FROM THE EDITORS DESK

Dear Colleagues,

The lead item in this issue is the forthcoming IAPR sponsored International Conference on Pattern Recognition which will be held in Paris from October 27 to October 31. In addition to the extensive collection of papers, the first day will be devoted to a set of four concurrent tutorials. Also, on the last day, an IAPR sponsored workshop on Expert Systems and Pattern Analysis will be held. This year the conference, which is the main sponsored event of the IAPR, is being organized by AFCET. The calls for papers section in this issue also contains several other IAPR sponsored activities.

A number of changes have been made to the IAPR directory and it is included in this issue in its entirety. Recent additions to the IAPR membership include three individual members. In addition to the 21 national member organizations there are now 5 individual members. Continuing individual members are from Australia and Brazil, and the new members are from Romania, Bulgaria and Taiwan, China.

In all countries with a national member organization, except for the United States, this newsletter is sent to all members of that organization. In the United States the newsletter is distributed to members of the IEEE Technical Committee on PAMI. I have found that many of my colleagues are not aware of either the IAPR newsletter or this technical committee so I have included a note on how to apply for membership. Note that membership must be applied for; it is not automatic even if you are a member of the IEEE Computer Society or if you subscribe to the IEEE Transactions on PAMI. You may wish to pass this information on to your colleagues in the United States since I suspect that there may be a large number of people who would like to receive this newsletter if they were aware of it.

This is the last issue of the newsletter which I will be editing. I wish to express my sincere thanks to Russ
Taylor who has played a major role in the production of the issues which I have edited. The new newsletter editor will be Dr. Josef Kittler. His mailing address is given in the directory.

Anthony P. Reeves

TO RECEIVE IAPR NEWSLETTER IN THE UNITED STATES

In the United States, the IEEE Computer Society Technical Committee on Pattern Analysis and Machine Intelligence circulates the IAPR newsletter to its members as a courtesy. Currently, neither membership in the IEEE Computer Society, nor, as we understand it, in the IEEE, is required to become a corresponding member of the Technical Committee on PAMI, for which the member will receive, amongst other things, the IAPR newsletter. To become a member of the Technical Committee on PAMI, write to the address below, requesting the general Technical Committee Application form.

IEEE Computer Society
1730 Massachusetts Ave. NW
Washington, DC 20036-1903

EIGHTH INTERNATIONAL CONFERENCE ON PATTERN RECOGNITION

CONFERENCE CHAIRMAN'S MESSAGE

The 8th ICPR is one of the major scientific and social event of this fall in Paris. This conference emphasizes the importance of research and application in the field of Pattern Recognition, one of the most active and interesting domain of Computer Science. According to the interest shown in more than thirty countries, we hope to overcome the number of 1,000 participants. This requires a very large effort of all, authors, speakers, reviewers, organizing committee, AFCET secretariat. I wish to thank them warmly for their dedication to this collective effort. I wish also to welcome all the potential participants, who should find what they are expecting from an International Conference of high standing: tutorials, invited conferences, communications, panels, an exhibition, and opportunities to meet the best specialists of the field.

Jean Claude SIMON

TUTORIALS

TUTORIAL ON TEXT RECOGNITION

Date: Monday, 27 October 1986

This tutorial will examine optical character recognition (OCR) in the light of hardware and algorithmic advances that exist today. Specifically, the tutorial will address the question of whether the new machines can rival humans. The nature of the new ideas and processes for OCR, and the industrial realizations will be considered.

Lecturers:

Dr. Wolfgang Doster
Dr. Theo Pavlidis
Pr. J.-C. Simon
Pr. Ching Y. Suen

TUTORIAL ON STATISTICAL PATTERN RECOGNITION

Date: Monday, 27 October 1986

This tutorial will introduce the methodology of statistical pattern recognition. Various design considerations including one-shot vs. Tree classifiers, parametric vs. nonparametric approaches, feature selection, and error estimation will be discussed. Some commercial recognition systems will be considered.

Lecturers:

Dr. R. S. Anbalagan
Dr. P. A. Devijer
Pr. J. Kittler
Pr. A. K. Jain

TUTORIAL ON SPEECH RECOGNITION

Date: Monday, 27 October 1986

This tutorial will review the basic concepts and principles of automatic speech recognition, as well as the major trends in advanced research in this field.

