

# Newsletter 45, October 1996

TC10 news #45

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Dear TC10 members and friends,

Here is the my second issue of the TC10 News. For now, this newsletter is quite long. I am working on creating online archives of CFP's that will be accessible through the world wide web. Once that is working, I will begin to cut short some really long CFP's and will point you to the online full-length CFP's.

One of my colleagues has created a list of commercial software packages for raster to vector conversion.

Before I get into the regular announcements, here is a last minute reminder of the submission deadline for ICDAR'97. Submissions to ICDAR'97 are due by December 1, 1996. Further details can be found on the ICDAR'97 web page at <http://www.icdar97.dbag.ulm.daimlerbenz.com>.

Now to the regular announcements. First, the CFP for TC10's primary workshop, GREC'97.

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>From: Karl Tombre <[Karl.Tombre@loria.fr](mailto:Karl.Tombre@loria.fr)>  
>Subject: CFP GREC'97

GREC'97  
Second IAPR Workshop on Graphics Recognition  
(sponsored by IAPR TC-10)

Nancy, France

August 22-23, 1997

<http://www.loria.fr/~tombre/grec97.html>

You are invited to participate in a single-track 2-day workshop on methods and systems for graphics recognition organized by IAPR TC-10 (Technical Committee on Graphics Recognition). The workshop will comprise several sessions dedicated to specific topics. For each session, there will be a main paper presentation giving the state of the art and stating the open questions for the session's topic, followed by a number of short presentations where each participant is invited to contribute by proposing solutions to some of the questions or presenting results of his/her work. Each session will be concluded by a panel discussion.

The workshop will be held just after the 4th International Conference on Document Analysis and Recognition (Ulm, Germany, August 18-20, 1997). Nancy is only a 4 hours drive from Ulm and the two cities are directly connected by train.

Attendance will be limited to 75 persons. All participants are expected to contribute actively to the workshop, either by presenting a full state-of-the-art paper, or by an abstract of remarks on a specific topic. You are invited to submit to the program committee an abstract (maximum 2 pages) of your proposed contribution to the workshop. Please indicate also if you would be willing to present a state-of-the-art paper on this topic, if invited to do so by the program committee.

Pre-proceedings of all contributed papers will be available at the workshop for the participants. After the workshop, the program committee plans to publish as a book revised versions of selected key papers, possibly including reports from the panel discussions.

Relevant topics include but are not limited to:

- raster-to-vector techniques
- recognition of graphical primitives
- recognition of graphic symbols in charts and diagrams
- interpretation of engineering drawings, logic diagrams, maps, charts, etc.
- analysis of line drawings, tables, forms etc.
- graphics-based information retrieval
- 3-D models from multiple 2-D views

- interpretation of low-level ("dumb") CAD data
- description of complete systems for interpretation of graphics in scanned documents
- performance evaluation in graphics recognition

#### Workshop Organization

#### Chairs:

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#### Program Committee:

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Horst Bunke Bern University, Switzerland  
Luigi P. Cordella Naples University, Italy  
Its'hak Dinstein Ben Gurion University, Israel  
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YoungBin Kwon Chung-Ang University, Korea  
Yves Lecourtier University of Rouen, France  
Lawrence O'Gorman Bell Labs, USA  
Arnold Smeulders University of Amsterdam, the Netherlands

#### Deadlines:

Abstracts (max. 2 pages, 3 copies): March 1, 1997  
Acceptance notification: May 1, 1997  
Camera Ready Manuscripts: June 15, 1997

Please send your abstract to one of the co-chairs. Contact either one of the co-chairs for further information.

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Here is a CFP for a special issue of Computer Vision and Image Understanding.  
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>From: Junichi Kanai <[kanaij@wiggins.ISRI.UNLV.EDU](mailto:kanaij@wiggins.ISRI.UNLV.EDU)>  
>Subject: CFP: Special Issue of CVIU on Document Image Understanding & Retrieval

#### COMPUTER VISION AND IMAGE UNDERSTANDING

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#### SPECIAL ISSUE ON DOCUMENT IMAGE UNDERSTANDING AND RETRIEVAL

Publication date: May 1998  
Paper submission date: February 1, 1997

Vast deposits of information, printed on paper, have accumulated over centuries. Advanced computer and communication technologies now offer better ways to store, retrieve, and distribute this information. Billions of paper documents are waiting to be made accessible via electronic media.

