



Summer 1999
Volume 21 No 3

Newsletter of the International Association for Pattern Recognition Inc
(An affiliate member of the International Federation for Information Processing)

The Irish Pattern Recognition and Classification Society (IPRCS)

was set up at the beginning of this year, and has recently been welcomed into the IAPR fold, as a member organisation.

IPRCS will further professional activities related to pattern recognition in both the Republic of Ireland and Northern Ireland and keep in close contact with similar organisations based elsewhere in the world, especially through the medium of IAPR.



IPRCS will also strive to liaise closely with related organisations in Ireland, for example, the Irish Statistical Association, OESI - Optical Engineering Society of Ireland (the Irish chapter of SPIE), or the workshops and conferences related to artificial intelligence and cognitive science in Ireland.

IPRCS grew out of a series of conferences related to image processing, artificial intelligence, cognitive science, and pattern recognition. The first of these, *Machine Vision and Image Processing Colloquium*, took place at Queen's University of Belfast in March 1996, chaired by Ahmed Bouridane (Computer Science). In 1997, what had become IMVIP, the *Irish Machine Vision and Image Processing* conference, was held at the University of Ulster, organised by Jon Campbell (University of Ulster), Paul Mckeivitt (Aalborg University and Sheffield University) and Fionn Murtagh (formerly University of Ulster, now Computer Science, Queen's University). The all-star cast of invited speakers included John McCarthy, 'the father of AI', and Anil Jain. IMVIP in 1998 was hosted by the National University of Ireland, Maynooth and organised by David Vernon's team there. IMVIP in September 1999 will be organised at Dublin City University by Paul Whelan. IPRCS will take this opportunity to hold an AGM.

The address of IMVIP'99 is:

<http://www.eeng.dcu.ie/~imvip99/imvip99.html>

The Web address of IPRCS is:

<http://www.infm.ulst.ac.uk/~jgc/ipracs/>

IPRCS will work closely with organisations locally and further afield to further common interests. For instance, a series of breakfast meetings on medical imaging is taking place in central Belfast over the coming months, and the first such meeting at the end of April had an attendance of about 35. Out of organisational initiatives, further important consequences can come about. The Technical Committees of IAPR, for example, are an ideal basis for significant projects (such was the case a few years ago, for example, when IAPR Technical Committee 13 was the springboard for a European project). Contact any of us if you would like further information, or to join, or to plan some joint activity or initiative - *the Officers of IPRCS are:*

President: **Paul Whelan:** whelanp@eeng.dcu.ie; <http://www.eeng.dcu.ie/~whelanp/home.html>
Treasurer: **Jon Campbell:** jg.campbell@ulst.ac.uk; <http://www.infm.ulst.ac.uk/~jgc>
 (for, among other things, literally thousands of classified URLs under "my personal WWW links", many of them very relevant for pattern recognition)
Secretary: **Fionn Murtagh:** f.murtagh@qub.ac.uk; <http://www.cs.qub.ac.uk/~F.Murtagh>



IMVIP'97

A panel discussion features:
 (from left to right):

Paul Mckevitt (Aalborg)
Ronan Reilly (Dublin)
James Crowley (Grenoble)
Naoyuki Okada (Kyushu)
Anil Jain (Michigan).

Call for

2000 FELLOWSHIP NOMINATIONS

Closing Date for Nominations - 15 January 2000

THE IAPR FELLOWSHIP IS CONFERRED ON PERSONS in recognition of their outstanding contributions to IAPR and to the field of pattern recognition. The year 2000 awards will be presented at the 15th ICPR in Barcelona, 3-8 September 2000. The names of the recipients will be published in the *IAPR Newsletter* together with a citation of their contributions.

To initiate a nomination, a nominator must submit an IAPR Fellow nomination form to the Chairman of the IAPR Fellow Committee. Anyone can serve as nominator, including the nominee him/herself.

All IAPR members are eligible to be nominated except for the current members of the Executive Committee and Fellow Committee.