Lecturers:

Pr. R. De Mori
Pr. J. P. Haton
Dr. H. Ney
Pr. G. Perennou

TUTORIAL ON ARTIFICIAL INTELLIGENCE

Date: Monday, 27 October 1986

This tutorial is intended for scientists, engineers, mathematicians, and those involved in information pro-
cessing. It surveys artificial intelligence by presenting key concepts and techniques.

Lecturers:
Pr. S. L. Tanimoto
Pr. N. Cot

IAPR SATELLITE MEETING

WORKSHOP

EXPERT SYSTEMS AND PATTERN ANALYSIS

Date: 31 October 1986
Place: Palais des Congres de Paris

Participants who wish to attend this workshop are requested to contact:

Professor C. H. Chen
Electrical and Computer Engineering Dept. of Southeastern Massachusetts University
N. Dartmouth, MA 02747, USA

GENERAL INFORMATION

Hotel Reservations

Reservations for accommodation in Paris can be made through:
WAGONS-LITS Tourisme
10, rue Auber
75009 - PARIS France

Registration

The registration forms must be accompanied by payment or purchase order. The cost of registration in all categories rises 300 FF after October 6, 1986. Participants are requested to register at the conference as soon as possible after arrival. The Registration Center will be open from 03:00 p.m. to 05:00 p.m. on October 26, 08:30 a.m. to 05:45 p.m. on October 27, and 08:00 a.m. to 09:15 a.m. on October 28.

Secretariat
M. F. Kalogera
C. Van Hieu
AF CET
156 boulevard Pereire
75017 PARIS France
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REPORTS FROM JAPAN

This section contains report titles which have been submitted by corresponding editor Professor M. Nagao. Most of these reports are in Japanese. For further information regarding access to these reports please contact Professor Nagao directly, his mailing address is as follows:

Prof. M. Nagao
Faculty of Engineering, Kyoto University,
Sakyo-ku, Kyoto 606, Japan
The Image Database System for Computer Graphics
Yasunari Shimok, Matsushita Elec. Ind. Co.; Toshiyuki Kawai, Osaka University; Masaki Naito, Osakka University, NEC Co.; Toru Kawata, Osaka University, Sharp Co.; Isao Shirakawa, Osaka University; Koichi Omura, Osaka University.

A Polygonal Approximation Method for Freehand Line Drawings Akira Inoue, Katsumi Nishimura, Kiyoshi Ikuta, Fujitsu Laboratories, Ltd.

Segmentation and Motion Estimation of Multiple Moving Objects Yamamoto Masanobu, Electro-technical Laboratory.

A vision system for bin-picking tasks guided by an interpretation tree from a CAD model Katsushi Ikeuchi, Electro-Technical Laboratory.

A Mathematical Theory of Recognizing Patterns (Part IV: A Primitive Domain of Patterns) Shoichi Suzuki, Department of Management Information, School of Information, Bunkyo University.

Discrimination of Similar Characters by K-L Expansion and Quantification Theory (Type-III) Daisuke Nishiwaki, NIHOH University, Graduate School & College of Sci. & Tech.; Sugio Satoh, NIHOH University, Graduate School & College of Sci. & Tech.; Akiyoshi Itoh, NIHOH University, Department of Electronic Engineering Kenji Kawanishi, NIHOH University, Department of Electronic Engineering.

Recognition Algorithm for Low Quality Stamped Alphanumeric Tomoaki Nakano, Osaka Otsuki, Shin Yamanoto, Toyota Central Research and Development Laboratories, Inc.

Fractal Dimension as an Image Feature Hiroshi Kaneko, Masunosehilo Electrical Communication Laboratory, N.T.T.

3-D Space Analysis by Perspective Moving Frame Takaaki Shikuma, Hiroshi Kaneko, Masunosehilo Electrical Communication Laboratory, N.T.T.

A Method for Recognizing 3-Dimensional Position of a Rigid Body Using The Data Concerned with its Figure T. Hayashi, Department of 1st Prosthetic Dentistry, School of Dentistry, Niigata University; T. Iijima, Department of Computer Science, Faculty of Engineering, Tokyo Institute of Tech.

