

Newsletter 31

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Dear TC10 members and friends,

IWGR and ICDAR are very close now and I think this is the last mailout before these events. After this interesting period, we will hopefully have lots of things to report, both about what happened and what is planned. But let me send out now everything which has accumulated since last mail.

Before starting the regular mailout, a special announcement to those of you who are members of the IEEE Computer Society. Our colleague and friend Theo Pavlidis has been nominated as one of the two candidates for first vice president of the IEEE Computer Society. The election is by mail ballot and few people return their ballots (usually 15-20%), maybe because they most of the time do not know the candidates. But this time, there is a candidate whom many of us know, and hence you may have an opinion about this candidate! So maybe this mail will remind you to vote...

The next ICPR will be held in Vienna in August 1996. Here is the first CFP:

13th INTERNATIONAL CONFERENCE on PATTERN RECOGNITION
Technical University of Vienna, Austria
August 25 - 30, 1996

General Chair: Walter Kropatsch, Technical University of Vienna, Austria
Honorary Chair: Azriel Rosenfeld, University of Maryland, USA
Program Chair: Yiannis Aloimonos, University of Maryland, USA
Program Co-Chair: Ruzena Bajcsy, University of Pennsylvania, USA
Local Organizer: Horst Bischof, Technical University of Vienna, Austria

Contributions are sought on new research in all aspects of the broad field of Pattern Recognition. The ICPR'96 will consist of four parallel conferences of previously unpublished contributed papers, delivered either orally or as a poster, as well as invited papers of general or specific interest. The program for each individual conference will be organized by its own Program Committee. The opening session and the social events are common to all four conference parts. In addition, a set of tutorial sessions, given by prominent researchers in the field, will be offered during the day prior to the actual conference (Sunday). Specialized workshops, organized by technical committees, will be held in the local surroundings of Vienna during the week before the conference. The results of these workshops will be reported during the conference. The conference proceedings will be published by the IEEE Computer Society Press.

PAPER SUBMISSION

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Paper submission deadline: January 15th, 1996
Notification of acceptance: April 1996
Camera-ready copy: May 1996

Send six copies of the paper to: 13th ICPR'96, c/o AUSTROPA Interconvention
A- 1043 Vienna, Friedrichstrasse 7, PoB 30,
Austria/Europe

Papers should not exceed 15 pages (12 pt, 1 1/2 line spacing) and in the first page they should include the names of the author(s) along with affiliations and e-mail addresses. In addition to the manuscript the submission should include a summary page answering the following questions (please answer each question separately):

- What is the original contribution of this work?
- What is the most closely related work by others and how does this work differ?
- Which track or tracks and which topics within a track are most appropriate for the submission? (The Conference is not limited to these topics and authors may specify that a paper falls in two or more categories not listed. Categories are used to best match papers with the expertise of the reviewers.)

Test data will be made available by WWW at

<http://www.prip.tuwien.ac.at/icpr/icpr.html>.

This WWW page provides pointers to data around the world which should facilitate a comparison of results.

Authors are kindly requested to register before submitting their final paper.

For further information on all ICPR conferences contact the secretariat at the above address or use e-mail: icpr@prip.tuwien.ac.at

CONFERENCE DESCRIPTIONS

COMPUTER VISION

Program Chairs: Alex Pentland (MIT, USA)
James L. Crowley (INPG, France)

Topics:

Action Recognition
Active Vision
Analysis of Visual Motion
Biological Models for Machine Vision
Control of Perception
Invariants and Geometry
Learning in Computer Vision
Object Recognition
Real-Time Vision
Shape Representation and Computation
Vision Systems that Learn
Visual Computation of Range and Geometry

Program Committee Members:

F. Ade T. Huang
M. Asada M. Inoue
P. Bhouthermy R. Jain
M. Bichsel K. Mase
A. Blake S. Nayar
P. Burt S. Peleg
R. Chellappa R. Picard
B. Draper T. Poggio
R. Deriche G. Sandini
S. Dickinson S. Sclaroff
J. O. Eklundh M. Shah
F. Ferrie L. Shapiro
W. F"orstner S. Smoliar
E. Granum G. Sullivan
I. Guerevitch C. Thorpe
D. Hogg L. Van Gool

PATTERN RECOGNITION AND SIGNAL ANALYSIS

Program Chairs: Josef Kittler (Univ. of Surrey, U.K.)
Harry Wechsler (G. Mason Univ., USA)

Topics:

Feature Detection
Filtering
Mathematical Morphology
Multiresolution Methods
Signal Coding, Compression,
Enhancement and Restoration
Speech Analysis
Statistical and Syntactical
Pattern Recognition
Texture Analysis
Wavelets

Program Committee Members:

J. Ben-Arie P. Meer
J. Bigun H. Niemann
H. Bunke M. Petrou
D. Chetverikov M. Pietikainen
S. De Ma R. Plamondon
P. Devijver P. Pudil
R. Duin T. Pun
E. Hancock B. Radig
R. Haralick S. Raudys
A. Jain A. Sanfeliu
M. Kidode G. Sanniti di Baja
H. Knutsson J. Sklansky
M. Kunt H. Tsui
S. W. Lee R. Wilson

APPLICATIONS AND ROBOTIC SYSTEMS

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Program Chairs: Ruud Bolle (IBM, USA)
E. Dickmanns (Univ. d. Bundeswehr, Germany)

Topics:

Automation
Image Database Systems
Medical Applications
Mobile Robots
Multi-media Systems
OCR and Document Processing
Quality Control
Range Imaging
Real-Time Systems
Remote Sensing Applications
Smart Sensors

Program Committee Members:

K. Abe K. Mohuidin
H. Araujo R. Nelson
E. Backer W. Niblack
A. Basu H. Niemann
S. Castan S. Orphanoudakis
H. Christiansen M. Pietikainen
J. Connell Y. Shirai
K. Daniilidis M. Spetsakis
M. Ejiri S. Tamura
G. Garibotto T. Taxt
D. Grossmann R. Taylor
L. P. Kaelbling S. Tsuji
A. Kak B. Vemuri
R. Kasturi L. Warnstam
F. Leberl M. Yachida
G. Medioni

PARALLEL AND CONNECTIONIST SYSTEMS

=====

Program Chairs: Michael Seibert (MIT, USA)
Georg Hartmann (Univ. of Paderborn, Germany)

Topics:

Associative Memories
Biological Models
Cellular Structures
Highly Parallel Architectures
Learning Systems
Multiprocessor Systems
Multisensor Architectures
Neural Networks
Parallel Algorithms and Languages
Perceptual Models
VLSI Architectures

Program Committee Members:

I. Aleksander C. v. d. Malsburg
E. Bienenstock J. Marshall
H. Buelthoff E. Mingolla
J. M. Buhmann E. Oja
G. Carpenter S. Omohundro
K. Fukushima G. Palm
S. Gielen H. Ritter
M. Gross S. Rogers
D. Hammerstrom W. v. Seelen
K. Johnson D. Stork
J. Koenderink J. Taylor
R. Linsker Y. Zeevi
R. Lippmann

Here is the CFP for a special issue of CVIU:

>From: dnm@graphics.cis.upenn.edu (Dimitris Metaxas)
>Subject: Special issue of CVIU

CALL FOR PAPERS

Special Issue of COMPUTER VISION AND IMAGE UNDERSTANDING on
PHYSICS-BASED MODELING AND REASONING IN COMPUTER VISION

Physics-based techniques have emerged as a major trend in computer
vision and related fields because of their effectiveness in object

representation, image segmentation, shape estimation, motion analysis, and object recognition, as well as in application areas such as medical imaging.

Papers are solicited for a special issue of Computer Vision and Image Understanding on the subject of Physics-Based Modeling and Reasoning in Computer Vision. The Guest Editors for the special issue are Dimitri Metaxas of the University of Pennsylvania and Demetri Terzopoulos of the University of Toronto.

The purpose of the special issue will be to showcase new physics-based methodologies for the analysis of complex scenes. Of particular interest is research on the integration of physics-based modeling and reasoning techniques to improve the results of shape and motion estimation and object recognition in scenes with multiple objects and significant occlusion.

All submissions will be refereed in accordance with the CVIU guidelines. Manuscripts will not be accepted if they have been previously published, or if they present algorithms that have not been evaluated on complex scenes. Possible topics for submitted papers include, but are not limited to

- 1) physics-based segmentation and shape representation of multiple objects in complex scenes with occlusion;
- 2) physics-based motion estimation and object tracking in scenes with multiple rigid and/or nonrigid objects;
- 3) integration of physics-based modeling, reasoning and recognition techniques;
- 4) applications: medical image analysis; analysis and recognition of faces, gestures, etc.

Please submit four copies of your paper to:

Professor Dimitri Metaxas
Dept. of Computer and Information Science
University of Pennsylvania
200 South 33rd St.
Philadelphia, PA 19104-6389
U.S.A.