Document image understanding (DIU) research provides technology for automated systems for extracting and organizing information from paper documents. Generally, these applications apply image processing, pattern recognition, and information retrieval techniques to digitized images of document pages. A document image may contain text, graphics, pictures, or a combination of those objects. Some commercial products are of course already available, such as 'optical character recognition' systems for reading pages of machine-printed text, but research is still required to improve their performance on the full range of real-world variability in typography, image quality, and context. Performance evaluation of DIU systems requires scientific experimental design, a large test database, and sophisticated analysis of the results.

The goal of this special issue is to showcase state-of-the-art achievements in document image understanding and retrieval. Submitted papers should report the solution of a significant open problem: theoretical, algorithmic, and systems-architectural studies are welcome, as are papers describing practical applications supported by performance evaluations on a convincingly large scale.

Topics appropriate for this special issue include, but are not limited to:

- o document image understanding algorithms
- o document image and text compression algorithms
- o physical and logical page image segmentation
- o character and symbol recognition methods
- o document image characterization, indexing, and retrieval
- o post-processing (e.g. error-correction) algorithms
- o graphical object recognition (e.g. maps and engineering drawings)
- o image degradation models, calibration, & validation
- o algorithm and system performance measures
- o innovative applications

Send four copies of your manuscript (marked "DIU Special Issue") by February 1, 1997 to:

Computer Vision and Image Understanding  
Editorial Office  
525 B Street, Suite 1900  
San Diego, CA 92101-4495

#### GUEST EDITORS

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For instructions to authors:

URL <http://RVL4.ecn.purdue.edu/~kak/cviu.html>

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I just received this preliminary announcement for a small document analysis workshop to be held the day after CVPR'97. A formal CFP will be issued soon.

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>From: Luc Vincent <[lucv@adoc.xerox.com](mailto:lucv@adoc.xerox.com)>  
>Subject: Re: Document Image Analysis Workshop

- \* Document Image Analysis Workshop to be held in conjunction with CVPR 97 in Puerto Rico
- \* Workshop will be one day long, limited to 10 to 15 papers depending on submissions received
- \* Chair: Luc Vincent ([lucv@adoc.xerox.com](mailto:lucv@adoc.xerox.com)) and other committee members to be announced shortly

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Now a CFP for a articles on geometric hashing as a way to manage shape information.

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>From: [wolfson@math.tau.ac.il](mailto:wolfson@math.tau.ac.il) <Haim Wolfson (Tel Aviv University)>  
>Subject: CFP: Special Issue of IEEE Computational Science & Engineering

Special Issue of IEEE Computational Science & Engineering  
Call for Articles  
Geometric Hashing: A New Way to Manage Shape Data

The handling of geometric shapes is a core problem in a variety of applications and scientific domains, from robotics, computer vision, and digital libraries to medical imaging, molecular biology, and video compression. Examples include the recognition by a robot of objects in cluttered scenes, the reconstruction of shapes from partial information, the maintenance of parts archives in a CAD/CAM system, the structural comparison of protein molecules, and the detection of potential drugs fitting a given receptor shape.

The method chosen to index shape features is critical. It must be efficient enough to enable fast retrieval of relevant stored items, accurate enough to preserve the important geometric constraints of objects, and stable enough to remain invariant under prespecified sets of allowed shape transformations. Geometric hashing, a model-based, store-and-hypothesize class of algorithms proposed over a decade ago, is an increasingly promising approach to index-based store-and-retrieve schemes for geometrical database access. Successful, time-efficient, real-world applications have been built.

The Winter 1998 theme of IEEE CS&E will present the current state of the art as practiced in a variety of successful real-world applications, and pointers to potential new uses. Possible topics include:

- integration of shape representation and efficient indexing --
- extensions of the framework -- applications of the method -- analysis
- comparative studies.