Algorithm for Seeking Optimal Candidate Sequence Based on the Relational Model among Vocewas Rong Yu and Masaaki Kikumura, Faculty of Engineering, Tohoku University.

Loaded Printed Circuit Board Inspection with 3-D Measurement of Component Orientation Yoshikazu Kakinoki, Moritoshi Ando, Takefumi Inagaki, Fujitsu Laboratories Ltd. Atsugi.


Automatic Off-Line Verification of Signatures Based on Pressure Features Mean Amnar, Yuji Yoshida, and Teruo Fukumura, Faculty of Engineering, Nagoya University.

Automated Construction of Image Processing Procedures by Sample-Figure-Presentation and its Application to Construction of Border Extraction Procedures Jun-ichi Hasegawa, Hirokazu Kubota, Jun-ichiro Toriwaki, Dept. of Information Engineering, Faculty of Engineering, Nagoya University.

Can We Solve The Continuous Karhunen-Loeve Eigen-problem From The Discrete Data? Hidehitsu Ogawa, Tokyo Institute of Technology, Department of Computer Science, Otsuyama, Meguro-ku, Tokyo 152, Japan; Erkki Oja, University of Kuopio, Department of Applied Mathematics, SF-70211, Kuopio 21, Finland.

Binary-Picture Complexity and Image Thresholding Rinko Arai, and Eiji Kawaguchi, Graduate School of Engineering Sciences, Kyushu University.

A Document Image Segmentation Method Based on Projection Profiles and Stroke Densities Teruo Akiyama, Isao Masuda, NTT Electrical Communications Laboratories.

Structure Analysis of Kanji Characters by Means of Stroke Representative Points Yano Ino, Information Processing Network Center, Fujitsu Laboratories.

An Extended Prolog System for Picture Recognition Tsutomu Endo, Faculty of Engineering, Oita University.


3-D Configuration Recovery of 3 Lines Segments on the Image by Perspective Angle Transform Takeda Shikuma, Hiroshi Kaneko, Electrical Communication Laboratories, NTT.

Utilization of a Stripe Pattern for Dynamic Scene Analysis Minoru Ata and Saburo Tsujii, Osaka University.

Local Spatial Fourier Analyses of Images using "Tomographic Representation" K. Okajima, S. Fujiwara, NEC Corp. Fundamental Research Labs.


A Branching Algorithm for Checking Equivalence of Finite-Turn DPDA's Masahiro Igarashi, Eiji Tomin, Takashi Suzuki, Hisayoshi Nishida, The University of Electro-Communications, NEC Corp.

Area-Period Optimal VLSI Circuits for Polynomial Multiplication and Division Koichi Wada, Masahiro Misu, Kimio Kawaguchi, Faculty of Electrical and Computer Engineering, Nagoya Institute of Tech.

On Special-Purpose Hardware for High-Speed Text Retrieval Shin-ichi Wakabayashi, Science Institute, IBM Japan, Ltd.

On Unification Hardware Using UNION-FIND Memory Masaki Ohkubo, Hiroto Yasuura, Naofumi Takagi, and Shuzo Yajima, Faculty of Engineering, Kyoto University.

Synthesis Methods of Systolic Algorithm Daisuke Murai, Hirokoma Aso, Tatsuyoshi Inagaki, Faculty of Engineering, Nagoya University.

Design of an nMOS Image Processor Based on Quaternary Logic Takahiro Hayami, MichiLabo Kameyama, Tatsumo Higuchi, Faculty of Engineering, Tohoku University.

Architecture of A List-Processing Oriented Dataflow Machine Hirohide Mikami, Masaru Takesue, Ryusou Hasegawa, Makoto Amamiya, NTT Electrical Communications Laboratories.

On the Pipelined Image Processing Algorithms and Their Applications Akira Nakayama, Yuji Yoshida, Teru Fukumura, Department of Information Engineering, Faculty of Engineering, Nagoya University.
An Architecture for a Graphics Processor SIGHT Toki-ichiro Takahashi, Tadashi Naruse, Masaharu Yoshida, and Seeichiro Naito, Electrical Communication Laboratories, NTT.