Schedule:

Deadline for submission of manuscripts: October 30, 1995
First set of reviews to authors: January 30, 1996
Final manuscripts due: April 30, 1996
Publication of special issue: December, 1996

For further information, please contact

Dimitri N. Metaxas (dnm@central.cis.upenn.edu)
or
Demetri Terzopoulos (dt@vis.toronto.edu)

I have received both a CFP for ICASSP'96 and a call for tutorials for this same conference:

>From: "Monty Hayes" <mhh3@eedsp.gatech.EDU>
>Subject: ICASSP-96

----- CALL FOR PAPERS ICASSP-96 in Atlanta Georgia -----

This is a reminder that the deadline for submitting papers to ICASSP-96 in Atlanta is

AUGUST 15, 1995

A 2-3 page paper summary along with a paper summary cover sheet should be mailed to

ICASSP-96
Meeting Management
2603 Main Street, Suite 690
Irvine, CA. 92714 USA

The paper summary cover sheet and more detailed information may be found in

- IEEE Transaction on Signal Processing (May and June)
- IEEE Transaction on Image Processing (May and June)
- IEEE Signal Processing Letters (July)
- Proceedings of ICASSP-95

In addition, the latest information on ICASSP-96 may be found on the World Wide Web at URL

<http://www.ee.gatech.edu/conferences/icassp96>

You may also request information by sending e-mail to

icassp96-info@eedsp.gatech.edu

or obtain files such as the Call For Papers by anonymous ftp at

ftp.eedsp.gatech.edu

The files are

call_for_papers.ps
summary.ps

There is also a LaTeX style file for the summary sheet,

icasspcover.sty

If you need any more information, feel free to contact me or another member of our committee.

We are very excited about the program that is being assembled and hope that you will be able to join us in Atlanta.

In addition to the regular technical sessions, there will be plenary talks each day, an exciting and affordable banquet and awards ceremony that we hope most of you will be able to attend, tutorials on Monday May 6 that will be of special interest to Signal Processing Society Members along with some Tutorials on Saturday May 11 that will be of interest to SP Members as well as to CAS Members (In case you had not heard, ISCAS-96 will be held in Atlanta at the same hotel from May 12-15).

While in Atlanta, you will also have the opportunity to visit the CNN Studio, the 1996 Olympic Village, Underground Atlanta, the Coca-Cola Museum, and other areas of interest.

We look forward to seeing you in Atlanta at ICASSP-96.

With Best Regards,

M.H.Hayes
Chairman, ICASSP-96

>From: "Monty Hayes" <mhh3@eedsp.gatech.EDU>

----- CALL FOR TUTORIALS for ICASSP-96 in Atlanta Georgia -----

The ICASSP-96 Organizing Committee invites interested researchers to submit a proposal for an ICASSP-96 Tutorial. Tutorials of interest to our Signal Processing Society members will be held on Monday, May 6. Traditionally, these tutorials have been 3 hours in duration.

In addition to the Monday tutorials, we are planning to have some tutorials on Saturday, May 11, that are of mutual interest to members of the Signal Processing Society as well as the Circuits and Systems Society (ISCAS-96 begins on Sunday, May 12 in Atlanta at the Marriott Marquis Hotel).

If you are interested:

I. Please submit an ICASSP-96 Tutorial Proposal by August 15, 1995

II. the proposal should be 2-3 pages in length, and contain the following information:

- 1) Title
- 2) presenter (include name, address, phone, fax, email)
- 3) Summary & Purpose
- 4) Novelty & Currency of the Tutorial
- 5) Intended Audience
- 6) Outline
- 7) Materials to be provided (copies of slides, papers, audio/visuals, etc)
- 8) Short Biographical Sketch

All presenters of tutorials receive an honorarium.

Submit 3 copies to:

John H.L. Hansen
ICASSP-96, Tutorials Chair
Duke University
Robust Speech Processing Laboratory
Department of Electrical Engineering
Box 90291
Durham, North Carolina 27708-0291 U.S.A.

internet email: jhlh@ee.duke.edu
Phone: 919-660-5256
FAX: 919-660-5293

Yet another CFP:

GKPO'96:
4th International Conference on
Computer Graphics and Image Processing

Conference Information and Call for Papers

The 4th GKPO'96 Conference intends to group the best researchers active in the field of pictorial information exchange between computer and its environment. The number of participants is limited to no more than 100 persons.

The reviewing process and strict acceptance criteria ensure high quality of the accepted papers (only about half of the submitted papers were accepted for the previous GKPO'94 Conference).

The conference will be a forum for presentation of theoretical aspects, methods, applications and systems of image processing. Unpublished research papers are solicited, particularly concerning the following topics:

Physical models of image formation
Physical-based machine vision
Image enhancement, restoration and compression
Image analysis and modeling
Active vision and understanding
Pictorial data bases and archivisation
Modeling of human visual perception and mental imagery
Image synthesis, 3D imaging and reconstruction
Virtual reality and pictorial interaction
Visualization and graphical data presentation
Diagrammatic knowledge representation and reasoning
Parallel and neural networks image processing
Computational geometry
Computer-aided graphic arts and animation

The programme will include: invited papers by leading researchers, selected contributions, exhibition of software and hardware products, and social events.

Conference information

Date: 20-24 of May, 1996

Location:

Machocice near Kielce,
a little resort in Swietokrzyskie Mountains, about 180 km south
of Warsaw

Submissions:

Authors are requested to submit three copies of manuscript in English (max. 8 pages). Upon acceptance by the reviewers and programme committee, authors will be asked to submit a PC diskette (in DOS format), containing the text of the paper, prepared with LaTeX (an ASCII form of the text is admissible too), with pictures in PCX format (at 600 dpi), in accordance with Instruction for Authors of the journal Machine GRAPHICS & VISION.

Proceedings:

Proceedings of the Conference will be published as a special issue (Vol. 5, Nos. 1/2) of the Machine GRAPHICS & VISION Journal.

Deadlines:

Declaration form: 31 July 1995

Paper submission: 30 October 1995

Notification of acceptance: 30 January 1996

Conference Organizing Committees and Addresses

Conference Chair:

W. MOKRZYCKI (PL)

Programme Committee Chair:

J.L. KULIKOWSKI (PL)

Programme Committee:

S. Ablameyko (BY)

D. Chetverikov (H)

L. Chmielewski (PL)

R. Choras (PL)

A. Gagalowicz (F)

E. Grabska (PL)

M. Jankowski (PL)

J.-M. Jolion (F)

R. Klette (D)

Z. Kulpa (PL)

W. Kwiatkowski (PL)

W. Malina (PL)

K. Marciniak (PL)

A. Newton (UK)

J. Owczarczyk (PL)

P. Pachowicz (USA)

R. Paleniczka (UA)

J. Punys (Lt)

G. Sommer (D)

K. Tombre (F)

D. Velichova (Sk)

R. Winiarczyk (PL)

J. Wnek (USA)

K. Wojciechowski (PL)

J. Woznicki (PL)

J. Zabrodzki (PL)

W. Zamojski (PL)

M. Zaremba (CND)

Scientific Secretary:

W. KLONOWSKI (PL)

++48-22/659-91-43 ext. 312

++48-22/659-70-30

wklon@ibib.waw.pl

Organizing Committee Chair:

A. MROZEK (PL)

Organizing Committee:

S. Ambroszkiewicz (PL)

M. Grzegorek (PL)
A. Krupiczka (PL)
M. Philipp (PL)
Organizing Committee Secretary:
L. LUCHOWSKI (PL)
++48-32/31-70-26
lleszek@atos.iitis.gliwice.pl

Conference Contact Address:
GKPO'96
Institute of Computer Science
ul. Ordona 21,
01-237 Warsaw, Poland
++48-22/37-65-64

Declaration Form

Prospective participants are kindly asked to fill the Declaration Form below and send it by ordinary mail or fax to the Conference Contact Address given above.

----- GKPO'96 Declaration Form -----

I intend to participate in the GKPO'96 Conference

Signature: Date:

Name and title:

Affiliation:
.....

Address:
.....
.....
.....

I plan

to take part in the conference only

to submit a paper;

Title of the paper:
.....
.....

Here is the CFP for a conference on visual information systems, which may be of interest to some of you:

>From: zheng@matilda.vut.edu.au (Zheng Zhi Jie)
>Subject: Visual'96 Call for Papers

Call for Papers

First International Conference on Visual Information Systems

VISUAL '96
5-6 February 1996
Melbourne, Victoria
AUSTRALIA

Aims and Scope

With the widespread use of multimedia information, there is a pressing requirement to efficiently manage, store, manipulate and retrieve images and pictorial data in a wide spectrum of applications. As many organisations currently maintain large collections of images, the need for flexible visual information management is already critical. Future information systems in commercial and scientific applications will have a high visual content, and it is necessary to integrate the visual and image components into the architecture of organisational information systems. Such visual components will tend to permeate all information systems and in time will not be regarded as a distinct element, but will form an essential part of any information system, working alongside and in harmony with structured information processing components. The conference will focus attention on the management of visual information and will include, but is not restricted to, the following topics:

- * Architecture of visual information systems
- * Data modelling for visual information systems
- * Memory organisation and management
- * Feature recognition and extraction
- * Feature and content indexing
- * Picture description and representation languages

- * Query model and paradigms for visual information
- * Query language for visual information retrieval
- * Content-based search and retrieval
- * Integration of visual and non-visual information
- * Compression and delivery of visual information
- * Image processing and manipulation
- * Parallel processing in visual information systems
- * Specific applications areas of visual information systems

Both work in progress as well as fully developed systems will be of interest to the conference.

