

International Association for Pattern Recognition Inc

An affiliate member of the International Federation for Information Processing

NEWSLETTER

Editor

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Contents News for Members 2 Directory Corrections 2 New Journal 2 Special issue 2 14th ICPR, Brisbane 3 Letters to the Editor 4 Conference Reports 5 Book Review 7 Conference announcements 8 Conference, Workhops & events calendar 10 Year at a glance 12

From the Editor's Desk

Dear Everybody,

One of the highlights in the life of my great aunt is to do the ironing while watching television. The other day, as she was doing her ironing while I was visiting, I had the great pleasure of witnessing our field making it to the news headlines: "Football playing robots!" Apparently, in the 15th International Joint Conference on Artificial Intelligence in Nagoya, Japan, the first tournament of the League of football playing robots took place (http://www.robocup.org/RoboCup/). I was thrilled to bits: "You see, you see auntie, how exciting is the field I work in?" She nodded... "Is that what you spent your time on? Trust men to develop something totally useless! Just like the chess playing computers the other day! Why

on Earth should somebody want to develop a football playing robot!?" She sighed... "Why can't they develop something really useful, like an ironing robot?" I tried to explain that a football playing robot is an achievement because it has real-time reactions and... She was not impressed! "All these scientists... Is it THAT difficult to make an ironing robot? Perhaps they do not KNOW how to do the ironing themselves! Let me tell you how: Look at the labels of the clothes first and divide them into those that need cool, medium and hot iron. If there is no label, judge from the material of the cloth what type it is and what sort of ironing it requires..." To my aunt's insistence I recorded the instructions. For the benefit of those who want to take up my great aunt's challenge, and the benefit of the part of humankind that lacks the know-how in ironing, the instructions are on the web page http://www.ee.surrey.ac.uk/Personal/M.Petrou/ironing.

Of course, my great aunt does not know anything about all the pattern recognition problems that have to be solved before a robot starts doing her ironing. So, it does not really matter what she thinks. Except... Except of course, my great aunt is an ordinary, a common, an insignificant taxpayer...

Maria Petrou

PS: A hint for the person that will take up my auntie's challenge: Go to the 14th ICPR to learn all about solving the Pattern Recognition part of the robotic problem!

News for Members

New name for the Korean Pattern Recognition Society

The Korean member society has a new name since July 1st 1997: "Computer Vision and Pattern Recognition Group of Korea Information Science Society".

The IAPR newsletter on the web

Previous issues of the newsletter can be viewed at http://www.ee.surrey.ac.uk/Research/VSSP/iapr/cvssp-iapr.html

DIRECTORY CORRECTIONS

Professor Seong-Whan Lee

New telephone number: +82 2 3290 3197

Professor T K Vintsiuk

New email address: vintsiuk@uasoiro.freenet.kiev.ua

Ukraine has a new country code

For direct dial to Ukraine use 380 instead of 7

New contact address for Austria

Dr Horst Bischof,

Vienna University of Technology,

Institute for Automation,

Pattern Recognition and Image Processing Group,

Treitlstrasse 3/183/2, A-1040 Vienna, Austria

bis@prip.tuwien.ac.at



A FRIENDLY CHAT OVER COFFEE

A NEW JOURNAL The International Journal on Document Analysis and Recognition (IJDAR)

The journal will be published by Springer beginning in the first quarter of 1998 with a special issue containing award-quality papers from the 1997 ICDAR.

It will include original research papers, correspondence items, overviews and summaries, and system descriptions. Topics include: Document Image Processing, Document Models, Handwriting Models and Analysis, Character and Word Recognition, On-line Recognition, Pen-based Computing, Multi-lingual Processing, Physical and Logical Page Analysis, Graphics Recognition, Map and Line Drawing Understanding, Storage and Retrieval of Documents, Text Analysis and Processing, Natural Language Issues, Information Extraction and Filtering, Performance Evaluation, Document Authentication and Validation, Implementations, Applications and Systems, Processing Text in other Contexts, Multimedia and Hypermedia Analysis, Time-varying Documents, Distributed Document Collections (Digital Libraries).

Submit 5 copies of no more than 30-page double spaced manuscripts to: IJDAR Editorial Coordinator, c/o Center for Automation Research, University of Maryland, College Park, MD 20742, USA.

For more information contact IJDAR@cfar.umd.edu, http://documents.cfar.umd.edu/IJDAR

Special Issue on Image and Video Processing for Emerging Interactive Multimedia Services

Topics: Supervised and unsupervised image and video segmentation, Identification and tracking of objects and regions in scenes, Efficient coding of 2D and 3D image and video content, Multi-functional coding of images and video, 2D and 3D image and video pre- and post-processing, Feature-based image/video query, Multimedia image and video content, manipulation, Representation of 2D and 3D visual information in Multimedia applications, Human factors in interactive Multimedia applications.

Submit your manuscript to one of the addresses below, by October 15, 1997.