System Architecture for Automatic Drawings Reader Shigeoishi Shimazuy, Akio Okazaki, and Shou Tsunekawa, Research and Development Center, Toshiba Corporation.

Fingerprint Identification for Personal Verification Koko Morita, Ko Anai, NEC Corporation C&C Systems Research Laboratories.

Extraction of Line Figures in a Binary Image and Its Applications Tadao Wakayama, NTT Electrical Communications Laboratories.

Recognition method using tree representation English small letters Tadashi Suzuki, Kyoto Aoki, Faculty of Engineering, Waseda University.

A New Representation Method of Color pictures for Color Reproduction Keiji Yamada, Michihiko Minoh, Toshiyuki Sakai, Faculty of Engineering, Kyoto University.

Extraction and Binarization of the images of Line drawings using Local gray-level patterns Hiroshi Okazaki, Michihiko Minoh, Toshiyuki Sakai, Faculty of Engineering, Kyoto University.


Stereo Vision of a Mobile Robot World Constraints for Matching Jiong Yu Zheng, Minoru Asada, and Saburo Tsuj, Department of Control Engineering, Osaka University.

On the rough classification of handwritten characters based on partial and unified informations Toshikatsu Ejima and Masayuki Kimura, Faculty of Engineering, Tohoku University.

Online Deformation Prediction Matching Using Deformation Vector Field Toru Wakahara, Kazumi Odaka, NTT Electrical Communications Laboratories.

A Method of Stroke Extraction for Hand-written Character -Design of Rule-based Knowledge Base Junzo Suzuki, Yosihiro Kitamura, Yoshikazu Tazuka, Faculty of Engineering, Osaka University.

A Study of Computer Assisted Design System for Brush-written Chinese Characters Koji Kitagawa, Takashi Inoue, Hidehiko Sanada, Yoshikazu Tazuka, Faculty of Engineering, Osaka University.

A Study on Recognition System of Visit. Card Image Yoshnori Sakurai, Koichi Kito, Koichi Murase, Naoki Tanaka, Hidehiko Sanada, Yoshikazu Tazuka, Faculty of Engineering, Osaka University.

A Proposal of Character Segmentation from Handwritten Document Image with Aid of Knowledge Noboru Babaguchi, Masatoshi Tsukamoto, Tsunei Bokia, Faculty of Engineering, Ehime University.

Accumulation, Retrieval and Transformation of Name List Image Hui Shih, Yasuo Artki, Toshiyuki Sakai, Faculty of Engineering, Kyoto University.

Polyhedron classification by using vector field Toshikatsu Minura, Yoshio Watanabe, Shozo Hogi, Faculty of Engineering, Doshisha University.

Recognition of Vowels and Plosives Using One Pair Comparison Shigeoishi Kitazawa, Faculty of Engineering, Shizuoka University; Masahiko Ishikawa, Faculty of Engineering, Kyoto University; Hiroshi Kojima, Faculty of Engineering, Kyoto University; Shuji Dohi, Faculty of Engineering, Kyoto University.


A Series of Digital Filter Windows Constructed of B-Splines Katsuo Torachi, Institute of Information Sciences and Electronics, University of Tsukuba; Masaru Kamada, Doctoral Program in Engineering, University of Tsukuba; Ryosichi Mori, Institute of Information Sciences and Electronics, University of Tsukuba; Claudio Moriba, Foreign Student in Information Sciences and Electronics, University of Tsukuba.

A Spline Function Generator Katsuo Torachi, Institute of Information Sciences and Electronics, Univ. of Tsukuba; Masaru Kamada, Doctoral Program in Engineering, Univ. of Tsukuba; Qi Wang, Institute of Information Sciences and Electronics, Univ. of Tsukuba; Ryosichi Mori, Institute of Information Sciences and Electronics, Univ. of Tsukuba.

A model estimation of gray-level image using pulse density modulation Junji Kawasaki, Kanazawa Institute of Technology; Taiso Iijima, Tokyo Institute of Technology.