Important dates: Send 8 hard copies of original manuscripts and an electronic version by May 15, 1997, to one of the guest editors:

Isidore Rigoutsos, IBM TJ Watson Research Center, PO Box 704, Yorktown Heights, NY 10598 USA; e-mail [rigoutso@watson.ibm.com](mailto:rigoutso@watson.ibm.com)

Haim J. Wolfson, Computer Science Dept., School of Mathematical Sciences, Tel Aviv University, Tel Aviv 69 978 ISRAEL; e-mail [wolfson@math.tau.ac.il](mailto:wolfson@math.tau.ac.il)

Authors will be notified of acceptance decision by June 30, 1997.  
Complete author guidelines available at IEEE Computer Society, fax 1-714-821-4010, email [cchweh@computer.org](mailto:cchweh@computer.org)

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This is an image analysis conference. Document processing is one of the topics of this conference.  
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>From: [columbus@bsing.ing.unibs.it](mailto:columbus@bsing.ing.unibs.it) (Carlo Colombo)  
>Subject: INT\_CONF\_IMAGE\_ANALYSIS\_PROCESSING\_ICIAP97

\*\*\*\*\* CALL FOR PAPERS \*\*\*\*\*

ICIAP'97

9th International Conference on Image Analysis and Processing  
Centro Affari, Florence, Italy - 17-19 September 1997

Organized by - University of Florence  
- IAPR Italian Chapter

The ICIAP International Conference on Image Analysis and Processing is organized biennially by the Italian Chapter of IAPR (International Association for Pattern Recognition) since 1981 with the aim to be an international forum for presentation and discussion of advances in the field and new perspective research areas. The scientific program of ICIAP'97 will include plenary lectures given by invited speakers and contributed papers presented in Conference sessions. Papers will be accepted for both oral and poster presentation. Conference proceedings will be published by Springer Verlag in the series Lecture Notes in Computer Science.

#### GENERAL CHAIR PROGRAM CHAIRS

A. Del Bimbo V. Cappellini A. Del Bimbo

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L. Alparone S. Baronti C. Colombo J.M. Corridoni  
A. Del Bimbo M. Lusini P. Pala E. Vicario

#### CONFERENCE DESCRIPTION

Contributions are sought on new research in the fields of Image Analysis and Pattern Recognition and related technologies. Topics include but are not limited to:

Image Analysis and Pattern Recognition Computer Vision

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Image Enhancement and Restoration Active Vision  
Image Segmentation Shape Analysis and Representation  
Statistical and Syntactical Patt. Rec. Motion Analysis and Representation  
Color and Texture Analysis 2D and 3D Object Recognition

Machine Learning and Understanding Architectures for Image Processing

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Neural Networks Multiprocessor Systems  
Image Understanding Massively Parallel Architectures  
Spatial Reasoning VLSI Architectures

Imaging Technologies and Image Databases Imaging Applications and Multimedia

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Vision-based HCI Biomedical Applications  
Merging Graphics and Vision Remote Sensing  
Image and Video Compression OCR and Document Processing  
Image and Video Indexing/Retrieval Integration with Other Media

#### PAPER SUBMISSION

Electronic submission (PostScript format) should be made via anonymous ftp to [dsi.ing.unifi.it](ftp://dsi.ing.unifi.it) in the directory [iciap97/incoming](ftp://dsi.ing.unifi.it/iciap97/incoming). Alternatively, send four hard copies of the manuscript to:

ICIAP'97  
Prof. Alberto Del Bimbo  
Dipartimento di Sistemi e Informatica  
Universita' di Firenze  
Via Santa Marta, 3  
I-50139 Firenze - ITALY

Papers should not exceed 14 pages (12pt font, 1.5 spacing); a separate page should include the names of the authors, their affiliation, and complete address. Papers will undergo blind refereeing by three separate reviewers of the Program Committee.

#### PROF. E. CAIANIELLO AWARD

In memory of Professor Eduardo Caianiello, an award will be assigned to the best paper presented at the Conference.

#### CONFERENCE SITE

Florence is the capital of the Tuscany region, in Central Italy, and is located on the Arno river, halfway between Rome and Milan (about 300 Km far from each), approximately 80 Km far from the Tirrenian sea. It is one of the most famous cities of culture and art in Italy and in the world, with great historical monuments and art masterpieces dating from the Middle Ages and Renaissance, up to the Modern Age. Florence surroundings are famous for their magnificent landscapes with many small typical villages plenty of historical heritages. Close to Florence are several historical sites of touristic interest like Siena, S. Gimignano, Arezzo, Pisa, Lucca with unique and worldwide famous monuments. Florence is one of the most important universities in Italy, and is also the center of a large high-technology industrial district, including, among the others, mechanical, electronic, space and textile industries.

The town has a population of about 500.000 inhabitants, reaching 1.800.000 considering the town hinterland. Florence is connected to the most important Italian towns through excellent highways (A1, A10), and is one of the main railway stations in Italy on the way from Milan to Rome. Daily flight connections are available to the most important airports in the world. The nearest airports are the Florence-Amerigo Vespucci International Airport (~ 8 Km NW, off downtown) and the Pisa-Galileo Galilei International Airport (~ 80 Km W, by highway or railway). Hotels and accommodations are available of every category.