Keynote Addresses:

Shi-Kuo Chang, University of Pittsburgh, USA
Tosiyasu Kunii, University of Aizu, Japan

Paper Submission:

Authors should submit three copies of an extended abstract consisting of between two and four pages to the Program Chair. The abstract should include the authors' names, affiliation, telephone and fax numbers, postal and email addresses, and provide sufficient details to allow the merits of the paper to be assessed. Authors are encouraged to submit the abstracts electronically in Postscript form to visual96@matilda.vut.edu.au. Abstracts will be reviewed internationally. Detailed instructions for manuscript preparation will be sent at the time of acceptance notification, and are also available from the Web page (see Further Information).

Accepted papers must be presented at the Conference with the presenting author registering as a delegate in order for the paper to be included in the proceedings. Conference proceedings will be published and distributed to participants at the conference. It is also planned to publish the papers in book form after the conference.

Important Dates:

Expression of interest: 2 September 1995
Extended abstract due: 2 October 1995
Notification of acceptance: 3 November 1995
Camera ready paper due: 11 December 1995
Conference: 5-6 February 1996

Organising Chair:

Audrey Tam
Department of Computer & Mathematical Sciences
Victoria University of Technology
PO Box 14428, MMC
Melbourne, Victoria 3000, AUSTRALIA
Email: amt@matilda.vut.edu.au

Program Chair:

Clement Leung
Department of Computer & Mathematical Sciences
Victoria University of Technology
PO Box 14428, MMC
Melbourne, Victoria 3000, AUSTRALIA
Email: amt@matilda.vut.edu.au

Program Committee:

David Bell, University of Ulster
Terry Caelli, Curtin University of Technology
Alfonso Cardenas, University of California, Los Angeles
Shi-Kuo Chang, University of Pittsburgh
Francis Chin, University of Hong Kong
Roland Chin, Hong Kong University of Science & Technology
Bill Cody, IBM Almaden Research Center
John Debenham, University of Technology Sydney
Tharam Dillon, LaTrobe University
Borko Furht, Florida Atlantic University
Ricki Goldman-Segall, University of British Columbia
Bill Grosky, Wayne State University
Ramesh Jain, University of California, San Diego
Kingsley Nwosu, AT&T Bell Laboratories
Tosiyasu Kunii, University of Aizu
Zhi-Qiang Liu, University of Melbourne
Wo-shun Luk, Simon Fraser University
Song De Ma, Chinese Academy of Science
Erich Neuhold, T.H. Darmstadt
P. Venkat Rangan, University of California, San Diego
Nalin Sharda, Victoria University of Technology
Bala Srinivasan, Monash University
Imants Svalbe, Monash University
Paul Swatman, Swinburne University of Technology
Rodney Topor, Griffith University

Expression of Interest:

Please respond by 2 September 1995

Name:.....

Title First Initial(s) Last

Organisation:.....

Address:

.....

Email:.....

Tel: (.....).....

Fax: (.....).....

- I plan to attend Visual '96. Please send me registration information.
- I plan to attend Visual '96 and present my work as a poster.
- I plan to attend Visual '96 and submit a paper on the following topic:

.....

.....

- I may not be able to attend Visual '96, but would like to order the Proceedings.

Further Information:

Further information and updates are available on the World Wide Web at:

<http://dingo.vut.edu.au/~visual96>

or by contacting:

Visual '96 Conference Secretariat
Department of Computer & Mathematical Sciences
Victoria University of Technology
PO Box 14428, MMC
Melbourne, Victoria 3000, AUSTRALIA
Email: visual96@matilda.vut.edu.au
Tel: +61 3 688 4249 Fax: +61 3 688 4050

Here is a CFP which is not completely in the scope of this TC, but which may still interest some of you:

>From: tfts96@ensea.fr
>Subject: Call for papers TFTS'96

3rd IEEE Signal Processing Society International Symposium
on
TIME-FREQUENCY and TIME-SCALE ANALYSIS

June 18-21, 1996
Sofitel Paris Saint-Jacques Hotel and Conventions
Paris, FRANCE

----- CALL FOR PAPERS -----

The third Time-Frequency and Time-Scale Analysis Symposium is sponsored by the IEEE Signal Processing Society and the Centre National de Recherche Scientifique. It is a great opportunity to attend both TFTS symposium in Paris and Statistical Signal and Array Processing workshop which takes place in Corfou (Greece) June 24-26. The symposium will include half day of special session tutorials and three days of technical sessions on advanced topics (with both oral and poster sessions). Participation will be limited.

Papers are solicited for technical sessions on theory and applications of time-frequency and time-scale methods which include, but are not limited to:

1. Wavelets and wavelet packets
 - 1.1 Multiresolution analysis
 - 1.2 Adaptive representations
 - 1.3 Filter banks
 - 1.4 Algorithms
2. Time-Frequency analysis
 - 2.1 Properties of distributions - Kernel design
 - 2.2 Time varying spectral models
 - 2.3 High order analysis of non-stationary signals
 - 2.4 Algorithms
3. Decision in Time-Frequency and Time-Scale methods
 - 3.1 Detection and estimation (Bayesian approaches,...)
 - 3.2 Classification
4. Image and Speech
 - 4.1 Analysis
 - 4.2 Coding
 - 4.3 Reconstruction and restoration
5. Other applications
 - 5.1 Physics and astronomy
 - 5.2 Biomedical
 - 5.3 Non-destructive testing and monitoring
 - 5.4 Radar - Communications
6. New Trends in Time-Frequency and Time-Scale Analysis

7. Other (specify)

Prospective authors should submit four copies of extended summaries of no more than 4 pages for review, to Prof. P. Duvaut (address below). The top of the first page of the summary should include the name, affiliations, addresses of each author. The author to whom correspondence should be directed, along with his/her tel/fax numbers and e-mail address must be clearly indicated on the cover page, as well as 1 or 2 categories in the list above. Conference proceedings will be distributed at the symposium.

IMPORTANT DATES:

December 15, 1995 Submission of extended summary
February 15, 1996 Notification of acceptance
March 31, 1996 Camera-ready paper

You can reach us by e-mail: tfts96@ensea.fr
Fax: (33-1)-30-73-66-27

General Chair Technical Program Chair

Patrick Duvaut Yves Meyer
ENSEA / ETIS CEREMADE
6, avenue du Ponceau Univ. Paris Dauphine
95014 Cergy-Pontoise Cedex, France
France

American Liaison Austral-Asian Liaison

Les Atlas Fuminori Sakaguchi
Univ. of Washington Fukui University
USA Japan

Technical Committee

Les Atlas, Univ. of Washington, USA
Boualem Boashash, Queensland Univ., Australia
Peter Burt, D. Sarnoff research center, USA
Ingrid Daubechies, Princeton Univ., USA
David Donoho, Stanford Univ., USA
Patrick Flandrin, ENS Lyon, France
Dominique Garreau, Kurtosis Ing., France
Franz Hlawatsch, Technische Univ., Austria
AJEM Janssen, Philips Res.Lab., The Netherlands
Hamid Krim, LIDS MIT Cambridge, USA
Murat Kunt, EPFL, Switzerland

Coordination Registration

Inbar Fijalkow Martine Tournay
ENSEA / ETIS, France ENSEA / ETIS, France

Publications Publicity

Jean-Christophe Pesquet Pierre-Olivier Amblard
LSS / ESE, Univ. Paris 11, France CEPHAG, Grenoble, France
e-mail: pesquet@lss.supelec.fr

Local Arrangements Treasurer

Christophe Andrieu Claude Dodeman
ENSEA / ETIS, France Kurtosis Ing. / Finance, France

Here is the preliminary program of the CAIP'95 conference to be held in Prague this september:

>From: hlavac@prip.tuwien.ac.at (Vasek Hlavac)
>Subject: CAIP'95 Sept 6-8, 1995 Prague, Preliminary Program

6th INTERNATIONAL CONFERENCE CAIP '95, Prague, Czech Republic
September 6-8, 1995

SCIENTIFIC PROGRAM (preliminary)

Tuesday September 5, 1995

20:00-21:30 Icebreaker Party

Wednesday September 6, 1995

08:45-09:00 Opening
09:00-10:00 Invited Talk: Takeo Kanade
10:00-10:20 Coffee break
10:20-11:40 2 parallel oral sessions A1, B1
11:40-13:10 Lunch
13:10-14:20 Poster session A
14:20-14:40 Coffee break
14:40-15:40 2 parallel oral sessions A2, B2

15:40-16:00 Coffee break
16:00-17:00 2 parallel oral sessions A3, B3
19:00-23:00 Concert, banquet

Thursday September 7, 1995

09:00-10:00 Invited Talk: Josef Kittler
10:00-10:20 Coffee break
10:20-11:40 2 parallel oral sessions A4, B4
11:40-13:10 Lunch
13:10-14:20 Poster session B
14:20-14:40 Coffee break
14:40-15:40 2 parallel oral sessions A5, B5
15:40-16:00 Coffee break
16:00-17:00 2 parallel oral sessions A6, B6
17:30 Walk, beer party