The nomination form and detailed information about the 2000 Fellow selection process are posted at the WWW address: <http://www.ee.surrey.ac.uk/CVSSP/iapr>

For those unable to access WWW these documents are available in a printed form from the Chairman of the IAPR Fellow Committee:

Professor Josef Kittler

Chairman, IAPR Fellow Committee

Centre for Vision, Speech and Signal Processing

University of Surrey

Guildford GU2 5XH

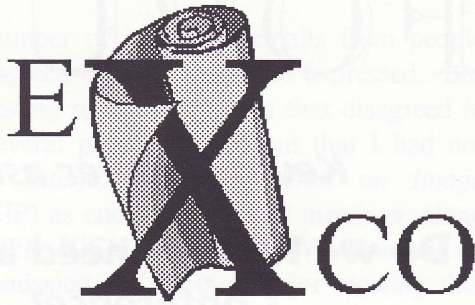
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From the



NEW MEMBERS

It is with much pleasure that in this *Newsletter* we can again announce a new member association for the IAPR. This time it is the Irish Pattern Recognition and Classification Society (IPRCS) who joined the IAPR after a ballot among the GB representatives with a deadline of April 19, 1999. Again, participation in the ballot was large and the vote was unanimously in favour. This society, representing the whole of Ireland, has approximately 45 individual members and is our 34th member. The GB representative of Ireland is Paul F. Whelan. The email address of the Irish Society can be found in the first article of this issue of the *Newsletter* and the complete details can also be found on the IAPR website: <http://peipa.essex.ac.uk/iapr/>

Two more new national members (Turkey and France) are in the pipeline. Since at the time of this writing the respective ballots are not yet closed, we will have to defer more information on these possible new memberships to the Autumn issue of the *Newsletter*.

TECHNICAL COMMITTEE 6

The ExCo has had difficulty in finding a chairman for TC6. This Technical Committee, formerly called *Special Architectures*, has experienced problems in keeping the interest of its members. We may refer to the Forum letter by the former chairman in the Spring issue of the *Newsletter*. At the ICPR in Brisbane, it was decided to explicitly widen the scope of TC6 by renaming it as *Special Hardware and Software Environments*. This change of scope did not result in a chairman being found. We then approached all GB members to ask for suggestions for possible candidates. This resulted in a few suggestions, which we are currently exploring. We do have some hope that we can thus bring TC6 back into operational status. More on this will be communicated in the Autumn *Newsletter*.

ON IAPR SPONSORED CONFERENCES

At the moment we are encouraging organisers of IAPR sponsored conferences to implement a differentiated fee structure. Individual members of IAPR national Societies should be entitled to a reduced fee for such conferences. While for the time being we can only encourage this, it is the intention to make this a condition for IAPR sponsorship in the future. This will certainly require a discussion in the Governing Board, which we will put on the agenda at the next Board meeting in Barcelona. Preparing for this means that the IAPR Secretariat should have a list of individual members of all IAPR societies. This is the background of our request to national societies in the Spring issue of the *Newsletter* to provide such a list. A formal request to all GB members will be issued shortly.

COMMUNICATION WITHIN IAPR

We are much pleased by the responses that the *Newsletter* articles provoke. It is indeed our intention to make the *Newsletter* the main instrument of communication between individual members. News from the various geographical areas is now communicated by our regional correspondents.

We want to emphasise once more that any member can also contact his/her representative on the Governing Board, or members of the ExCo directly about any issue that might raise questions or concerns.

Please let your opinions, favourable or unfavourable, be known. We are here to serve your interests.

Edzard S. Gelsema
Gabriella Sanniti di Baja

EDZARD GELSEMA *Good News*

It is with great pleasure that we are able to report that Edzard has completed a long course of chemotherapy and that it shows every sign of having been successful. He is now building up his strength again and will soon be working hard on his plans for IAPR as it approaches the end of the Millennium.

We send him all our best wishes for his continuing improvement.

Editor



FORUM

Kevin Bowyer asks:

Do we REALLY need another Conference?

I recently had the humbling experience of inadvertently touching off a nearly endless round of email amongst a large number of colleagues. If you were one of those who experienced this flood of email, then you may not have the strength or desire to read on. But if you did not experience it, or if you did and found it all a bit amusing, then you may like this story.