K N Ngan, Elec Eng Dept, Univ of Western Australia, Nedlands WA 6907, Australia (Tel: +61 8 9380 1245, Fax: +61 8 9380 1065, king@ee.uwa.edu.au)

T Sikora, Image Processing Dept,

Heinrich-Hertz-Institute (HHI) Berlin GmbH, Einsteinufer 37, 10587 Berlin, Germany (Tel: +49 30 31002 622, Fax: +49 30 392 7200, sikora@hhi.de)

M-T Sun Elec Eng Dept, Box 352500, Univ of Washington, Seattle, Washington 98195, USA (Tel: +1 206 616 8690, Fax: +1 206 543 3842, sun@ee.washington.edu)

The 14th ICPR, Brisbane, Australia, 17-20 August 1998

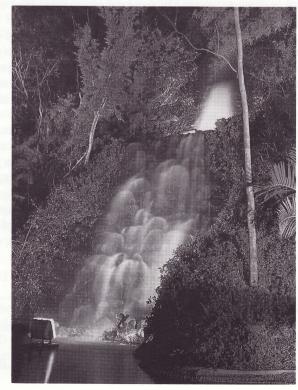


Brisbane is a modern, dynamic city situated in the southeast corner of the tropical state of Queensland - the most northerly state on Australia's east coast. Brisbane has achieved international recognition for having one of the most desirable climates in the world. Lying in the sub-tropics, Brisbane enjoys bright summers and mild, dry winters making it the perfect place to enjoy an outdoor lifestyle.

Brisbane (situated on the edge of picturesque Moreton Bay) is the heart of Australia's most popular holiday region - in easy range of the world famous beaches, unique outback locations, the Great Barrier Reef, idyllic tropical islands and magnificent rainforests, lakes and waterfalls.

Brisbane is a major city on the Asia Pacific rim with convenient direct access from many Asian and Pacific ports as well as North American, European and African destinations.

As the state capital it is the administrative centre for Queensland. A major seat of learning, Brisbane has three universities and several colleges of advanced education. Brisbane is also an important centre for scientific and medical research.



Letters to the Editor

Worse!

I mean your question how it is for you in the last newsletter. Basic science had to contribute to the budget cuts to an extend that even high profile projects like the CERN membership were in the risk-zone. This means that here we had essentially no fresh money for basic research in the last two years. Why should you stay at a university if you have to do the same work as in industry (only with a lower salary)?

Science is the process of correlating seemingly uncorrelated events. Therefore I correlated your editorial with an article in the local newspaper I read a few minutes earlier. The largest European farming subsidy in Sweden went to a telecommunication company that owns a 1357 ha farm with 2 employees (and probably a consultant to help with the EUpaper work)! The money helped subsidise the telecom part of the empire!

Reiner Lenz, Sweden

Dear Maria,

I enjoyed your wickedly cynical editorial on getting grants, in the last issue of the newsletter. Another issue is the Examiners' fees and more particularly expenses for PhD Orals. We spend, perhaps 3 or 4 days say (20-30 hours) reading a thesis to be paid about 80 pounds (or 48 after tax). These rates are at contract cleaning level, worse in fact because they are usually done on Sundays or late at night. This is using an expertise usually gained at expense to one's self. For people who are meant to be clever we are pretty stupid.

Then coming from Glasgow it is usually, Recommended, Expected, Strongly Recommend to use Standard Class rail travel. You have to read the thesis in advance because you can't read standing between two carriages with someone's dog sniffing the thesis. OK you booked a seat but your train is 7 hours late from Penzance.

Travel first class? Travel by Air? What do you think you are, a professional or something? Have you noticed when you do travel by air all the academics hanging about the entrance to the Business Class lounge trying to spot one of last year's graduates to sign them in and wishing that they had been nicer to them when they handed their project in late?!

OK 9 hour second class to the University of Wandercity, fine! You don't want to stay overnight, do you? OK we could put you up in a hall of residence. Dinner? Dinner? Do you think we are made from money? Academics these days, tut tut, mercenary or what?

I suggest we put the examinations out to tender! We could run an advert asking suitably qualified (and cheap) people to put in their bid to examine the thesis together with fee and travel expenses required.

Steve Marshall, UK

Dear Dr Petrou.

We have the same feeling. I've copied your editorial in July's issue and distributed to our collegues.

An academic in Taiwan, RC

Dear Maria,

I really enjoyed your editorial in the last issue of the newsletter. Very entertaining as well as pointed, not to mention, poignant humor.

Indeed, the model of "business" has got into everything, it seems.

I helped start a special interest group in ACM called SIGCHI, Special Interest Group in Computer Human Interaction in the early and mid 80's. It was an organization of volunteers – experts in the area. I co-chaired the conference in 1991. Somewhere around 1993 ACM put more and more pressure – and the organization seemed to fold – to run SIGCHI more like "a business". This is pretty ironic because, as far as I can see, nobody really knows how to run businesses though of course we, as a society, believe in the "hero" theory despite the fact that a Wozniak or a Jobs can have one amazing success followed by a string of failures. It seems to me that both scientists and artists have much more consistent records than business leaders. It is also ironic because business itself is rejecting the old models. (cf The Death of Competition by J F Moore).

Anyhow, the other "funny" story I have is this. When I came to work at NYNEX in 1986, my boss told me that one of the areas for the AI lab (which I started) was machine vision. I said, "Machine Vision? Why, in a phone company?" So – I got a whole story about why it was important and hired someone who put together a world class group. Eventually, we made the world's best handprinted character recognizer and got subcontracts from Litton, Hughes, US Post Office etc – and then the corporation said, "That's great. But wait a second here. Is this really something a phone company should be doing?"

Ironically, it seems that the modern world is so intent on controlling, measuring, manipulating and above all PROF-ITTING in the short term from research that we are collectively killing the goose that might well have continued to lay golden eggs!

In the New Bell Atlantic, I am attempting to put more of modern (20th century as opposed to 19th century) scientific thought into business processes. As science discovers more about human decision making, systems thinking, organizational learning, ecology, etc, there are implications for how business can be run in a more profitable and sustainable fashion. One example is to borrow the idea of public testability from science and apply it to management decision making. Another is to move from using curve fitting for business predictions (without understanding underlying structure) to scenario based planning that strives to uncover underlying structure. More information on these topics, references, and relevant links can be found at http:// www.truthtable.com under "Learning Organizations".