Friday September 8, 1995

09:00-10:00 Invited Talk: Shimon Ullman
10:00-10:20 Coffee break
10:20-11:40 2 parallel oral sessions A7, B7
11:40-13:10 Lunch
13:10-14:10 2 parallel oral sessions A8, B8
14:10-14:30 Coffee break
14:30-15:30 2 parallel oral sessions A9, B9
15:30 Conference closing
17:00 Sightseeing

INVITED TALK Wednesday, 9:00-10:00
Spatial and Feature Space Clustering: Applications in
Image Analysis
Josef Kittler and George Matas

SESSION A1: INVARIANTS
Wednesday, 10:20-11:40

Groups for Grouping
Luc Van Gool, Theo Moons, and Marc Proesmans

Invariant Standard Positions of Ordered Sets of Points
Irene Rothe and Herbert Suesse

Skew-Symmetry Detection via Invariant Signatures
Alfred M. Bruckstein and Doron Shaked

Efficient Matching of Space Curves
Tomas Pajdla and Luc Van Gool

SESSION B1: SEGMENTATION AND GROUPING
Wednesday, 10:20-11:40

A Complexity Space for Curve Grouping
Benoit Dubuc and Steven W. Zucker

Segmentation in Scale Space
Rolf D. Henkel

An Unsupervised Region Growing Method for 3D Image Segmentation
Franco Chiavetta and Vito Di Gesu

Segmentation of Images for Environmental Studies by using a Simple
Markov/Gibbs Random Field Model
Georgy Gimel'farb and Nelly Kovalevskaya

SESSION A2: OPTICAL FLOW
Wednesday, 14:40-15:40

Optical Flow Computation in the Log-Polar Plane
Kostas Daniilidis and Volker Krueger

Computation of 3D-Motion Parameters using the Log-Polar Transform
Kostas Daniilidis

A Statistical Regularization Framework for Estimating Normal Displacements
along Contours with Subpixel Accuracy
Yann Ricquebourg and Patrick Bouthemy

SESSION B2: MODEL RECOVERY AND PARAMETER ESTIMATION
Wednesday, 14:40-15:40

ExSel++: A General Framework to Extract Parametric Models
Markus Stricker and Ales Leonardis

Generic 3D Shape Model: Acquisitions and Applications
Xinquan Shen and David Hogg

Guidelines for Choosing Optimal Parameters of Elasticity for Snakes
Ole Vilhelm Larsen, Petia Radeva, and Enric Marti

SESSION A3: TRACKING
Wednesday, 16:00-17:00

Tracking Surfaces via Texture-Mapping: A Boot-Strapping Approach
Alistair J. Bray

Motion-Based Identification of Deformable Templates
Christoph Schnoerr and Wladimir Peckar

Extending the Point Distribution Model using Polar Coordinates
Tony Heap and David Hogg

SESSION B3: SCENE AND OBJECT REPRESENTATION
Wednesday, 16:00-17:00

Intermediate Views for Face Recognition
Michael S. Lew, Alfred C. She, and Thomas S. Huang

Rendering Real-World Objects using View Interpolation
Tomas Werner, Roger David Hersch, and Vaclav Hlavac

Modelling 3-D Rigid Solid Objects Using The View Signature II Representation Scheme
Peter A. R. Cole and M. Shamim Khan

INVITED TALK Thursday, 9:00-10:00
(topic will be announced)
Takeo Kanade

SESSION A4: STRUCTURE FROM MOTION
Thursday, 10:20-11:40

An Automatic and Robust Algorithm for Determining Motion and Structure
>from Two Perspective Images
Zhengyou Zhang

3-D Scene Reconstruction from Image Sequences
H. V. Nguyen and M. Hanajik

Triangulation
Richard I. Hartley and Peter Sturm

3D Surface Reconstruction Using Occluding Contours
Edmond Boyer and Marie Odile Berger

SESSION B4: LOW LEVEL VISION: TEXTURE, IMAGE REDUNDANCY AND SIMILARITY
Thursday, 10:20-11:40

Image Redundancy and Classification
Espen Volden, Gerard Giraudon, and Marc Berthod

Towards a Measure of Diversity between Gray-Scale Images
Valery V. Starovoitov

Pattern Orientation and Texture Symmetry
Dmitry Chetverikov

Multiscale Texture Enhancement
Joachim Weickert

SESSION A5: MOTION DETECTION
Thursday, 14:40-15:40

Spatio-Temporal Robust Motion Estimation and Segmentation
Benoit Duc, Philippe Schroeter, and Josef Biguen

A New Spatiotemporal Approach for Image Analysis. Application to Motion Detection
Alice Caplier and Franck Luthon

Dense Non-Rigid Motion Estimation in Sequences of Medical Images using Differential Constraints
Serge Benayoun and Nicholas Ayache

SESSION B5: LOW LEVEL VISION I
Thursday, 14:40-15:40

Topological and Geometrical Corners by Watershed
Laurent Najman and Regis Vaillant

Crest Lines Detection by Valleys Spreading
E. Piegay, N. Selmaoui, and C. Leschi

The Distance Transform for Line Patterns: Generalisation and Development
Tony P. Pridmore and Sergey V. Ablameyko

SESSION A6: APPLICATIONS: MOTION DETECTION AND TRACKING
Thursday, 16:00-17:00

Mobile Detection Based on Histogram Difference
D. Maravall, J. A. Sanandres, and L. Baumela

Particle Tracking in Space Time Sequences
Frank Hering, Michael Merle, Dietmar Wierzimok, and Bernd Jaehne

Plant Tracking-Based Motion Analysis in a Crop Field
J. M. Sanchiz, F. Pla, J. A. Marchant, and R. Brivot

SESSION B6: LOW LEVEL VISION II
Thursday, 16:00-17:00

An Adaptive k-NN Rule Based on Dempster-Shafer Theory
L. M. Zouhal and T. Denoeux

Shadows, Defocus and Reliable Estimation
James Elder and Steven Zucker

Estimating the Initial Values of Unobservable Variables in Visual Probabilistic Networks
Chee-Keong Kwok and Duncan Fyfe Gillies

INVITED TALK Friday, 9:00-10:00
Object Recognition and Classification
Shimon Ullman

SESSION A7: STRUCTURE AND MATCHING
Friday, 10:20-11:40

Relational Matching with Active Graphs
Richard C. Wilson and Edwin R. Hancock

Matching Delaunay Triangulations by Relaxation Labelling
Andrew M. Finch, Richard C. Wilson, and Edwin R. Hancock

Approximate String Matching by Finite Automata
Borivoj Melichar

Affine Matching of Intermediate Symbolic Representations
Axel Pinz, Manfred Prantl, and Harald Ganster

SESSION B7: APPLICATIONS: MEDICINE AND BIOLOGY
Friday, 10:20-11:40

Automatic Classification of Skin Tumours with High Resolution Surfaces Profiles
Th. Ross, H. Handels, J. Kreusch, H. Busche, H. H. Wolf, and S. J. Poepl

4-Dimensional Modelling of the Human Heart
Edilberto Strauss and Peter Burger

Structure Adaptive Anisotropic Filtering for MR Image Enhancement
G. Z. Yang, P. Burger, D. N. Firmin, and S. R. Underwood

In Situ Determination of Cell Concentration in Bioreactors with a new Depth >from Focus Technique
T. Scholz, B. Jaehne, H. Suhr, G. Wehnert, P. Geissler, and K. Schneider

SESSION A8: ACTIVE VISION, SHADING
Friday, 13:10-14:10

Closing the Loop: Pursuing a Moving Object by a Moving Observer
Peter Nordlund and Tomas Uhlir

An Algorithm for a Linear Shape from Shading Problem
Ryszard Kozera

Isophotes the Physical Key to Tractable Local Shading Analysis
Radim Sara

SESSION B8: HUMAN FACE RECOGNITION AND TRACKING
Friday, 13:10-14:10

Efficient High Order Neural Network for Rotation, Translation and Distance Invariant Recognition of Gray Scale Images
Rafal Foltyniewicz

Learning Human Face Detection in Cluttered Scenes
Kah-Kay Sung and Tomaso Poggio

Head Pose Computation for Very Low Bit-rate Video Coding
Ricardo Lopez and Thomas S. Huang

SESSION A9: CALIBRATION AND POSE ESTIMATION
Friday, 14:30-15:30

Self-Calibration of an Affine Camera from Multiple Views
Long Quan and Roger Mohr

Stereo Calibration by Planar Grid Lines
A. Polanski, K. Wojciechowski and A. Borek

Monocular Pose Estimation of Circular Primitives
R. Neubauer and K. Voss

SESSION B9: CONTOUR
Friday, 14:30-15:30

A New Method of Extracting Closed Contours Using Maximal Discs
Gabriele Lohman

A Simple Algorithm to Evaluate the Local Symmetry at Each Point of a Closed Contour
Jose M. Inesta Quereda and Mateo Buendia Gomez

On Boundary Approximation
Fridrich Sloboda and Bedrich Zatko

POSTER SESSION A

Wednesday, 13:10-14:20

Texture Classification of Mouse Liver Cell Nuclei Using Invariant Moments of Connected Consistent Regions
Fritz Albrechtsen, Helene Schulerud, and Luren Yang