September in Florence is sunny and warm, with temperatures ranging from 18 to 25 degrees.

#### REGISTRATION FEES

Special fees will be applied for student and early registration. IEEE, IAPR and AI\*IA members will also benefit of special registration rates. Information about the final registration rates will be found in the ICIAP'97 WWW page.

#### FURTHER INFORMATION ABOUT ICIAP'97

The WWW page <http://dsi.ing.unifi.it/iciap97/> will contain updated information about ICIAP'97. For further information, you can use the following E-mail address: [iciap97@dsi.ing.unifi.it](mailto:iciap97@dsi.ing.unifi.it).

#### IMPORTANT DATES

Paper submission deadline: January 30th, 1997  
Notification of acceptance: May 1st, 1997

Camera-ready copy: June 1st, 1997

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Now some CFP's not specifically related to graphics recognition, but of significant interest to TC10 members. They are mostly in the fields of computer vision, multimedia, and electronic publishing.

The first one is on electronic publishing. This seems to be a very interesting mix of computer graphics, digital typography, document description languages, color perception, and publishing.

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>From: lauli@sig.enst.fr (Laurence Likforman )  
>Subject: call for papers in Electronic Printing and Publishing

Computers & Graphics,

An international journal of systems & applications in computer graphics published by Pergamon Press

CALL FOR PAPERS

Graphics in Electronic Printing and Publishing

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The nature of Electronic Publishing is constantly changing. The device independent page description languages introduced in the mid-eighties paved the way to the desktop publishing revolution. Advanced editing and formatting tools enable authors to create directly documents of typesettable quality. The recent introduction of cheap colour inkjet and of affordable colour laser printers offers new opportunities for the production of colour documents.

Today's publishing philosophy is changing: the diffusion of documents by electronics means (CD-ROM, World-Wide Web) becomes more and more frequent. The way documents are displayed, both on traditional computers (CRT) as well as on portable computers (LCD), becomes a key issue. Display quality can be improved by appropriate font description and synthesizing systems. Printing on demand of a small number of exemplars will be the preferred way of generating printed information.

In addition there is a strong move towards short run color production in print. This requires new ways of organizing the workflow for the production. Computer integrated production is a requirement for press shops to be able to survive. This will lead to further integration of creative tools, prepress, press, and postpress, and to industrialized production methods.

These trends require new approaches in order to ensure the compatibility of displayed documents across "soft" and "hard" publishing platforms.

Authors of original contributions are solicited to submit papers which deal with subjects related to one of the following fields:

- Document description languages
- Digital Fonts & Typography
- Cross Media Publishing (paper, CD-ROM, WEB)
- Colour display, reproduction and halftoning
- CIM for the printing industry

Potential authors are advised to send an abstract of their paper by December 20, 1996.  
Full paper submission deadline: March 1, 1997.

Proposals for tutorial papers are welcome (deadline December 20th, 1996)

The guest editors

Juergen Schoenhut and Roger D. Hersch

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Next, a couple of multimedia related CFP's.

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>From: Catherine Rouyer <[Rouyer@tele.ucl.ac.be](mailto:Rouyer@tele.ucl.ac.be)>  
>Subject: WIAMIS'97 First Announcement

Sponsored by COST211ter

#### FIRST ANNOUNCEMENT

WIAMIS'97  
Workshop on Image Analysis for Multimedia Interactive Services

26 and 27 June 1997  
Louvain-la-Neuve, Belgium

The Workshop on Image Analysis for Multimedia Interactive Services will be held on 26 and 27 June 1997 at the Universit?catholique de Louvain, Belgium.

The objective of the workshop is to provide a forum for discussion of new and recent results on techniques for advanced image analysis and image processing for emerging interactive multimedia services in the context of MPEG-4 and MPEG-7. Therefore especially active participation from members of ongoing European collaborative R&D projects of the COST, ACTS and ESPRIT programs is encouraged in order to preserve its characteristic as a workshop. Authors are invited to submit a Planning Questionnaire (printed at the end of this Announcement) and later on an abstract of approx. 1000 words. Final contributions in form of a four page paper and a 20 minutes oral presentation are being sought for accepted contributions.