John T., USA ("truthtable@aol.com")

CONFERENCE REPORT

The 10th Scandinavian Conference on Image Analysis (SCIA'97)

June 9-11, 1997 Lappeenranta, Finland

The subtitle of the conference was "Across the borders: Future Directions in Image Analysis", and its venue was the Lappeenranta University of Technology, 8 km outside this lively town in South East Finland.

From a total of 196 papers received, 136 were accepted. This is almost the same as in previous SCIA conferences, suggesting that they attract a faithful audience. However, despite of its name, this was not a conference for Scandinavian people only. In fact the majority of the 200 attendants came from outside Scandinavia. Curiously enough, after guest-land Finland, the second largest delegation came from France, while Sweden got ranked third.

The vast majority of papers was presented in two (sometimes three) oral sessions. The poster sessions were of limited scale: 38 posters divided in two sessions. Being scheduled at the end of long days, they did not attract large crowds, except for the drinks that were served in the same room. A variety of topics were addressed, but the trends were nicely reflected in the talks of the four invited speakers.

Alex Pentland held a talk on "Real-Time 3-D Interpretation of human Behaviour". His impressive multimedia show attracted a lot of enthusiasm, because he gave us a "glimpse of the future" by showing how some computer vision applications could affect everyday living.

"New Techniques for Object Detection and Recognition", was the title of David Casasent's talk. However, he showed in fact that a lot of old techniques can be pushed further into solving new problems, and that making combinations of methods and results is often the key to success.

Glenn Healey spoke about "Recognising Objects in Colour Images" in what was in my opinion the best talk of all. He clearly addressed problems related to colour image analysis, as well as some solutions to them. Colour was given a lot of attention in the conference as a whole. Traditionally, an edited book that bundles some of the best papers in SCIA is published afterwards. This time, it will be completely dedicated to colour.

Patrick Van Hove shedded some light upon the objectives behind the European Commission's research funding policies in his talk "Technology Transfer in Machine Vision: point of view". This talk was common to a workshop on technology transfer in machine vision. There was also a second workshop on technology transfer in neural computing. Both were parallel with the conference. The connection with the workshops was not limited to this one talk, as people could freely switch from conference to workshops and vice versa. This cross-over became very stimulating with respect to the industrial exhibition. You could, for example, hear a talk on spectral measurements, and in the next coffee break, visit the exhibition of a company specialised in spectrometry. Finnish research has a strong emphasis on technology transfer, and they have reason to be proud of it, judged by what was shown in the workshops.

The same idea returned in the panel discussion on "Future Directions in Image Analysis". The directions as pointed out by panelists were quite diverse, but a general tendency was: while theory offers the necessary foundations for applications to rely on, it is definitely the time to bridge the gap and put more effort into using academic knowledge in industrial applications. Not exactly new words, but it didn't hurt to hear them once more.

Besides the sessions already mentioned, there was an additional one: the sauna session. According to good Finnish tradition, one could revitalise in the beautiful surroundings of a lake and pine forest. No wonder this session was among the busiest of all, and the relaxed atmosphere created there seemed to spread over the rest of the conference.

The social program added a lot to this atmosphere. A cruise on Lake Saimaa set the scenery with a seemingly endless sunset. The banquet, held in a former brewery, offered traditional ingredients such as regional food and folk-dances. Erkki Oja gave a dinner speech in which, at the occasion of the 10th edition, he looked back upon previous SCIA conferences. A constant seemed to be the Nordic summers and their effect on foreign participants. This was also true for this edition, since the very busy program left participants with few other options than to deprive of sleep and enjoy the long days. After the speech, "Ewert", the only person that attended all 10 SCIA meetings, received a symbolic prize. At least he will not dare to stay away from next editions. More serious prizes were presented for the best achievement in "Technology transfer" and for the best Nordic PhD thesis.

The highlight of the evening was the announcement of the next edition. Apparently, Danish future organisers intended to propose Copenhagen as the next location, but were persuaded to consider Greenland as an alternative. An improvised voting was held at the banquet, and a vast majority preferred the more exotic option. So promise was made to find out whether this would be realistic at all.

The conference was preceded by a workshop on Self Organising Maps, the first in its kind. The location, Helsinki, being the cradle of SOM, could not have been chosen better. A post conference workshop in St Petersburg made the connection with current work on Image Analysis in Russia. The conference credo "across the borders" became very tangible here. Those who could resist the cultural charm of the city (not an easy task) got an overview of the state of the art by ten invited speakers.

This concluded a conference that will be remembered for its high quality scientific content and bridges to industry, but no less for its very enjoyable and friendly atmosphere.

Stefan Livens, University of Antwerp, Belgium

Reliable sources inform us that the DIY membership page of IAPR, after some initial hi-cups, is now functioning. Try it for yourself:

http://george.ee.washington.edu/IAPR/index.html

Third International Workshop on Visual Form (IWVF-3)

May 28–30, 1997 Capri, Italy

The subject "visual form" is on the one hand rather specialised, but on the other hand can be approached from many viewpoints, such as geometry, perception, computer vision, etc. No doubt these many viewpoints are related to the vast experience we have with visual form - it contributes not only to our survival, but also to many aesthetic pleasures.