A Method for Recognizing 3-Dimensional Position of a Rigid Body Using Its Shape Part 2. Error Analyis and Optimizatoin of the Observation System Toyohiko Hayashi, Department of 1st Prosthetic Dentistry, School of Dentistry, Niigata Univ; Taiso Iijima, Department of Computer Science, Faculty of Engr, Tokyo Institute of Technology.

A Study of Character Extraction Method from Scene Images Jun Ohy, Akio Shio, NTT Electrical Communications Laboratories.

A Fundamental Study on Capacity of Template Matching Method for Handprinted KANJI Recognition Multidictionary Templet Matching Method using A Supercomputer Mitsuru Shiona, Okayama University of Science.


The Three Types of Relationships Among Japanese Vowels and Their Invaliability Rong Yu and Masayuki Kimura, Faculty of Engineering, Tohoku University.

Improvement of Online Recognition of Piecewise-Linear-Approximated Cursive Writings Yasuhiro Kawan, Yukio Sato, Department of Electrical and Computer Engineering, Nagoya Institute of Technology.

Handprinted Character Recognition fitted to the writer (III) Hiroo Morita, Shinji Tsuruko, Fumitaka Kimura, Yasuji Miyake, Faculty of Engineering, Mie University.

Preclassification of Handwritten Chinese Characters by Clustering Technique Akira Nishi, Shinji Tsuruko, Fumitaka Kimura, Yasuji Miyake, Faculty of Engineering, Mie University.

High-Speed Display Algorithm for Displaying a Road Map Angelica Yamaji, Fumitaka Kimura, Shinji Tsuruko, Yasuji Miyake, Faculty of Engineering, Mie University.
- Integrated System of Weather Map Database and Contour Map Database. Toshihiko Hata, Takashi Togawa, University of Osaka Prefecture.

- Graphic Symbol Recognition of Logical Diagrams by Using Positive and Negative Symbol Set. Nobuo Takagi, Michihiko Miyoshi, and Toshikazu Sakai, Faculty of Engineering, Kyoto University.

- Development of a recording system for radiographic diagnosis information with direct entry onto a displayed image. Fuyuki Takahashi, Jun-ichi Hasegawa, Jun-ichiro Toriwaki, Faculty of Engineering, Nagoya University; Yoshiho Takagi, Higashi Nagoya National Hospital.

- An Improvement of Automated Interpretation System for Digital Chest X-Ray Images and Effects of Spatial Frequency Enhancement on System Performance. Osamu Horii, Jun-ichi Hasegawa, Jun-ichiro Toriwaki, Faculty of Engineering, Nagoya University; Yoshiho Takagi, Higashi Nagoya National Hospital.

- High-precision surface formation and its 3-D shaded display of brain obtained from CT images. Noboru Niki, Kiyotada Higashi, Tomoaki Tanase, Yoshio Takahashi, Faculty of Engineering, Tokushima University.

- 3-D Object Data Input Method Using Back Mirrors. Takashi Agui, Tomohito Saito, Masayuki Nakajima, Imaging Science and Engineering Laboratory, Tokyo Institute of Technology.


- Planning of Observation by a Mobile Robot. Makoto Tazumi, Masahiko Tachida, Saburo Tsujii, Osaka University.

- On Region Attribute Description Method For Image Storage and Retrieval System of Textile Pattern. Ken-ichi Arakawa, Yoshitomo Okada, Toshihiko Sakai, Faculty of Engineering, Kyoto University.

- On Retrieval Method Using Color Name For Image Storage and Retrieval System of Textile Pattern. Ken-ichi Arakawa, Yoshitomo Okada, Toshihiko Sakai, Faculty of Engineering, Kyoto University.


- An Experimental Implementation of English-Documents Filing System with Character Recognition. Masayuki Okamoto, Masahiro Tamai, Faculty of Engineering, Shinshu University.


- Handwriting Image Data Detection from Video Image. Hiroshi Aragawa, Masashi Yamazaki, Hideyoshi Tominaga, School of Science and Engineering, Waseda University.


- The Extraction of Distance Using Image Clearness. Motiyuki Matsuo, Katsumi Miyamae, Toykai University.

- A High Speed Stereo Image Matching System Based on Dynamic Programming. Yuzo Ohta, Kenji Takano, Katsu Ikeda, Institute of Information Sciences and Electronics, University of Takuoka.