Areas of interest are targeted for both real-time and non real-time image and video applications and include, but are not limited to:

- \* Supervised and unsupervised segmentation of objects in 2-D/3-D image sequences
- \* Indexing of images and video
- \* Motion/texture/shape descriptors
- \* Identification and tracking of regions in scenes
- \* 2-D/3-D feature extraction
- \* Voice/audio assisted image/video segmentation
- \* Feature-based image/video query
- \* Searching and browsing of images and video
- \* Content generation and manipulation

In submitting papers please take into account the following deadlines

30 January 1997 Submission of Questionnaire  
15 March 1997 Submission of Abstracts (3 copies)  
15 April 1997 Notification of acceptance mailed  
15 May 1997 Submission of camera ready paper (4 pages)

Chairperson:

B.Macq - Universit?catholique de Louvain, UCL - Organisation  
T.Sikora - Heinrich-Hertz-Institute Berlin, HHI - Program

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Local Organisation Committee (UCL, Belgium):

P.Delogne, B.Macq, X.Marichal and C.Rouyer

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Planning Questionnaire

WIAMIS  
Workshop on Image Analysis for Multimedia Interactive Services

26 and 27 June 1997  
Louvain-la-Neuve, Belgium

If you plan to attend the International Workshop on Image Analysis for Multimedia Interactive Services (WIAMIS'97) please complete and return this form by 30 January 1997 to

Mrs Catherine Rouyer  
WIAMIS'97 Secretariat  
Laboratoire de Télécommunications et Télévision  
Bâtiment Stevin 2, place du Levant  
B-1348 Louvain-la-Neuve Tel: +32 10 47 80 75  
Belgium Fax: +32 10 47 20 89  
Email: [rouyer@tele.ucl.ac.be](mailto:rouyer@tele.ucl.ac.be)

in order to receive further information.

Name: \_\_\_\_\_  
Title Family Name First Name

Affiliation: \_\_\_\_\_

Address: \_\_\_\_\_

Country: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Email: \_\_\_\_\_

Please mark:

I intend to present a paper: Definitely  Probably

I intend to participate only: Definitely  Probably

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>From: KuoJuey Ray Liu <[kjrliu@isr.umd.edu](mailto:kjrliu@isr.umd.edu)>  
>Subject: CFP: Multimedia Signal Processing Workshop

THE FIRST IEEE SIGNAL PROCESSING SOCIETY WORKSHOP  
ON  
MULTIMEDIA SIGNAL PROCESSING

June 23-25, 1997, Princeton, New Jersey, USA

Sponsored by the IEEE Signal Processing Society

Organize by the Multimedia Signal Processing Technical Committee  
in cooperation with:  
Digital Signal Processing Technical Committee  
Image and Multidimensional Signal Processing Technical Committee  
New Jersey Center for Multimedia Research  
Speech Processing Technical Committee

FIRST ANNOUNCEMENT AND CALL FOR PAPERS

Thanks to the sponsorship of IEEE Signal Processing Society, the First IEEE Workshop on Multimedia Signal Processing (MMSP) will be held at Princeton University, Princeton, New Jersey, USA, on June 23-25, 1997. MMSP strives to bring together people in the signal processing society, the communications society, and the computer society, and to offer a forum for interaction. This workshop will feature keynote addresses, technical presentations, panel discussions, exhibit tours, and special sessions by invited speakers. To encourage interaction, we are planning sessions with the format of presentation followed by technical discussion on the same topic. These topics include, from a signal-processing viewpoint: integration of media, human/machine interfaces, and multimedia networks. In particular, papers are solicited for, but not limited to, the following general areas:

- 1 Multimedia Processing
  - 1.1 Compression for Multimedia (Audio, Video, Speech, etc.)
  - 1.2 Integration of Media
  - 1.3 Joint Audio-Video Processing
- 2 Multimedia Databases
  - 2.1 Indexing, Retrieval, and Archiving
  - 2.2 Authoring and Editing
  - 2.3 Digital Library
  - 2.4 Content Preparation and Presentation
- 3 Multimedia System Design and Implementation
  - 3.1 Parallel Architecture
  - 3.2 ASIC Design
  - 3.3 Software and Hardware Design
  - 3.4 System Integration
  - 3.5 Signal Acquisition



- 4 Human-Machine Interface and Perception
  - 4.1 Content Recognition/Analysis/Synthesis
  - 4.2 Speech Recognition and Synthesis
  - 4.3 Audio/Music Signal Processing and Synthesis
  - 4.4 Multimodal Interaction (Speech, Image, and Video)
  - 4.5 Audiovisual Perception Quality and Human Factors
  - 4.6 Cognitive Sciences