The workshop was again organised with great care for every detail by Carlo Arcelli, Luigi P Cordella, and Gabriella Sanniti di Baja. It was sponsored by their affiliations, the Department of Computer Science and Systems of the University of Naples Federico II and the Institute of Cybernetics of the National Research Council of Italy in Arco Felice (near Naples), and, of course, by the IAPR. The latter sponsorship was nicely reflected by the almost complete presence of its executive committee. About ninety researchers from sixteen different countries participated in this workshop. Eighty of the participants were (co-)authors of contributions, a number typical for a real workshop.

The three days format of the workshop closely resembled that of the successful last two: every day three platform sessions, each consisting of three or four oral presentations, and a poster session, consisting of approximately ten posters. The organisers had succeeded in inviting Steven Zucker, Gerard Medioni, Kim Boyer, Jan Koenderink, Jan-Olof Eklundh, Michael Leyton, Jean Serra, Robert Haralick, and Harry Wechsler to give the opening lecture of each platform session. Unfortunately, Michael Leyton was prevented from presenting his lecture by a sudden illness.

Of the 79 submitted papers, 51 were accepted, 22 as oral presentations and 29 as posters. At the workshop, apart from the program, only abstracts were distributed. A comprehensive list of participants was also available, fortunately including email addresses: email played already an important role in the preparations for the workshop, but it is equally important for its follow-up. Another important follow-up is the proceedings of the workshop, which will be published again by World Scientific, Singapore, under the title "Advances in Visual Form Analysis". This book, edited by the workshop organisers is scheduled to be available soon. Apart from that, an extended version of some selected papers will be published in a special issue of the Image and Vision Computing Journal.

Of course, the venue contributed significantly to the success of the workshop, especially to the interaction among the participants: meeting them by day in the Palazzo dei Congressi with its quiet garden, and by night in the elegant places where the dinners were held, or on the picturesque streets of Capri, where everything - and everyone - is within walking distance, even people playing hooky. No doubt the most socialising event was the Neapolitan farewell party, at which hitherto unknown talents for music and dance forms were revealed with the help of a local tarantella band.

Albert M Vossepoel,
Delft University of Technology, The Netherlands

The IV International Conference on Pattern Recognition and Information Processing (PRIP'97)

May 20-22, 1997 Minsk, Belarus

This was the first ever IAPR sponsored conference in a country from the CIS (ex-USSR). For the fourth time in a period of two years, this topical conference was held in the capital of Belarus. The official conference languages were English and Russian. However, the majority of the papers (80%) were presented in English. The total number of papers submitted was 160 and 130 were included in the Conference programme.

More than 110 scientists, coming from Belarus, France, Italy, Holland, Czech Republic, Poland, Lithuania, Russia, and Ukraine, took part at the conference.

Main topics were: Pattern Recognition, Image Processing, Modelling & Visualisation, Document Recognition, Architectures for Image Processing, and Applications.

The Conference was organised in 8 sessions, scientific results were, in the average, of good scientific level, very few below a standard level, some of them very interesting.

The program included also two plenary presentations by A Gagalowicz (France) devoted to recognition of 3D objects with decision trees and by Yu Kharin (Belarus) devoted to optimality and robustness of statistical classification.

The proceedings of the conference are published in two volumes; the first volume (400 pages) includes only papers in English and the second one (350 pages) includes papers in both English and Russian.

The Conference organisers created a special prize for the best student paper presented at the conference. A Diploma and some cash were given to D Popel, Belarussian fifth-year student of State University of Informatics and Radioeletcronics.

The social program was well organised and rich. Participants attended a Musical Comedy at Minsk Opera theatre and tested Belarussian cooking and drinking in a delicious banquet.

Life in Minsk is pleasant, in fact it is an elegant and prestigious capital of the central Europe; it is well connected and easy to visit, because of the efficient public transportation and the very kind and worm inhabitants.

It was decided to organise the V International Conference in Minsk in May 1999. In my opinion, this event will be of great scientific interest, becoming one of the great occasions to exchange information between scientists of East-West Europe.

Vito DiGesu, University of Palermo, Italy

PS The Conference proceedings are available from the organisers. For more information, contact S Ablameyko (abl@newman.basnet.minsk.by).

The IFIP celebrates its 36 years of existence: http://www.ifip.or.at/36years/36years.html

Pattern Recognition in Practice V Vlieland, June 4-6, 1997

This was my first Vlieland experience and, hopefully, not my last! There is always something very special about conferences or workshops in unique locations, a small number of participants with common interests and expertise, single streams and lots of communication, food and life. This was Vlieland - one of a few most interesting islands on the northern coast of the Netherlands and a conference venue at a hotel right on the beach where it is possible to swim!

The conference was extremely well organised including transport logistics (buses, ferries, etc), presentation venue and conference social events. The meals were excellent and the conference banquet was just great fun - including a local energetic seafaring choir! The ability of staff to translate question/answer times into some meaningful text was very impressive and quite useful.

Well, now for the conference, itself. Consistent with the theme of Vlieland most papers dealt with topics related to pattern recognition or image interpretation and were, in general, of very high quality and professionally presented. The papers could be divided into those which emphasised the specific application problem and those which were focused on general theory/technologies. Applications varied from document understanding or scene labelling to individual waveform and cell recognition. However, more common was a focus on general theoretical-technologies for pattern recognition (embedded in an application) and, in this vein, the following common themes emerged.