Text Recognition from Grey Level Images Using Hidden Markov Models
Kjersti Aas, Line Eikvil, and Tove Andersen

New Models of Image Restoration
Artiom Grigorian

An Improved Model of Snakes for Model-Based Segmentation
Petia Radeva, Joan Serrat, and Enric Marti

The Weighted Backprojection Techniques of Image Reconstruction
I. G. Kazantsev

Fusion of Bayesian Estimation and MTF Inversion Techniques for Improved Array Imaging in Scattering Media
Yuri V. Shkvarko and Alexey S. Netjukhailo

Case Based Reasoning for Image Interpretation
Petra Perner

Classification of Corrosion Images by Wavelet Signatures and LVQ Networks
S. Livens, P. Scheunders, G. Van De Wouwer, D. Van Dyck, H. Smets, J. Winkelmans, and W. Bogaerts

Knowledge Acquisition for Image Analysis using Hypermedia Interface
Boiko Balev, Arnold Bloemer, and Oliver Dehning

Interpretation of Printed Forms for Blind People
Torsten Ihle, Helmut Schirmer, and Siegfried Fuchs

Automatic Segmentation of Boundaries in Line Segment and Circular Arcs
G. Schmid, L. Altamirano Robles, and W. Eckstein

Moment-Based Affine-Invariant Fitting of Elliptical Segments
K. Voss, H. Suesse, and R. Neubauer

Compression of Binary Images Based on Covering
Vito Di Gesu, Salvatore Mantaci, and Gaetano Tortorici

Motion Detection with Fuzzy Logic in Real-Time
V. Gustin, A. Lapajne, and M. Cufer

Use of Explicit Knowledge for the Reconstruction of 3-D Object Geometry
C.-E. Liedtke, O. Grau, and S. Growe

Detecting Grey Level Symmetry: the Frequency Domain Approach
Yossi Gofman and Nahum Kiryati

A New Method to Threshold Images of Flat Binary Scenes under Uneven Lighting
Leszek Luchowski

Improving Snake Performance via a Dual Active Contour
Steve R. Gunn and Mark S. Nixon

SMD Position Measurement by a Kohonen Network Compared with Image Processing
Robert P. W. Duin and Edwin Th. G. Hoek

Estimating Feature Discriminant Power in Decision Tree Classifiers

I. Gracia, F. Pla, F. J. Ferri, and P. Garcia

Surface Tracking by Statistical Contour Dispersal
Nigel G. Sharp and Edwin R. Hancock

On Feature Selection via Rough Sets
Ludmila I. Kuncheva and Roumen K. Kounchev

Tree Neural Classifier for Character Recognition
Jan Voracek

Multiscale Extraction and Representation of Features from Medical Images
Marta Fidrich and Jean-Philippe Thirion

Line Representation of Elongated Shapes
M. Frucci and A. Marcelli

Fast Computation of 3-D Geometric Moments Using a Discrete Gauss Theorem
Luren Yang, Fritz Albrechtsen, and Torfinn Taxt

On the Group Algebras' Hierarchy Pertaining to the Parametrization of Fast Algorithms of Discrete Orthogonal Transforms
V. M. Chernov

Understanding of Ridge-Valley Lines on Image-Intensity Surfaces in Scale-Space
Supoj Chinveeraphan, Satoshi Watanabe, Ryo Takamatsu, and Makoto Sato

Computer Analysis and Recognition of Cognitive Phase Space Electrocardiographic Image
Leonid Fainzilberg and Tatiana Potapova

A New Algorithm for Probabilistic Relaxation based on the Baum Eagon Theorem
A. J. Stoddart, M. Petrou, and J. Kittler

Segmentation and Estimation of the Optical Flow
Adrian G. Bors and Ioannis Pitas

Automated Detection of Fluorescent Cells and Measurement of their DNA-Content
W. Boecker, H.-W. Gantenberg, W.-U. Mueller, and C. Streffer

A Highly Selective HT-Based Algorithm for Detecting Extended, Almost Rectilinear Shapes
Rita Cucchiara and Fabio Filicori

Invariants and Object Modelling Using Clifford Algebra
Eduardo Bayro-Corrochano and Gerald Sommer

Joint Invariants of a Triplet of Coplanar Conics: Stability and Discriminating Power for Object Recognition
Francoise Veillon, Long Quan, and Peter Sturm

Using Mirror Cameras for Estimating Spatial Depth
Jens Arnsperg, Henrik Nielsen, Morten Christensen, and Knud Henriksen

Combining Head Tracking and Pupil Monitoring in Vision-Based Human-Computer Interaction
C. Colombo, A. Del Bimbo, and S. De Magistris

Active-Camera Calibration Using Iterative Image Feature Localization
W. Brent Seales and David Eggert

POSTER SESSION B

Thursday, 13:10-14:20

Projective Invariants for Polygons
Tomas Suk and Jan Flusser

A Multi-Model Image Line Reconstruction
Michal Haindl and Stanislava Simberova

Tools for Automatic Recognition of Character Strings in Maps
Line Eikvil, Kjersti Aas, and Marit Holden

Towards Higher Decimation Ratios
Walter G. Kropatsch

Digital Plane Parametrization by Least Squares Fits
Reinhard Klette, Ivan Stojmenovic, and Jovisa Zunic

A Supervised Approach to the Evaluation of Image Segmentation Methods
Luren Yang, Fritz Albrechtsen, Tor Lonnestad, and Per Grottum

Experimental Investigation on Editing k-NN Rule by a Genetic Algorithm
Ludmila I. Kuncheva and Yordan K. Yotzov

Heterogeneous Morphing of Multimodal Medical Information
Vojtech Jankovic, Eugen Ruzicky, and Eduard Groeller

Recognition and Pose Determination of 3-D Objects Using Multiple Views

Ales Leonardis, Stane Kovacic, and Franjo Pernus

Bayesian Extraction of Differential Surface Structure
M. Turner and E. R. Hancock

A Proposal for the Implementation of a Parallel Watershed Algorithm
A. Meyster and J. B. T. M. Roerdink

A Neural Network Energy Minimization Approach to Approximation of
2-Dimensional Shapes
Todd Law, Hidenori Itoh, and Hirohisa Seki

Visual Detection of Defects in Moulded Plastic Drippers
A. Anzalone and A. Machi'

Segmentation Modeling
Anthony Hoogs and Ruzena Bajcsy

Inverting the Reflectance Map with Binary Search
Francois Faure

Feature Selection for the Tree-Wavelet Transform
P. L. Palmer, N. Fatemi-Ghomi, and M. Petrou

Performance Comparison of a Deterministic and a Stochastic Method for Image
Classification
Shan Yu and Konrad Weigl

Advances in the Statistical Methodology for the Selection of Image Descriptors
for Visual Pattern Representation and Classification
Pavel Pudil, Jana Novovicova, Francesco Ferri, and Josef Kittler

Affine Stereo Calibration
Peter Sturm and Long Quan

Triple Features for Linear Distorted Images
Alexander Kadyrov

Finding Postirradiation Reaction in Lungs from Digitized X-rays
L. Chmielewski, E. Chmielewska, M. Sklodowski, W. Cudny,
and J. Skoczylas

Estimating Time to Contact with Curves, Avoiding Calibration and Aperture
Problem
Jens Arnsfang, Knud Henriksen, and Robert Stahr

Constraining Probabilistic Relaxation with Symbolic Attributes
Mohamad Hatef and Josef Kittler

Local Fourier Phase and Disparity Estimates: An Analytical Study
Atsuto Maki, Lars Bretzner, and Jan-Olof Eklundh

Direct Obstacle Detection and Motion from Spatio-Temporal Derivatives
Paer Fornland

Direct Estimation of Rotation from Two Frames via Epipolar Search
Sebastien Roy and Ingemar J. Cox

Dynamic Character Recognition Using an Elastic Matching
Fidimahery Andrianasy and Maurice Milgram

Visual Robot Guidance for an Insertion Task
Dorin Ungureanu, Luc Van Gool, and Theo Moons

Robust Surface Reconstruction from Stereo SEM Images
Drahomira Janova and Jiri Jan

Adaptive Wavelets for Signal Analysis
Jaroslav Kautsky and Radka Turcajova

A Common Framework for Preattentive and Attentive Vision using Steerable
Filters
Markus Michaelis, Rainer Herpers, and Gerald Sommer

Static Global Scheduling for Optimal Computer Vision and Image Processing
Operations on Distributed-Memory Multiprocessors
Cheolwhan Lee, Yuan-Fang Wang, and Tao Yang

Robust Patch Concept for Egomotion Estimation
Christoph Herwig and Hans-Otto Carmesin

Parallel Thinning Algorithm Based on the Wave Propagation Model
Franck Xia

Film Editing Reconstruction and Semantic Analysis
J. M. Corridoni and A. Del Bimbo

Measuring Time-to-Contact Using Active Camera Control
W. Brent Seales

The Color Constancy Problem: An Illumination Invariant Mapping Approach
Rafael Wiemker

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CONFERENCE SECRETARIAT

Dr. Eva Matyskova
Czech Technical University
Faculty of Electrical Engineering
Karlovo nam. 13
121 35 Praha 2
Czech Republic
Phone: +42-2-2435 7465 Fax: +42-2-290 159

FURTHER INFORMATION

E-mail: caip95@vision.felk.cvut.cz
FTP: <ftp://novell.felk.cvut.cz/caip95>
WWW: <http://sgi.felk.cvut.cz/~vision/cvl/cvl.html>

CONFERENCE CHAIRS

Ruzena Bajcsy University of Pennsylvania, USA
Gerald Sommer Christian-Albrechts-Universitaet Kiel, Germany

LOCAL ORGANIZER

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REGISTRATION FEE

until July 15, 1995 late

regular 490,- DEM 560,- DEM

student 360,- DEM 410,- DEM

student without
proceedings 265,- DEM 315,- DEM

IAPR_member 460,- DEM 530,- DEM

The full registration fee includes participation in all CAIP '95 professional activities, proceedings, three lunches, the conference reception, and parties. Cancellations received in writing before August 15, 1995 will be entitled to a refund minus a 15% processing fee. No fees will be returned for cancellation requests received after August 15, 1995.

