banking
- Strategic analysis and strategy games (business games, policy games, planning games, international strategic games)
- Scheduling and planning (job and job-shop planning, logistics, resource planning)

3. Evaluation From a Practical Point of View

- Practical experiences with user friendliness, reliability, cost-benefit
- Case studies relevant for this workshop may be proposed, if background material is prepared, submitted in advance to IPC, and distributed to the participants; see submission time schedule.
- Software demonstrations are welcome if practical arrangements can be made by authors; send abstract following normal procedure.

The official workshop language is *English*. No simultaneous translation will be provided.

Time Schedule

Abstract submission in six copies:	August 1, 1984
Case studies with documentation:	October 1, 1984
Final acceptance:	December 1, 1984
Registration deadline:	February 1, 1985
Workshop:	March 12-14, 1985
Submission of full papers for Proceedings	May 15, 1985

The First KDT International Conference on Automated Image Processing

Conference Center at Alexanderplatz, Berlin (DDR)

Sponsored by the Society for Measurement and Automation (WGMA) of the KDT and by the Kombinat Robotron Dresden. The national Group for Image Processing of the German Democratic Republic is organizing an international conference on Automated Image Processing and Computer Vision. The official languages of the conference will be *German, English and Russian*.

Topics of Interest

The conference is open to all aspects of Image Processing, including

- methods and algorithms
- industrial and technical applications
- medical and biological applications
- hardware
- software

Colleagues interested in participation should contact:
Kammer der Technik/Prasidium

Dipl.-Ing. Klotz
DDR 1086 Berlin

Clara-Zetkin-Str. 115/117
before November 30, 1984 for more information.

First IFSA Congress

July 1-6, 1985
Palma de Mallorca
Balearic Islands, Spain

Sponsored by International Fuzzy Systems Association

Scope

Suggested topics of interest are: *Knowledge Representation; Learning Systems; Approximate and Commonsense Reasoning; Robotics; Expert Systems; Fifth-Generation Systems; Pattern Recognition; Man-Machine Systems; Image Processing and Understanding; Clustering and Classification; Fuzzy Programming; Operations Research and Management Systems; Socio-economic Systems; Decision Making; Fuzzy Controllers; Fuzzy Statistics; Theory of Evidence; Multiple-valued Logics; Possibility Theory; Fuzzy Sets in Mathematics; Fuzzy Logic; Foundations of Fuzzy Sets Theory.*

Submission Details

3 copies of an abstract, no longer than 2-4 pages typed single-spaced and including up to 3 keywords from the above list, should be submitted before the 1 January 1985 to one of the following Program Committee Chairmen:

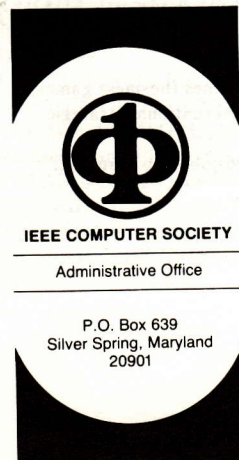
Europe	Americas
H.J. Zimmermann T.W.T.H. Aachen Templergraben 64 D-5100 Aachen Federal Republic of Germany	R. Yager Hagan School of Business Iona College New Rochelle, NY 10801 USA

Asia
M. Sugeno
Tokyo Institute of Technology
Graduate School of Science and Engineering
Department of Systems Science
4529 Nagatsuta, Midori-ku
Yokohama 227, Japan

One additional copy of the abstract should be sent to:

R. Lopez de Mantaras
Chairman of the Organizing Committee
Universitat Politecnica de Catalunya
Facultat d'Informatica
Dulcet, 12
Barcelona-34, Spain
Tel.: (93)249.18.05, ext. 243
Telex: 69121

For further information contact:
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