One, there was interest in issues related to the unification of models for pattern recognition using (stochastic) graphical models. Relations between Bayesian Networks, Markov Models, graph matching were discussed particularly with respect to the search methods used to derive optimal representations. Algorithms such as EM, relaxation labelling and stochastic search (simulated annealing, genetic algorithms) were discussed and compared. Two, there was an interest in the use of hybrid classifiers for the improvement of classification performance. Although somewhat heuristic this approach has associations with "agency-type" architectures which are becoming quite popular elsewhere. Three, there was an interest in feature generation and selection for pattern recognition systems - particularly when the selection process is driven by feedback from the classifier's performance. This was particularly relevant to a number of papers using neural network classifiers.

Finally, and more generally, there seemed to be an underlying tendency in the presentations to incorporate more domain knowledge or structural constraints on representations and search procedures than occurs in traditional pattern recognition and it is my view that this will lead to more robust and useful recognition and interpretation technologies.

Congratulations to Edzard Gelsema, the organising and program committees, and staff who made this conference so special and important to us all.

So, in all, let Vlieland live on!

Terry Caelli, Perth, Western Australia

BOOK REVIEWS

Object Management Architecture Guide, by *R M Soley and C M Stone*, John Wiley & Sons, pp 164, ISBN 0-471-14193-3, Third Edition

This book is the fundamental document of Object Management Group (OMG) and its mission. The OMG is a non-profit international trade association founded in 1989 including currently over 700 information system vendors, software developers, and users with the vision to produce a framework and specifications for commercially available object-oriented environments. Thus, the OMG is dedicated to maximising the portability, re-usability, and inter-operability of software.

The Object Management Architecture (OMA) Guide contains a basic terminology and guidelines used in a number of documents produced by this group. In the first introductory chapter, the goals of the OMG are explained and the key tool, object-oriented approach, used for their solution is defined. Typical practical problems and their OMG solutions are described in the second chapter. The chapter also defines the components of the OMA standard, Object Request Broker, Object Services, Common Facilities, and Application Objects.

The third chapter is dedicated to technical objectives of the OMG, ie what properties should be conformed by a proposed technology. A formal object model, called the Core Object Model, specifying the features that all OMA-compliant object systems should support, is described in the fourth chapter. A deeper discussion of the components of the OMA providing the framework for writing specifications, the Reference Model, is given in the fifth chapter. The guide contains also a glossary of object-oriented terminology and outlines the policies and procedures used by the Technical Committee of the Object Management Group.

The authors deal with the object-oriented approach of software solutions. However, the book structure is non-object-oriented. The reader can become lost in a number of abbreviations, with no list of their definitions included. Furthermore, the explanations of the protocols of proposals and adoptions of standards are often mixed with definitions of proposed standards. I hope that a future edition of this document will clarify these points.

Although I do not think the book, representing a huge number of international companies and organisations, makes a good impression and shows a clear image of the purpose of the OMG, this unique document in the root of the tree of all OMG's documents should not be overlooked by people creating distributed object-oriented computing environments.

Radek Marik, University of Surrey, UK

The IFIP Newsletter is now on line at http://www.ifip.or.at/newsletters/newsl.html

CONFERENCE ANNOUNCEMENTS

GKPO'98: 5th International Conference on Computer Graphics and Image Processing May 18-22, 1998 Borki, Poland

Topics: Physical-based and multisensor models of image formation, Image enhancement, restoration and compression, Image analysis and scene understanding, Models for recognition of objects and scenes, Modeling of human visual perception and mental imagery, Structure reconstruction, 3D imaging and image synthesis, Visualization and graphical data presentation, Virtual reality and pictorial interaction, Pictorial data bases and archivisation, Parallel and neural networks image processing, Computational geometry, Computer-aided graphic arts and animation, Industrial, medical and other applications

Submit three copies of a no more than 8 pages manuscript to the address on p 10.

30 October 1997 Deadline for paper submission

IASTED International Conference Computer Systems and Applications March 30 - April 2, 1998 Irbid, Jordan

Topics: Computer organization, Architecture, Software, Languages, Distributed and parallel systems, Computer networks, Interconnection networks, Fuzzy logic, Neural networks, Databases, Multimedia, CAD, Artificial intelligence, Graphics, Vision, Simulation and their applications to Engineering, Science, Business, Management, Education, Medicine, Image processing, Communication, Agriculture, Internet/Intranets, etc.

Submit to the address on p 10, 3 copies of a 600 word abstract or a 3-hour tutorial proposal which should indicate the topic and scope of the tutorial, the background knowledge expected of the participants, and your curriculum vitae.

Deadline for paper submission 15 October, 1997 **Deadline for Tutorials**

1 November, 1997

CVPR'98 Comptuter Vision and Pattern Recognition 23-25 June 1998 Santa Barbara, USA

Topics include: Applications, Image and Video Libraries, Learning in Vision, Low-level Vision, Colour & Texture, Medical Image Analysis, Motion Analysis, Object Recognition and Indexing, Pattern Analysis, Physics-based Vision, Realtime and Active Vision, Segmentation, Grouping, Shape Representation and Recovery, Vision and Graphics, Vision-based Computer Interfaces.

Submit 5 copies of an anonymous manuscript to the address on p 10. Include a separate page with author information etc. Notify by email the title and authorship of the submitted paper.