- 5 Multimedia Communications
  - 5.1 Equalization and Synchronization
  - 5.2 Transport Protocols
  - 5.3 QoS Control
  - 5.4 Error Concealment and Loss Recovery
  - 5.5 Rate Control and Hierarchical Coding
  - 5.6 Wireless Communication

- 6 Multimedia Applications
  - 6.1 WWW and Hypermedia
  - 6.2 Videoconferencing and Collaboration Environment
  - 6.3 Education and Distant Learning
  - 6.4 Telemedicine
  - 6.5 Home-Shopping, Gaming and Virtual Reality
  - 6.6 SDTV, HDTV, SHDTV and Video on Demand

- 7 Standards and Related Issues
  - 7.1 ITU-T Standards for Audiovisual Communication
  - 7.2 MPEG-1, MPEG-2, MPEG-4
  - 7.3 MHEG, DAVIC, ATM Forum, IETF
  - 7.4 HTML, VRML, and others
  - 7.5 Compressed Domain Processing

Prospective authors are invited to submit 5 copies of extended summaries of no more than 4 pages. The top of the first page of the summary should include a title, authors' names, affiliations, address, telephone and fax numbers and e-mail address if any. Camera-ready full papers (each up to 4 pages) of accepted proposals will be published in a proceedings and distributed at the workshop. For further information, please send email to [kjrlu@eng.umd.edu](mailto:kjrlu@eng.umd.edu) or visit our home page at <http://neuro.ece.wisc.edu/~tsuhan/mmtc.html>.

Please send paper submissions to: Amy Reibman, Room 4e520, AT&T Labs - Research, 101 Crawfords Corner Rd, Holdmel, NJ 07733-3030 USA; phone +1-908-949-3470; fax +1-908-949-3697; Text-only abstracts may be submitted electronically to: [amy@research.att.com](mailto:amy@research.att.com)

#### SCHEDULE

Extended summary received by: December 20, 1996  
Notification of acceptance: February 15, 1997  
Camera-ready accepted papers received by: March 15, 1997  
Advanced registration received before: May 15, 1997

#### PROGRAM COMMITTEE

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Teresa Meng, Stanford University

Ryohei Nakatsu, ATR MIC Research Labs  
Takao Nishitani, NEC  
Peter Pirsch, University of Hannover  
Mark Smith, Georgia Institute of Technology  
John Sorensen, Technical University of Denmark  
Ming-Ting Sun, Univ. of Washington at Seattle  
A. Murat Tekalp, University of Rochester  
Peter Westerink, IBM  
Avideh Zakhor, Univ. of California at Berkeley  
Ya-Qin Zhang, David Sarnoff Research Center

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Next, a few vision related CFP's.

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>From: [broggi@CE.UniPR.IT](mailto:broggi@CE.UniPR.IT) (Alberto Broggi)  
>Subject: CFP: EAAI Journal sp-issue on Machine Vision

CALL FOR PAPERS:

Engineering Applications of Artificial Intelligence Journal  
Elsevier Science

A Special Issue on

Machine Vision for Intelligent Vehicles and Autonomous Robots

Due to the reduced costs of image acquisition devices and to the increasing computational power of current computer systems, Artificial Vision has recently become a very popular method to sense the surrounding environment. A large number of research prototypes of vision-based autonomous systems have been developed worldwide by academic, industrial, and military institutions, each relying on different techniques.

Following these developments, it is planned to publish a special issue of the international journal Engineering Applications of Artificial Intelligence to be dedicated to AI techniques applied to vision-based navigation. The special issue will be published in February 1998.

Topics covered in the special issue may include, but are not limited to, the following:

Active and Real-Time Vision  
Object Recognition and Scene Interpretation  
Sensing of Unknown Environments  
Vision-based Real-time Robot and Vehicle Navigation  
Vision-based Guidance of Unmanned Vehicles  
Intelligent Sensors and Architectures for Low-level Vision  
Description of Research Prototypes

Authors are invited to submit application-oriented papers dealing with the various aspects of autonomous navigation, and how artificial intelligence techniques can help this task. Send five copies of the complete manuscript, before March 1st, 1997, to:

Alberto BROGGI  
Dipartimento di Ingegneria dell'Informazione  
Universita' di Parma  
I-43100 Parma, Italy  
Fax: +39 - 521 - 90 5723  
Email: [broggi@CE.UniPR.IT](mailto:broggi@CE.UniPR.IT)

Detailed instructions for authors are available from the above address, from <http://www.ce.unipr.it/eaai> or from:

Editorial Office, Engineering Applications of Artificial Intelligence,  
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Instructions for authors are also to be found on the inside back cover of any issue of Engineering Applications of Artificial Intelligence.