- Trinocular Vision using Edge Continuity and Local Features. Yoshifumi Kitamura, Masatoshl Kinashl, Masakazu Yachida, Faculty of Engineering Science, Osaka University.

- Shape Analysis of Human Bodies Using Pseudodistance Measures. Yukio Sato, Nagoya Institute of Technology; Emiko Tsutsumi, Otsuma Women's University.

- Road Image Analysis. Yuriko Usui, Hiroshi Hata, Shinji Ozawa, NEC Corporation; Keio University.


- Computer Processing for 3-D display of Magnetic Resonance Images by use of multiplex holography. Hiroshi Orihata, Shigeki Yokoi, Jun-ichiro Toriwaki, Faculty of Engineering, Nagoya University; Michimasa Matsuo, Nagoya City University, Medical School.


- An Interactive Pattern Processing System With Control Modules For Recognition of Weld Defects in Radiographic Inspection. Kazuhiro Murakami, Hiroyo Koshimizu, Nagoya Municipal Industrial Research Institute; Kinki Hoejewa, Chukyo University.

- Spoken English Sentence Recognition by Time-Synchronous Parsing Algorithm of Context-Free Grammar. Seiichi Nakagawa, Department of Information and Computer Science, Toyohashi University of Technology.


- Structure Analysis of Drawings Using Structural Knowledges. Masashi Morimoto, Yasuo Arkki, Toshihiko Sakai, Faculty of Engineering, Kyoto University.


- A Study on Similar Characters Discriminating by Quantification Theory. Datuku Nishiwaki, Niho1 University, Graduate School & College of Sci. & Tech., Akiyoshi Ishihara, Kenji Kawanishi, Nihon University, Department of Electronic Engineering.

- On The Probability Theoretical Interpretation of the Quantification Methods. Takio Kurita, Hideki Aso, Nobuyuki Otsu, Electrotechnical laboratory.

- Approximate Solutions to Weighted Graph Matching Problems Using Eigen-Expansion Approach. Shinji Umeayama, Electrotechnical Laboratory.

- Can We Solve The Continuous Karhunen-Loeve Eigenproblem from Degraded Discrete Data? Hidekatsu Ogawa, Konchi Tanaka, Tokyo Institute of Technology, Department of Computer Science, Ookayama, Meguro-ku, Tokyo 152, Japan.
CALLS FOR PAPERS

International Workshop on Industrial Applications of Machine Vision and Machine Intelligence

Roppongi, Tokyo, Japan - February 2-4, 1987

Program:
An International Workshop on Industrial Application of Machine Vision and Machine Intelligence will be held at the Institute of Industrial Science, the University of Tokyo, February 2-4, 1987. The Workshop is co-sponsored by IEEE Industrial Electronics Society, and IIS (the Institute of Industrial Science, the University of Tokyo). The main objective of the workshop is to stimulate international and inter-fields discussions and attract high quality papers on current topics in these fields. The emphasis of the Workshop will be on practical and basic techniques applicable to Machine Vision, Machine Intelligence and Signal Processing as used in industries.

Program Topics:
The meeting will cover the following topics of interest:

- Vision Technology
- Image Processing, Image Understanding and their Industrial Applications
- Intelligent Robot, Inspection
- Image Database, Utility Management
- Industrial Applications of Graphics Technology, etc.
- AI Technology
- Industrial Applications of Artificial Intelligence
- Intelligent CAD, Diagnosis, etc.
- Signal Processing Technology
- Data Acquisition, Signal Processing
- Industrial Applications of Digital Signal Processor & Microprocessor

Deadlines:
Those wishing to present papers at the workshop have to submit 4 copies of a 400-word abstract, not later than September 1, 1986. Final manuscripts must be received by December 15, 1986.

Submission of Abstracts:
Prof. Masao Sakauchi
Institute of Industrial Science
University of Tokyo 22-1
Roppongi 7-chome
Minato-ku, Tokyo 106, Japan

1987 IEEE International Conference Robotics and Automation

Raleigh, North Carolina
March 30 - April 3, 1987

Program:
Basic and applied papers in all areas of robotics and automation are solicited. The organizers encourage submission from representatives of industry, universities, research institutions, and government. The conference will host tutorials and workshops, in addition to conference sessions.