Deadline for paper submission 21 November 1997

CGIM'98 International Conference on Computer Graphics and Imaging June 1-4, 1998 Halifax, Canada

Topics: Rendering (Illumination models, Volume rendering, Rendering algorithms and systems), Modelling (CAD, Modelling of natural phenomena, 3D object extraction, Surface reconstruction, Geometric algorithms, Computational geometry), Animation (Motion control and kinematics, Particle systems, Simulation, Collision detection, Character animation, Plausible motion simulation, Facial animation, Human figure animation), Image processing (Medical imaging, Image acquisition techniques, Image and pattern analysis, Image manipulation, Computer vision, Image compression, Image synthesis techniques), Visualization (Visual information systems, Scientific and mathematical visualization, Virtual Reality, Holographic imaging, Interface issues, Humancomputer interaction, VRML, Visualization and direct manipulation of virtual objects), Applications.

Submit to the address on p 10, 3 copies of a 1000 word abstract or a 3-hour tutorial proposal indicating the background knowledge expected of the participants, the objectives, the time allocation for the major course topics, and your CV.

Deadline for paper submission **Deadline for Tutorials**

15 November 1997 15 November 1997

Deadline for camera-ready copy 2 April 1998

IGARSS'98 International Geocsience and Remote Sensing Symposium July 6-10, 1998 Seattle, USA

All topics of interest to the IEEE Society of Geoscience and Remote Sensing. Submit your 1-page singly spaced abstract to the address on p 10, fax it, or email it as plain text.

Deadline for paper submission 7 January 98

EUSIPCO-98 Special Session on Watermarking, Copyright Protettion and Access Control for Multimedia Services

8–11 September, 1998 Rhodes, Greece

Topics: image, video and sound watermarking image, video and sound scrambling, encryption and cyphering document and image authentication access control in digital TV, multimedia services, client-server architectures.

Submission proceedure as for EUSIPCO-98 (see previous issue of newsletter). Submissions by November 15 to I Pitas, Dept of Informatics, Univ of Thessaloniki, Box 451, Thessaloniki 54006, Greece. (Tel: +30 31 996304, Fax: +30 31 996304, pitas@zeus.csd.auth.gr)

Tenth IMDSP Workshop 98

July 12–16, 1998 Alpbach, Austria

Topics: 3D image acquisition, Object localization and recognition, Volume data processing, Multisensor fusion, 3D registration, Signal processing for rendering, 3D structure from motion and stereo, Multiview image coding, Applications (medical, robotics, automated inspection, virtual reality, communication etc).

Submit a 2-4 page summary in final form to the address on p 10.

Deadline for paper submission 30 January 1998

EEMCV

Empirical Evaluation Methods in Computer Vision

June 21-22, 1998 Santa Barbara, USA

Topics include: Database collection, independent evaluation methods, comparison of different methods to solve classical computer vision problems, evaluation of medical imaging algorithms in clinical settings, evaluation of algorithms for industrial applications, design of experiments.

Submit 3 copies of a no more than 30-page double-spaced manuscript to the address on p 10.

Deadline for paper submission 30 January 98

IWSSIP'98 5th International Workshop on Systems, Signals and Image Processing 3-5 June, 1998 Zagreb, Croatia

Topics: General techniques and algorithms (Adaptive DSP algorithms, Digital filter implementations, Multidimensional signal processing, Image analysis and segmentation, Image restoration and enhancement, Image representation and modeling, Digital transforms), Technologies (Neural networks, Expert systems, Fuzzy systems, Edge detection, Pattern/object recognition, Multisensor data fusion), Image and video coding (Vector quantization, Fractals, Transform coding, Subband and Wavelet coding, Motion estimation, Shape description and recognition, Texture coding, Colour processing, Standards), Multimedia networks and protocols (Multimedia services, Multimedia servers, B-ISDN and ATM, Internet, Wireless and mobile networks), Implementations (Analog and digital circuits and systems for audio, image and video processing, Architectures and VLSI hardware, Programmable signal processors, Real time software), Applications (communications, television, digital production, broadcasting, medical, sensing, robotics, telepresence, virtual re-

Submit 4 copies of a 2-3 page summary of a paper to the address on p 10.

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Deadline for paper submission 15 January 1998 Deadline for camera-ready copy 1 April 1998

ICIP'98

International Conference on Image Processing October 4-7, 1998 Chicago, USA

Topics: General Techniques and Algorithms (Filtering, Enhancement, Restoration, Coding, Segmentation, Multiresolution Processing, Multispectral Processing, Image Representation, Image Analysis, Image Understanding, Interpolation and Spatial Transformations, Neural Networks for Image Processing, Architectures and Software), Computed Imaging (Acoustic, Radar, Tomography, Magnetic Resonance, Geophysical and Seismic, Speckle Imaging, Radio Astronomy, Computer Holography, Confocal, Electron Microscopy, X-ray Crystallography, Coded- Aperture Imaging, Real-Aperture Arrays), Image Scanning Display and Printing (Scanning and Sampling, Quantization and Halftoning, Color Reproduction, Rendering, Graphics and Fonts, Image Quality, Visualization), Video and Multimedia (Multimedia, HDTV, Enhanced Quality TV, Packet Video, Motion Detection, Analysis and Estimation, Image Sequence Processing. Video Data Base, Low Bit Rate and Very Low Bit Rate Coding, Video over Wireless Channels, Video Signal Processor ICs, Access to and Retrieval from Multimedia Databases), Applications (Application of Image Processing Technology to any field, including the Biomedical Sciences, Astronomy, Geosciences, and Environment and Document Processing).

Submit to the address on p 10 6 copies of a 2-3 page summary of a paper including figures and references. Include a cover sheet stating the technical area(s), the nature of the problem addressed and its importance, its original contribution and author's contact information.