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>From: Yung Kong <[ykong@turing.cs.qc.edu](mailto:ykong@turing.cs.qc.edu)>  
>Subject: CFP: Vision Geometry VI

Vision Geometry VI (Part of SPIE's International Symposium on Optical Science, Engineering and Instrumentation, SPIE's Annual Meeting, 27 July - 1 August, 1997\*) San Diego Convention Center, San Diego, California, U.S.A.

\*Tentative schedule for Vision Geometry VI: 28-29 July 1997  
Abstract due date: 30 December 1996  
Manuscript due date: 30 June 1997  
Web page: <http://www.spie.org/web/meetings/calls/sd97/sd61.html>

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And finally, a product announcement.  
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>From: Bob Fisher <[rbf@dai.ed.ac.uk](mailto:rbf@dai.ed.ac.uk)>  
>Subject: HIPR: HYPERMEDIA IMAGE PROCESSING REFERENCE

#### NEW PRODUCT ANNOUNCEMENT

#### HYPERMEDIA IMAGE PROCESSING REFERENCE

A complete online tutorial for image processing,  
available on CD-ROM from John Wiley & Sons

#### AUTHORS/DEVELOPERS

Bob Fisher, Simon Perkins, Ashley Walker, Erik Wolfart  
Department of Artificial Intelligence  
University of Edinburgh, UK

The Hypermedia Image Processing Reference (HIPR) is a HTML-based multimedia teaching resource for image processing operations and techniques, extensively illustrated with online digitized images. It is designed for local network use within an organization rather than individual student purchase! HIPR is designed for multi-platform use (including UNIX, PC/Windows, or Mac), using Netscape or a similar graphical browser.

You can see a demonstration version of it at:  
[http://www.dai.ed.ac.uk/daidb/staff/personal\\_pages/rbf/HIPR/hiprdemo/html/hipr\\_top.htm](http://www.dai.ed.ac.uk/daidb/staff/personal_pages/rbf/HIPR/hiprdemo/html/hipr_top.htm)  
which also has links to ordering and site license information.  
The rest of this message describes HIPR and how it can be obtained.

#### HYPERMEDIA TUTORIALS

Bound together in hypermedia format on CD-ROM for easy browsing, searching and cross-referencing, the package provides tutorial information on 50 of the most common classes of image processing operations. These are described in a series of hyperlinked worksheets, giving step-by-step guidelines on how to use each operator, with before-and-after images showing good and poor results, a hot-linked glossary, and practical exercises to test the student's understanding.

#### EXTENSIVE IMAGE LIBRARY

A key feature of HIPR is its library of over 750 good-quality, digitized test images students can use for their processing experiments. These include both raw and processed images, from disciplines as diverse as architecture, astronomy, medicine and remote sensing. They can be imported into any of a variety of popular interactive image processing software packages (such as Khoros or Visilog) for further processing.

#### HANDY LAB CLASS TOOL

Designed for multi-user access across a local area network, HIPR is the ideal lab class tool. It will appeal across disciplines to teachers and advanced undergraduate/graduate students on introductory image processing and computer vision courses. A time-saving resource teachers can use to prepare their practical lab work and a fun new way to learning image processing for students, HIPR can also be easily customized to suit individual requirements. As a useful online reference for image processing operations, it will come in handy for anyone who uses image processing tools in their work.

#### CONTENTS

User Guide; Image Processing Operator Worksheets: Image Arithmetic, Point Operations, Geometric Operations, Image Analysis, Morphology, Digital Filters, Feature Detectors, Image Transforms, Image Synthesis; The Image Library; Other User Information and Resources: A to Z of Image Processing Concepts; Common Software Implementations; HIPRscript Reference Manual; Bibliography; Index.

FISHER/HYPERMEDIA CD-ROM ISBN 0-471-96243-0 August 1996  
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the license and how to order.

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That's all for now. To my US friends, wish you happy thanksgiving  
holidays.

Your TC10 chairman.

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