ACCOMMODATION

An accommodation will be available in the hotel KRYSTAL (within five minutes walking distance from the conference place):

Hotel KRYSTAL (C***)
Jose Martiho 2/407
160 00 Praha 6 - Veleslavin
Czech Republic
Phone +42-2-316 2761 Fax +42-2-316 4215

Single and double rooms with bathroom are available. The hotel rooms for the time of the conference should be booked through the conference secretariat, which implies slightly lower prices. All prices are including breakfast:

during the conference before or after
(four nights) the conference

Single room 60,- DEM per night 75,- DEM per night
Double room 80,- DEM per night 100,- DEM per night

The accommodation should be paid together with the registration fee to the same account. Cancellations will be accepted and refunded if received by August 31, 1995. Accommodation for participants and accompanying persons before and/or after the conference can also be booked through the conference secretariat if done before July 15, 1995.

And here is the preliminary program for ICIAP'95, held in Italy, also in September:

>From: ICIAP 95 <iciap@dist.dist.unige.it>
>Subject: 8th ICIAP Preliminary Program

PRELIMINARY PROGRAM

8th International Conference on Image Analysis and Processing (8TH ICIAP)

Centro Congressi Ariston
Sanremo, Italy
September 13-15, 1995

organized by University of Genova
Elsag Bailey, Genova

sponsored by International Association for Pattern Recognition (IAPR)

The 8th International Conference on Image Analysis and Processing is the eighth of a series of conferences promoted every second year, since 1981, by the Italian Chapter of IAPR (the International Association for Pattern Recognition) as an international forum for presentation and discussion of the most recent advances in the research field of image analysis and processing.

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G. Vernazza DIBE, University of Genova
DIEE, University of Cagliari

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W. Kropatsch, Austria B. Zavidovique, France

TECHNICAL PROGRAM

TUESDAY, SEPTEMBER 12

17.00 - 20.00 Registration
"Colombo" room - Ariston Congress Center

WEDNESDAY, SEPTEMBER 13

8.00 - 9.00 Registration
"Colombo" room - Ariston Congress Center

9.00 - 9.30 Welcome Address

9.30 - 10.15 Invited Talk

Texture Analysis: Representation and Matching
A. Jain
Michigan State University (U.S.A.)

10.15 - 11.05 Session 1.1: Textures

Region-based Segmentation of Textured Images
C. Rouquet, P. Bonton
CNRS-Universite' B. Pascal - Aubiere (France)

A New Approach to Image Segmentation
A. Succi, V. Torre
Universita' di Genova (Italy)

11.05 - 11.30 Coffee Break

11.30 - 12.45 Session 1.2: Segmentation

Using Hopfield Networks to Segment Color Images
P. Campadelli, D. Medici, R. Schettini
Universita' degli Studi di Milano (Italy)
ITIM CNR - Milano (Italy)

The Watershed Transformation for Multiresolution Image Segmentation
S. Wegner, T. Harms, J.H. Builtjes, H. Oswald, E. Fleck
Deutsches Herzzentrum Berlin (Germany)

Bounds on the Optimal Parameters of Elasticity of a Snake
O.V. Larsen, P. Radeva
Aalborg University (Denmark)
University of Barcelona (Spain)

12.45 - 14.30 Lunch

14.30 - 15.15 Invited Talk

Efficient Attributed Graph Matching and Its Application
to Image Analysis
H. Bunke

Universitat Bern (Switzerland)

15.15 - 16.30 Session 1.3: Matching

A Bayesian Framework for Matching Delaunay Graphs
A.M. Finch, E.R. Hancock
University of York (U.K.)

An Integrated Approach to Grouping and Matching
R.C. Wilson, E.R. Hancock
University of York (U.K.)

An Adaptive Reject Option for LVQ Classifiers
L.P.Cordella, C.De Stefano, C.Sansone, M.Vento
Universita' di Napoli (Italy)

16.30 - 17.00 Coffee Break

17.00 - 18.15 Session 1.4: Shape Features

A Model-Based Method for Characterization and Location of Curved
Image Features
T. Blaszk, R. Deriche
INRIA Sophia Antipolis (France)

Estimation of Curvature and Tangent Direction by Median Filtered
Differencing
J.Matas, Z.Shao, J.Kittler
University of Surrey (UK)

Adaptive Elimination of False Edges
D. Ziou, S. Tabbone
University of Sherbrooke - Quebec (Canada)
CRIN-CNRS/Inria Lorraine (France)

POSTER SESSIONS (Wednesday, September 13)

11.30 - 12.45 Poster I: Software and Hardware Architectures for
Image Processing, Neural Networks

1.1 An Image Processing Library Based on Abstract Image Data Types in C++
D. Koelma, A. Smeulders
University of Amsterdam (The Netherlands)

1.2 Spatio-Temporal Data Management for a 3D Graphical Information System
M. Maruyama, T. Teroaka, T. Tamada, S. Nishida
Central Research Laboratory
Mitsubishi Electric Corporation (Japan)

1.3 PhotoPix: an Object-Oriented Framework for Digital Image Processing
Systems
A.A. Souza Sol, A. de Albuquerque Araujo
Universidade Federal de Minas Gerais (Brazil)

1.4 Behavioural Animation for Virtual Reality
Ik Soo Lim
National University of Singapore (Singapore)

1.5 Data Packing vs Processing Speed on Low-Cost Massively Parallel
Systems: an Image Processing Case Study for Shape Evaluation
on the PAPRICA System
A.Broggi
Universita' di Parma (Italy)

1.6 A New Parallel Method Based on a Genetic Approach for Determination and
Classification of Skin Spots
A. Kitics, A. Nakagawa
The Institute of Physical and Chemical Research (RIKEN) (Japan)

1.7 A VSLI Scalable Processor Array for Motion Estimation
P.Baglietto, M.Maresca, A.Migliaro, M.Migliardi
Universita' di Genova (Italy)

1.8 Evaluating Digital Angles by a Parallel Diffusion Process
V. Cantoni, L. Cinque, S. Levialdi, L. Lombardi
Universita' di Pavia (Italy)
Universita' di Roma (Italy)

1.9 A Pyramidal Approach to Convex Hull and Filling Algorithms
M.G. Albanesi, M. Ferretti, L. Zangrandi
Universita' di Pavia (Italy)

1.10 A Visual Speech Model based on Fuzzy-Neuro Methods
H.-H. Bothe
University of Berlin (Germany)

1.11 Edge Detection Filters Based on Artificial Neural Networks
A. J. Pinho, L. B. Almeida
Universidade de Aveiro (Portugal)
INESC - Lisboa (Portugal)

1.12 Use of Cortical Images and Neural Networks in a Self-Learning Image

Classifier
N. Petkov
University of Groningen (The Netherlands)

1.13 A Neural Model to Extract Symbolic Representation for Image Understanding
N. Semmar, C. Fluhr
INSTN CEN/SACLAY Gif sur Yvette (France)

1.14 Occluded Object Recognition Using Multiscale Features and Hopfield Neural Networks
J.-S. Lee, C.-H.g Chen, Y.-N. Sun, G.-S. Tseng
National Cheng Kung University Taiwan (Republic of China)

17.00 - 18.15 Poster II: Image Coding, Biomedical Image Processing Applications

2.1 A Code-Based Approach to Image Processing Teaching
A. Biancardi, M. Pini
Universita' di Pavia (Italy)

2.2 Automatic Video Segmentation Through Editing Analysis
J. M. Corridoni, A. Del Bimbo
Universita' di Firenze (Italy)
Universita' di Brescia (Italy)

2.3 Visual Image Retrieval by Elastic Matching of User's Sketches
A. Del Bimbo, P. Pala
Universita' di Firenze (Italy)
Universita' di Brescia (Italy)

2.4 Finding Facial Features Using the HLS Colour Shape
P. Ranefall, B. Nordin, E. Bengtsson
Centre for Image Analysis - Uppsala (Sweden)

2.5 A New and Fast Real-Time Implementation of 2-D DCT
J. Jiang
Engineering School - Bolton (U.K.)

2.6 A Hybrid Lossless Compression of Still Images Using Markov Models and Linear Prediction
S. Takamura, M. Takagi
The University of Tokyo (Japan)

2.7 The Impact of Aliasing and Quantization on Motion Compensation
C. Stiller
INRS- Telecommunications - Quebec (Canada)

2.8 Rule-Based Method for Tumor Recognition in Liver Ultrasonic Images
V. A. Kovalev
Belarus Academy of Sciences (Belarus)

2.9 An Understanding of Muscle Fibre Images
C.C.Taylor, M.R. Faghihi, I.L.Dryden
University of Leeds (U.K.)

2.10 A New Plant Cell Image Segmentation Algorithm
G. Fernandez, J.-P. Zryd, M. Kunt
Ecole Polytechnique Federale de Lausanne (Switzerland)
University of Lausanne (Switzerland)

2.11 Extraction of Tumours from Magnetic Resonance Images of the Brain by Texture and Clustering
J. Batista, R. Kitney
Imperial College of Science, London (U.K.)