Deadline for paper submission Deadline for camera-ready copy

16 January 1998 5 June 1998

VLBV98 International Workshop on Very Low Bitrate Video Coding

Theme: Visual Content Analysis and Coding

October 8-9, 1998 Urbana, IL, USA

Topic: Video representation and coding techniques being developed for MPEG-4, MPEG-7, and beyond with special interest in Feature extraction, Representation and coding, 3D modeling and virtual reality, Coding of topological data (meshes, boundaries, etc), Segmentation, Face encoder, Content classification and identification.

Submit 4 copies of a 2-4 page summary to the address on p 10.

Deadline for paper submission 1 May 1998 Deadline for camera-ready copy 1 September 1998

SPIE Journals on CD-ROM

Optical Engineering, Journal of Biomedical Optics and Journal of Electronic Imaging will be available on CD-ROM. For more information, contact Tel: +1 360 676 3290, Fax: +1 360 647 1445, bookorders@spie.org, http://www.spie.org/orders.html

FORTHCOMING CONFERENCES, WORKSHOPS AND EVENTS

1997	Event	Location	Contact
14-17 Oct	Machine Inspection,	Pittsburgh,	http://www.spie.org/info/is97.html
SPIE	Intelligent Robotics	USA	and the second of the way of the second seco
20-22 Oct	Computer Architecture for	Boston, USA	M Ferretti, DIS Univ di Pavia, Via Ferrata 1, I-27100
CAMP'97	Machine Perception	or Chemical Reserve	Pavia, Italia. Tel: +39 382 505365, Fax: +39 382 505373,
	May Control Control	pois maintain	http://www.cs.umass.edu/~camp97
3–5 Nov	Document	Curitiba,	N A Murshed, Lab of Document Im Anal & NN,
BSDIA'97	Image Analysis	Brazil	Mestrado em Comput, PUC-PR, R Imaculada Conc, 1155,
BODIT) /	Illiage / tharysis	Diazn	Curitiba, PR 80215-901 Brasil. murshed@rla01.pucpr.br
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6 7 N	T. C	A 1 1 1 1	Tel: +55 41 330 1668, Fax: +55 41 330 1620
6–7 Nov	Information	Adelaide	P Mibus, CSSIP, SPRI Building, Technology Park Adelaide,
IAIF'97	Fusion	Australia	The Levels, SA 5095 Australia.
	Landelman Proprietaria (Translation)	Color Report	Tel: +61 8 83025019, Fax: +61 8 83023124,
	manufacture (1885) di como manufacti di El facio di montifere	cost to marketing	pamela.mibus@cssip.edu.au, heping@cssip.edu.au
		and the second s	http://www.cssip.edu.au/Conferences/IAIF/Welcome.html
9–12 Nov	Intelligent	Boston,	A Broggi, Dip di Ingegneria dell'Informazione, Universita
CVIV	Transportation	Massachusetts	di Parma, I-43100 Parma, Italy. Fax: +39 521 90 5723,
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	Danot Spinny's Essential as	IO, OOLIN, SIR	http://www.ieee.org/itsc/itsc97
1998	Event	Location	Contact
6–9 Jan HICSS	Complex Computer	Hawaii	A Broggi (address as above),
	Systems	G 1	http://www.ce.unipr.it/hicss
12–13 Jan	Soft Computing	Calcutta	A Ghosh, Machine Intelligence Unit,
IWSCIS	Intel Systems	India	Indian Stat Inst, 203 BT Rd, Calcutta,
	stating the Jechnical area(s).	Teens revoca	700 035 India. soft@isical.ernet.in
ididaso limigo	o en senetionne ali bas bases	ubbit maldere	Tel: +91 33 577 8085x3100, Fax: +91 33 556 6680
9–11 Feb	Multimedia	Churchill	H Selvaraj, Gippsland School of Comp &
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30 M –2 Apr	Computer Systems	Irbid	A A Nsour, Dept of Comp & Control Eng, Hijjawi
IASTED	Applications	Jordan	Faculty of Applied Engineering, Yarmouk Univ,
MOTED	reprications	Jordan	Irbid, Jordan. ansour@yucc.yu.edu.jo
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(7 A '1	T .		Tel: +1 403 2881195, Fax: +1 403 2476851
6–7 April	Image	Arizona	N Kehtarnavaz, Dept of Elec Eng, Texas A&M University,
SSIAI	Analysis	developed for	College Station, TX 77843-3128 USA.
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18–20 May	Computer Graphics	Poland	GKPO'98, Institute of Computer Science PAS
GKPO'98	Image Processing	(merhes, 16%)	ul Ordona 21, 01-237 Warsaw, Poland
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	warming Stanish S at incaping	n.l. timedn/3.4	http://www.ipipan.waw.pl/MGV/GKPO98.html
1–4 June	Computer Graphics	Halifax	IASTED, CGIM'98, #80, 4500 - 16 Avenue NW,
CGIM'98	Imaging	Canada	Calgary, Alberta, T3B 0M6, Canada.
		Canada	Tel: +1 403 2881195, Fax: +1 403 2476851
	"It'" vgus (illeri'skalaka ustra)		iasted@cadvision.com,
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3–5 June	Mathematical	Amsterdam	http://www.iasted.com/cgim98/halifax.html L M v d Eersten-Schultze, CWI, Kruislaan 413,
ISMM '98	Morphology	Netherlands	NL 1098 SJ Amsterdam, The Netherlands.
	F. 4555ml of Sharpland tree branch	THE PROBE	Tel: +31 20 592 4189, Fax: +31 20 592 4199,
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3–5 June	Signal	Zagreb	B Zovko-Cihlar, Faculty of Elec Eng & Computing
IWSSIP'98	Processing	Croatia	Dept of Radiocommunications - IWSSIP'98
			10000 Zagreb, Unska 3, Croatia