Program Topics:
Basic and applied papers in all areas of robotics and automation are solicited. Specific topics include, but are not limited to the following:

- Computer Vision in Robotics
- Robotic Sensing
- Robotic and Automation Systems Design
- Flexible Manufacturing Systems
- Simulation Languages
- Man-Machine Interface
- Mobile Robots
- Expert Systems in Design, Diagnosis, and Planning
- Application of Robotics

Deadlines:
October 1, 1986 4 Copies of Papers
December 15, 1986 Notification of acceptance
January 19, 1987 Final camera-ready papers

Submission:
Paper submission:
Arthur C. Sanderson
The Robotics Institute
Carnegie-Mellon University
Schenley Park
Pittsburgh, PA 15213 USA

Proposals for tutorials, and workshop participation:
Prof. A. Desrochers
Rensselaer Polytechnic Institute
Electrical, Computer, & Systems Engineering
Troy, NY 12180 USA
5th Scandinavian Conference on Image Analysis

Grand Hotel, Saltsjöbaden - June 2-5, 1987

Program Topics:
The meeting will cover the following topics of interest:

- Computer Vision
- Image Processing
- Pattern Recognition
- Perception
- Remote Sensing
- Industry
- Robotics
- Medicine and Biology
- Office Automation
- Systems and Hardware

More Information:
For information concerning participation, please contact:

Dr. Torleiv Orhaug
Conference Chairman
National Defence Research Institute
P.O. Box 1165
S-581 11 Linkoping
Sweden

The First International Conference on Computer Vision


Program:
The program will consist of invited review papers and high-quality contributed papers on all aspects of computer vision. All papers will be refereed by members of the Program Committee. To avoid conflicts, it is not planned to hold parallel sessions. A special feature of the program will be a set of invited talks on human perception and biological vision systems, as a continuation of the highly successful series of Workshops on Human and Machine Vision.

The Conference:
ICCV is the first International Conference devoted solely to computer vision. It is sponsored by the IEEE Computer Society in cooperation with the International Association for Pattern Recognition (IAPR). It will be held in odd-numbered years, alternating with the IEEE Computer Society Conference on Computer Vision and Pattern Recognition (CVPR).

Deadlines:
December 15, 1986  
4 complete drafts
early February  
Notification of acceptance
early March  
Final camera-ready copies

Paper Submission:

Azriel Rosenfeld
Center for Automation Research
University of Maryland
College Park, MD 20742

Information Processing in Medical Imaging

Utrecht, The Netherlands - June 22-26, 1987

Program:
The conference format will be workshop-like. Approximately 30 full papers and 10 works in progress will be presented. Extensive discussion of the contributions will be encouraged. The conference attendance will be limited to 100 participants.

Program Topics:
- General image processing and analysis
- Pattern recognition and statistical methods
- Image display methodology
- New medical image formation methods
- 3D imaging and tomography
- Analysis of image time-series
- Expert systems
- Picture archiving and communication systems

Deadlines:
November 15, 1986  
Abstracts
March 1, 1987  
Applications
**Information:**
Cornelis N. de Graf  
University Hospital  
K. 73078  
Catharijnesingel 101  
3511 GV Utrecht  
The Netherlands

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**IV International Conference On:**  
**Image Analysis and Processing**

Cefalu - Sicily, Italy - September 23-25, 1987

**Program:**
The Conference is organized by the Italian Chapter of the IAPR and is sponsored by the Palermo University and the Italian National Research Council (CNR).

The aim of the conference is to cover both methodological and applicative aspects of pattern recognition and image processing.

**Program Topics:**
The meeting will cover the following topics of interest:

- Pattern Recognition
- Computer Vision and Image Processing
- Non conventional computer architectures for LP.
- Language for image abstractions, processing and retrieval
- Theoretical methods and their relations with P.R.
- Applications in several fields are welcomed.