2.12 Automatic Identification of Brain Contours in Magnetic Resonance Images of the Head
F. Bello, R. I. Kitney
Imperial College of Science, London (U.K.)

2.13 Analysis of the Spatial Arrangement of Cells in the Proliferative Breast Lesions
V. Della Mea, C.A. Beltrami
Universita' di Udine (Italy)

2.14 Application of Image Processing in Neurobiology: Detection of Low Signals with High Spatial Resolution and a Non-uniform Variance
Y. Chitti
CNRS UPR, Marseille (France)

2.15 Compute-Assisted Analysis of Echocardiographic Image Sequence
A. Giacchetti, G. Gigli, V. Torre
Universita' di Genova (Italy)
Ospedale di Rapallo - Genova (Italy)

2.16 Tissue Segmentation in MRI as an Informative Indicator of Disease Activity In the Brain
S. Vinitski, C. Gonzalez, C. Burnett,
S. Seshagiri, F. Mohamed, H. Ortega, S. Faro
Thomas Jefferson University Hospital - Philadelphia (USA)

Medical College of Pennsylvania - Philadelphia (USA)

THURSDAY, SEPTEMBER 14

9.00 - 9.45 Invited Talk

Analysis of Scenes Containing Multiple Nonpolyhedral 3D Objects
L. Shapiro
University of Washington - Seattle (U.S.A.)

9.45 - 11.00 Session 2.1: Scene Understanding

Fuzzy Segmentation and Structural Knowledge for Satellite Image
Analysis
L. Wendling, M. Zehana, J. Desachy
IRIT - Toulouse (France)

Learning How to Find Patterns or Objects in Complex Scenes
W. F. Bischof, T. Caelli
University of Alberta (Canada)
Curtin University of Technology (Australia)

Adaptive Matching Using Object Models Generated From Photometric
Stereo Images
G. Bellaire, K. Schluns, A. Mitritz, K. Gwinner
Technische Universität Berlin (Germany)

11.00 - 11.30 Coffee Break

11.30 - 12.45 Session 2.2: Robot Vision

Sensor Planning Techniques and Active Visual Inspection
V. Roberto, E. Trucco
Università di Udine (Italy)

Experimentally Self-Calibration from Four Views
R. Enciso, T. Vieville
INRIA Sophia-Antipolis (France)

Vision-Based Navigation in Service Robotics
G. Garibotto, M. Ilic, S. Masciangelo
Elsag Bailey - Genova (Italy)

12.45-14.30 Lunch

14.30 - 15.15 Invited Talk

Breaking Up 3D Objects Into Geons
M.D. Levine
McGill University - Montreal (Canada)

15.15 - 16.30 Session 2.3: Digital Topology and Morphology

Delineation of Elongated Sub-Patterns in a Piecewise Constant
Foreground
C. Arcelli, G. Ramella
Istituto di Cibernetica del C.N.R., Arco Felice - Napoli (Italy)

On a New Basic Concept and Topological Invariant
F. Y. Xia
University of Macau (Macau)

Line Moments and Invariants for Real-Time Processing of Vectorized
Contour Data
G. Lambert, H. Gao
Technische Universität Darmstadt (Germany)

16.30 - 17.00 Coffee Break

17.00 - 18.15 Session 2.4: Range Images and Acoustic

Restoration of Noisy Underwater Acoustic Images
Using Markov Random Fields
V. Murino, E. Frumento, F. Gabino
Università di Genova (Italy)

Plausibilistic Processing of Sparse Range Images
B. Krebs, B. Korn, F.M. Wahl
Technische Universität Braunschweig (Germany)

Segmentation/Reconstruction of Range Images Based on Piecewise-Linear
Approximation
E. Puppo
Istituto per la Matematica Applicata del CNR, Genova (Italy)

POSTER SESSIONS (Thursday, September 14)

11.30 - 12.45 Poster III: Low-Level Image Processing, Segmentation,
Matching, and Geometric Reasoning

3.1 In-Place Covariance Operators for Computer Vision

T. Caelli
University of Technology, Perth (Australia)

3.2 Boundary Detection for Convex Shapes
M. Hatimi, M. Salotti
Universite' des Sciences - Corte' (France)

3.3 Sub-Pixel Registration for Super-High Resolution Image Acquisition
Based on Temporal Integration
Y. Nakazawa, T. Komatsu, T. Saito
Kanagawa University (Japan)

3.4 Robust Features for Textures in Additive Noise
C. Ottonello, S. Pagnan, V. Murino
Universita' di Genova (Italy)
Istituto di Automazione Navale - CNR Genova (Italy)

3.5 Decomposing Contours into Curves of Different Families
V. Caglioti
Politecnico di Milano (Italy)

3.6 A Proposal on Local and Adaptive Determination of Filter Scale
for Edge Detection
D. Sorrenti
Politecnico di Milano (Italy)

3.7 On the Detection of Step Edges in Algorithms Based on Gradient
Vector Analysis
A. Larre', E. Montseny
Universitat Politecnica de Catalunya - Barcelona (Spain)
Universitat Rovira i Virgili - Carretera de Salou (Spain)

3.8 Direction Analysis in Grey Levels Images
S. Bres, H. Emptoz
Institut National des Sciences Appliquees de Lyon -
Villeurbanne (France)

3.9 An Unsupervised and Nonparametric Bayesian Image Segmentation
M. Zribi, F. Ghorbel
Ecole Nouvelle d'Ingenieurs en Communication
Villeneuve d'Ascq (France)

3.10 A.I. - Based Image Segmentation Using Average, Entropy and Fractal
Dimension
S. Vitulano, C. Di Ruberto, M. Nappi
Universita' di Cagliari (Italy)

3.11 Quality Enhancement in Image Enlargement
F. Marino, G. Mastronardi
Politecnico di Bari (Italy)

3.12 Synthesizing Objects and Scenes Using the Reverse Distance
Transformation in 2D and 3D
I. Nystrom, G. Borgefors
Uppsala University (Sweden)
Swedish University of Agricultural Sciences (Sweden)

3.13 Texture Segmentation Using Local Phase Differences in Gabor
Filtered Images
A.M. Landraud, S. Oh Yum
Universite' de la Rochelle - La Rochelle (France)

3.14 Disparity Estimation for Stereo Sequences Based on Adaptive Size
Hierarchical Block Matching
M. Accame, F. De Natale
Universita' di Genova (Italy)

3.15 Matching of Stereo Curves - A Closed-Form Solution
Y. Zhang, J.J. Gerbrands
TU Delft (The Netherlands)

3.16 Multi-Polygonal Object Tracking
G. Tascini, P. Pulliti, P. Zingaretti
Universita' di Ancona (Italy)

3.17 Optimal Parameter Estimation of Ellipses
Y. Cui, J. Weng, H. Reynolds
Michigan State University - Lansing (USA)
Ergonomics Research Lab - Lansing (USA)

17.00 - 18.15 Poster IV: Pattern Recognition, Applications of
OCR and Document Processing

4.1 A Linear Discriminator for Width
J.A.F. Leite, E.R. Hancock
University of York (U.K.)

4.2 Line and Cell Searching in Tables or Forms
E. Turolla, Y. Belaid, A. Belaid
CRIN/CNRS, Vandoeuvre Les-Nancy (France)

4.3 Binarization of Inhomogeneously Illuminated Images

V.V. Kindratenko, B.A. Treiger, P. Van Espen
University of Antwerpen (Belgium)

4.4 Pruning Discrete Semicontinuous Skeletons
D. Attali, G. Sanniti di Baja, E. Thiel
Equipe TIMC-IMAG - IAM-Domaine de la Merci - La Tronche (France)
Istituto di Cibernetica - CNR - Arco Felice, Napoli (Italy)

4.5 On Commutative Properties of Halftoning and Their Applications
Y. B. Karasik
Carleton University - Ottawa (Canada)

4.6 Combining Resolution and Granularity for Pattern Recognition
P. Bottoni, L. Cinque, S. Levisardi, L. Lombardi, P. Mussio
Universita' di Roma (Italy)
Universita' di Pavia (Italy)