FORTHCOMING CONFERENCES, WORKSHOPS AND EVENTS

1997	Event	Location	Contact
2–6 June ECCV'98	Computer Vision	Freiburg Germany	http://www.informatik.uni-freiburg.de/eccv98/
18–20 June VI98	Computer Vision	Vancouver Canada	M Cheriet, Dept de Genie de la Production Automatisee, Ecole de Technologie Superieure, 1100, rue Notre-Dame Ouest, Montreal (Quebec) Canada H3C 1K3, cheriet@gpa.etsmtl.ca Tel: +1 514 3968972, Fax: +1 514 3968595, http://www.etsmtl.ca/VI98
21–22 June EEMCV	Evaluation Methods	St Barbara California	K Bowyer, Comp Science & Engin, Univ of South Florida, 4202 East Fowler Avenue, ENB 326,
22 25 1		G. D. I	Tampa, FL 33620-5399, USA. kwb@csee.usf.edu
23–25 June CVPR'98	Computer Vision	St Barbara California	Y F Wang, Dept of Comp Science, Univ of California, Santa Barbara, CA 93106, USA. cvpr98@cs.ucsb.edu Tel: +1 805 893 3866, Fax: +1 805 893 8553 http://www.cs.ucsb.edu/cvpr98
6–10 July IGARSS'98	Remote Sensing	Seattle USA	IEEE IGARSS'98, GRSS, 17906 St Emilion Court, Spring TX 77379, USA. http://www.igarss.org Fax: +1 281 291 9224, tstein@phoenix.net
12–16 July IMDSP	Multidimensional Signal Processing	Alpbach Austria	B Girod, Telecom Institute, Univ of Erlangen-Nuremberg, Cauerstrasse 7, 91058 Erlangen, Germany. girod@nt.e-technik.uni-erlangen.de Tel: +49 9131 857100, Fax: +49 9131 303840
11–13 Aug SPR'98	Statistical Pattern Recognition	Sydney Australia	http://www.nt.e-technik.uni-erlangen.de/imdsp A Amin (SPR'98), School of Comp Science and Eng, Univ of New South Wales, Sydney 2052, NSW, Australia Fax: +61 2 9 3855995, amin@cse.unsw.edu.au, http://www.cse.unsw.edu.au/amin/spr98.html
11–13 Aug SSPR'98	Stractural & Syntactic Pattern Recognition	Sydney Australia	A Amin (SSPR'98), School of Comp Science and Eng, Univ of New South Wales, Sydney 2052, NSW, Australia Fax: +61 2 9 3855995, amin@cse.unsw.edu.au,
17–20 Aug ICPR'98	Pattern Recognition	Brisbane Australia	http://www.cse.unsw.edu.au/amin/sspr98.html 14 ICPR'98, Conventions Queensland, PO Box 4044, St Lucia South, Queensland 4067, Australia, Tel: +61 7 3870 8831, Fax: +61 7 3371 9514, icpr14@convqld.org.au
8–11 Sept EUSIPCO- 98	Signal Processing	Rhodes Greece	EUSIPCO-98, Dept Informatics, Univ of Athens, Panepistimioupolis, TYPA, Athens 15784, Greece Tel: +30 1 7211119, Fax: +30 1 7219561, eusipco@di.uoa.gr, http://www.di.uoa.gr/ eusipco anonymous ftp.di.uoa.gr in /pub/eusipco
28–30 Sept SSIT'98	Intelligent Technologies	Minsk Belarus	V Krasnoproshin, Faculty of Applied Mathematics, Belarussian State University, 4, Fr Scorina Av, Minsk, 220050, Belarus. kras@fpm.bsu.unibel.by Tel: +375 17 2208821, Fax: +375 17 2265548
4–7 Oct ICIP'98	Image Processing	Chicago USA	Conference Management Services, Billene Mercer, 3109 Westchester Avenue, College Station, Texas 77845-7919, USA mercer@conf-mgmt.com, http://mri.beckman.uiuc.edu/ICIP98/Tel: +1 409 6936000, Fax: +1 409 6936600
8–9 Oct VLBV98	Image Coding	Urbana USA	Keven Haggerty, Beckman Institute, Univ of Illinois, 405 N Mathews Ave, Urbana, IL 61801, USA. haggerty@beckman.uiuc.edu jcj@uiuc.edu, http://www.ifp.uiuc.edu/vlbv/98 mercer@conf-mgmt.com

YEAR AT A GLANCE CONFERENCE PLANNER

Contact Addresses Pages: 10–11 Previous Reports are shown in Brackets (volume, number)

• = submission date □= final camera ready copy numbers = actual meeting dates

SPIE (v19n2) Pittsburgh CAMP'97 (v19n2) Boston ICIP'97 (v19n1) Santa Barbara BSDIA'97 (v19n2) Curitiba IAIF'97 Adelaide CVIV (v19n2) Boston ICA3PP-97 (v19n1) Melbourne ICCY'98 (v19n1) Bombay HICSS (v19n2) Hawaii IWSCIS Calcutta ICCIMA'98 Churchill IASTED Jordan SSIAI Arizona GKPO'98 Poland CGIM'98 Canada ISMM '98 Amsterdam IWSSIP'98 Croatia	1 14–17 20–22 bara 26–29	-17		-	Juni	Len	Maici	April	May	June	July	Aug	Sept	Oct	NOV
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