**Deadlines:**
December 31, 1986  
Final version

June 30, 1987  
Full paper (3 copies)

**More Information:**
Vito Di Gesu’  
Dipartimento di Matematica e Applicazioni  
Università di Palermo  
90123, Palermo  
Italy
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Location</th>
<th>Sponsor/Information</th>
</tr>
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<tbody>
<tr>
<td>Sept. 21 - Oct. 4, 1986</td>
<td>NATO Advanced Study Institute Mathematics and Computer Science in Medical Imaging</td>
<td>II Ciooco, Italy</td>
<td>Max A. Viergever, Delft University of Technology, Dept. of Mathematics &amp; Information, P.O. Box 356, 2600 AJ Delft, The Netherlands, Tel: +31 15 784114</td>
</tr>
<tr>
<td>Oct. 26-30, 1986</td>
<td>Fifth World Congress on Medical Informatics (MEDINFO 86)</td>
<td>Sheraton Washington Hotel, Washington, DC</td>
<td>MEDINFO 86 Organizing Committee c/o George Washington University Medical Center Office of Continuing Medical Education 2300 K Street, N.W. Washington, DC 20037</td>
</tr>
<tr>
<td>Oct. 27-31, 1986</td>
<td>Eighth International Conference on Pattern Recognition</td>
<td>Palais des Congres, PARIS, France</td>
<td>Sponsored by IAPR and AFCET, secretariat: M. F. Kalogeras, 156 boulevard Pereire, 75017 PARIS, France</td>
</tr>
<tr>
<td>Nov. 2-6, 1986</td>
<td>ACM - IEEE Computer Society 1986 Fall Joint Computer Conference</td>
<td>Infomart, Dallas, Texas USA</td>
<td>Dr. S. Winkler, Conference Chair FICC'86, IEEE Computer Society, 1730 Massachusetts Ave. NW, Washington, DC 20036-1903 USA, Tel: (202) 371-0101</td>
</tr>
<tr>
<td>Dec. 2-6, 1986</td>
<td>Image Processing Symposium as part of the 2nd International Technical Symposium on Optical and Electro-Optical Applied Science and Engineering</td>
<td>Palais des Festivals et des Congres, Cannes, France</td>
<td>SPIE P.O. Box 10 Bellingham, WA 98227-0010 Association Nationale de la Recherche Technique 101, Avenue Raymond Poincare 75116 Paris, France</td>
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<tr>
<td>Feb. 2-4, 1987</td>
<td>International Workshop on Industrial Applications of Machine Vision and Machine Intelligence</td>
<td>Roppongi, Tokyo, Japan</td>
<td>Prof. Masao Sakauchi, Institute of Industrial Science, University of Tokyo 22-1, Roppongi 7-chome, Minato-ku, Tokyo 106, Japan</td>
</tr>
<tr>
<td>Mar. 30 - Apr. 3, 1987</td>
<td>1987 IEEE International Conference on Robotics and Automation</td>
<td>Radisson Hotel and Civic Center, Raleigh, NC, USA</td>
<td>Harry Hayman, 738 Whitaker Terrace, Silver Spring, MD 20901, USA</td>
</tr>
<tr>
<td>June 2-5, 1987</td>
<td>5th Scandinavian Conference on Image Processing</td>
<td>Grand Hotel, Saltsjobaden, Sweden</td>
<td>Dr. Torleiv Orhaug, Conference Chairman, National Defense Research Institute, P.O. Box 1165, S-581 11 Linkoping, Sweden</td>
</tr>
<tr>
<td>June 8-11, 1987</td>
<td>The First International Conference on Computer Vision</td>
<td>London, England</td>
<td>Papers to: Azriel Rosenfeld, Center for Automation Research, University of Maryland, College Park, MD 20742</td>
</tr>
<tr>
<td>June 22-26, 1987</td>
<td>Information Processing in Medical Imaging</td>
<td>Utrecht, The Netherlands</td>
<td>Cornelis N. de Graaf, University Hospital, K. 73078, Catharijnesingel 101, 3511 GV Utrecht, The Netherlands, Tel: +31 30 372846</td>
</tr>
<tr>
<td>Sep. 23-25, 1987</td>
<td>IV International Conference on Image Analysis and Processing</td>
<td>Cefalu, Sicily, Italy</td>
<td>Vito Di Gesu, Dipartimento di Matematica e Applicazioni, Università di Palermo, 90123, Palermo, Italy</td>
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