4.7 Describing Words by Graphs
G. Dimauro, S. Impedovo, G. Pirlo
Universita' di Bari (Italy)

4.8 Selecting Reference Signatures for On-Line Signature Verification
G. Congedo, G. Dimauro, S. Impedovo, G. Pirlo
Universita' di Bari (Italy)

4.9 ApOFIS: an A-Priori Optical Font Identification System
A. Zramdini, R. Ingold
University of Fribourg (Switzerland)

4.10 Extracting Words and Multipart Symbols in Graphics Rich Documents
M. Burge, G. Monagan
Swiss Federal Institute of Technology (ETH), Zurich (Switzerland)

4.11 A Semi-Automatic Method for Form Layout Description
S. Bussi, F. Mangili
Elsag Bailey - Genova (Italy)

4.12 Improving the Use of Contours for Off-Line Cursive Script Segmentation
G. Boccignone, A. Chianese, M. De Santo, A. Picariello
Universita' di Salerno (Italy)
Universita' di Napoli (Italy)

4.13 A Method for Determining Address Format Automated Sorting of
Japanese Mail
T. Tsuchiya, N. Nakajima, T. Kamimura
NEC Corporation Kawasaki (Japan)

4.14 Structural Features by MCR Expression Applied to Printed Arabic
Character Recognition
A.M. Zidouri, S. Chinveeraphan, M. Sato
Tokyo Institute of Technology (Japan)

4.15 Genetic Algorithm for Thinning Gray-Scale Images of Characters
T. Shioyama, A. Okumura, Y. Aoki
Kyoto Institute of Technology (Japan)

4.16 Blue-Print Document Analysis for Color Classification
G. Marcu, S. Abe
Array Corporation (Japan)

FRIDAY, SEPTEMBER 15

9.00 - 9.45 Invited Talk

Document Analysis: What is Missing?
G. Nagy
Rensselaer Polytechnic Institute Troy, NY (USA)

9.45 - 11.00 Session 3.1: Optical Character Recognition

Invariant Features for HMM Based Handwriting Recognition
Jianying Hu, Michael K. Brown, William Turin
Murray Hill (USA)

A Robust Analytical Approach for Handwritten Word Recognition
G. Dimauro, S. Impedovo, G. Pirlo, D. Sfringola
Universita' di Bari (Italy)

Recognition of Rotated Characters by Inexact Matching
L. Cinque, S. Di Zenzo, S. Levisardi
Universita' di Roma La Sapienza (Italy)

11.00 - 11.30 Coffee Break

11.30 - 12.45 Session 3.2: Biomedical Applications

Bayesian Image Reconstruction Using a High-Order Interacting MRF Model
M. Chan, G. T. Herman, E. Levitan
University of Pennsylvania - Philadelphia (U.S.A.)
Techion - Haifa (Israel)

Minimum Spanning Trees (MST) as a Tool for Describing Tissue
Architecture When Grading Bladder Carcinoma
H.-K. Choi, E. Bengtsson, T. Jarkrans,

J. Vasko, K. Wester, P.U. Malmstrom, C. Busch
Uppsala University (Sweden)

Symbolic Indexing of Cardiological Sequences Through Dynamic Curve
Representations

M. Baroni, G. Congiu, A. Del Bimbo, A. Evangelisti, E. Vicario
Universita' di Firenze (Italy)
Universita' di Brescia (Italy)

12.45-14.30 Lunch

14.30 - 15.15 Invited Talk

Image Communication
A.N. Netravali
AT&T Bell Labs Murray Hill (U.S.A.)

15.15 - 16.30 Session 3.3: Image Coding

Generalized Square Isometries - An Improvement for Fractal Image
Compression

D. C. Popescu, A. Dimca, H. Yan
University of Sydney (Australia)

A Fast Algorithm for High-Quality Vector Quantization Codebook Design

C. Braccini, F. Cocurullo, F. Lavagetto
Universita' di Genova (Italy)

Fast Fractal Image Coding Using Pyramids

H. Lin, A. N. Venetsanopoulos
University of Toronto - Ontario (Canada)

16.30 - 16.45 Coffee Break

16.45 - 17.35 Session 3.4: Motion

Hidden MRF Detection of Motion of Objects with Uniform Brightness

A. Kurianski, M. Nieniewski
PAS - Warsaw (Poland)

Motion Analysis and Segmentation for Object-Oriented Mid-Level Image
Representation

T. Saito, T. Komatsu
Kanagawa University - Yokohama (Japan)

POSTER SESSIONS (Friday, September 15)

11.30 - 12.45 Poster V: Applications: Remote Sensing, Inspection,
Acoustical and SAR Image Processing

5.1 Speckle Noise Filtering in SAR Images Using Wavelets

L. Boroczky, R. Fioravanti, S. Fioravanti, D. D. Giusto
Hungarian Academy of Sciences - Budapest (Hungary)
Saclant Undersea Research Center, La Spezia (Italy)
Universita' di Cagliari (Italy)

5.2 Prediction of Short-Term Evolution of Cloud Formations Based on
Meteosat Image Sequences

R. Bolla, M. Marchese, C. Nobile, S. Zappatore
Universita' di Genova (Italy)

5.3 Prototyping of Interactive Satellite Image Analysis Tools Using
a Real-Time Data-Flow Computer

S. Praud, P. Germain, J. Plantier
Etablissement Technique Central de l'Armement - Arcueil (France)

5.4 Simulation of Aircraft Images for Airport Surface Traffic Control

F. Marti, M. Naldi
Universita' di Roma (Italy)

5.5 Cooperation of Knowledge-Based Systems for Galaxy Classification

J.-C. Ossola, M. Thonnat
INRIA Sophia-Antipolis (France)

5.6 An Application of Fuzzy Medial Axis on Astronomical Images

M.C. Maccarone, M. Tripiciano, V. Di Gesu'
IFCAI/CNR - Palermo (Italy)
Universita' di Palermo (Italy)

5.7 Fuzzy Segmentation and Astronomical Images Interpretation

P. Dherete', L. Wendling, J. Desachy
Universite' Paul Sabatier - IRT Toulouse (France)

5.9 An Approach to Detect Lofar Lines

J-C. Di Martino, S. Tabbone
CRIN/CNRS-INRIA LORRAINE - Vandoeuvre-les-Nancy (France)

5.10 A Fast Object Orientation Estimation and Recognition Technique for
Underwater Acoustic Imaging

A. Tesei, A. Trucco, D. Zambonini
Universita' di Genova (Italy)

5.12 Application of the Hough Transform for Weld Inspection Underwater
A.R. Greig
University College London (U.K.)

5.13 Development of an Automated Bond Verification System for Advanced
Electronic Packages
M. Darboux, J.-M. Dinten
DSYS/SCSI- Grenoble (France)

5.14 Crack Detection by a Measure of Texture Anisotropy
L. Bruzzone, F. Roli, S.B. Serpico
Universita' di Genova (Italy)

5.15 A Vision System for Automatic Inspection of Meat Quality
M. Barni, V. Cappellini, A. Mecocci
Universita' di Firenze (Italy)
Universita' di Pavia (Italy)

GENERAL INFORMATION

SYMPOSIUM SITE

The 8th ICIAP will be held in the beautiful town of Sanremo, on the Western Ligurian Riviera, also known as the "Riviera dei Fiori" for the mild climate, the gorgeous mediterranean vegetation and the colorful panoramas. The Conference venue will be the Centro Congressi Ariston, located near the center of Sanremo.

CONFERENCE PROCEEDINGS

The proceedings, published by Springer Verlag GmbH and Co., will be available at the Conference.

HOTEL ACCOMODATION

Please fill the attached hotel reservation form and send to
Consorzio Sanremo Congressi Turismo
(phone +39 184 530719 - fax +39 184 574574)

SOCIAL EVENTS

A Welcome Reception will be held at Villa Nobel on Wednesday, September 13, at 20:30. The Conference Banquet will be held at a downtown Restaurant on Thursday, September 14, at 21:00. Both events are included in the registration fee.

BEST PAPER AWARD

During the 8th ICIAP Conference, a prize of Lit. 2,000,000 sponsored by IAPR and IRST (Istituto per la Ricerca Scientifica e Tecnologica) will be awarded, in memory of Prof. Edoardo Caianello, to the best presented paper.

FURTHER INFORMATION

- SCIENTIFIC SECRETARIAT
Ombretta Arvigo DISI, University of Genova
phone: +39 10 353 8032
(+39 10 353 6600 after July 17)
fax: +39 10 353 8028
(+39 10 353 6699 after July 17)

e-mail: iciap@disi.unige.it

- LOCAL ARRANGEMENTS
Sonya Vaccaro DIBE, University of Genova
Via all'Opera Pia, 11a
I-16145 Genova
phone: +39 10 353 2755
fax: +39 10 353 2134
e-mail: iciap@dibe.unige.it

- REGISTRATION
Filippo Ravaschio Elsag Bailey
Via Puccini, 2
I-16154 Genova
phone: +39 10 658 2375
fax: +39 10 658 2694

- WWW SITE
Information about technical program, conference site, travel and registration are available on the WWW site
<http://www.com.dist.unige.it/ICIAP>.

HOW TO REACH SANREMO

- By plane: suggested airports are Genova and Nice
- By train: there are direct connections from Nice, Genova, Milano and Roma.
- By car