It all began when I received the following email and, perhaps in a lapse of good sense, decided to reply to it

Date: Tue, 9 Mar 1999 12:19:58 -0700 (MST)
From: Heng-Da Cheng <cheng@hengda.cs.usu.edu>
Reply-To: Heng-Da Cheng <cheng@hengda.cs.usu.edu>
Subject: CVPRIP2000
To: caip99list@orphan.fri.uni-lj.si,
computervision@umiacs.umd.edu, tc15@rfv.insa-lyon.fr,
jcis98@ee.duke.edu, tnt@nlpr.ia.ac.cn,
kepaf@tohotom.vein.hu, mitya@visual.ipan.sztaki.hu,
verestoy@sztaki.hu, csillag@miws.ipan.sztaki.hu,
sziranyi@lutra.sztaki.hu, freddy@cs.technion.ac.il,
tony@nada.kth.se, florack@cs.ruu.nl,
Touradj.Ebrahimi@epfl.ch, xdescorb@sophia.inria.fr,
krw@prip.tuwien.ac.at, gs@informatik.uni-kiel.de,
fm@informatik.uni-kiel.de, saupe@informatik.uni-leipzig.de,
hagit@macs.biu.ac.il, vche@smr.ru, alinus@rdsnet.ro,
karvel@research.nj.nec.com, kala@mrna.tn.ernet.in,
alain.roudou@univ-brest.fr, pyyin@mcu.edu.tw

CALL FOR PAPER - CVPRIP2000

International Conference on Computer Vision, Pattern Recognition & Image Processing In conjunction with Fifth Joint Conference On Information Sciences CVPRIP2000 is dedicated to the advances in algorithms, architectures and applications of CVPRIP.

Submission: Authors are invited to submit summaries of the original contribution to the algorithms, architectures and applications to CVPRIP.

Deadline: Sept. 1, 1999 for paper summaries

For details, please visit

(<http://www.cs.usu.edu/Conferences/CVPRIP2000>)

There are several things to note about this conference announcement. One is that the title acronym is "CVPRIP" and that this is rather close to that of "CVPR" and "PRIP" which are different meetings sponsored by different groups. A visit to the listed web page will tell you that the conference is to be held in Atlantic City, New Jersey in February. It will also tell you that a special issue of the journal *Information Sciences* is planned for the best papers from the conference. Lastly, note that the address list for the message contains several addresses which are themselves mailing lists (e.g., jcis98@ee.duke.edu).

I really did not mean to reply in a way that would be offensive to anyone. I did (still do) find the idea of a conference in Atlantic City in February rather humorous. And I honestly think that there are already too many conferences and journals. But I did not anticipate how many people would also have strong feelings about this, and I certainly did not anticipate the effects of a mailing list gone mad. My reply to the above conference announcement was the following:

I do not want to offend anyone, but I feel compelled to offer the following observations/opinions:

1. *The field does not really need another conference. CVPR/ICCV/ICPR/ECCV/ACCV/ are already enough.*
2. *Publishing a special issue of CVPRIP papers in Information Sciences will only make it harder for those in the field to keep track of things, as Information Sciences is not a typical home for computer vision papers.*
3. *Perhaps most important: Atlantic City in February??*

Almost immediately after sending the reply, I began to receive *undeliverable message* notes from mail systems around the world. I quit counting after I received my 200th such message! One of the list addresses in the original message obviously was badly kept up. The

thought of another 200+ email error messages was enough to keep me from sending anything else to the list.

I received a number of individual emails from people who basically agreed with the opinions I expressed. But the more interesting replies were ones that disagreed in some way. Several people pointed out that I had not mentioned the *International Conference on Image Processing (ICIP)* as one of the "good" meetings, along with CVPR, ICPR, ICCV, ECCV, ACCV. This was an unintentional omission - ICIP is a major meeting that many people, myself included, have papers in.

Sven Dickinson made the following point:

On the other hand, you can make the argument that as long as only 25% of the papers are getting published at our major confs (tougher acceptance rate than our best journals), perhaps there should be more forums devoted to new results. Problem is that nobody will read such proceedings.

I tend to agree that some of the meetings I mentioned often reject too high a percentage, effectively screening out papers if the work is "in progress" or if it is too novel relative to current trends to be quickly digested by the reviewers. But, more importantly, comparing acceptance rates between conferences and journals is like comparing apples and oranges. Conference reviewing is an order of magnitude less careful and accurate than journal reviewing. This is why many tenure and promotion committees basically ignore conference publications. As a community, I think we tend to believe too strongly in the power of low acceptance rates at conferences.

Then there were several emails that presented the view that the conferences I mentioned were run by an "in group" that operated to keep out an "out group". To be honest, and I apologise in advance if I am about to offend anyone, I found this to be the silliest strain of comments expressed. As a number of people noted, the reality of things does not support an "in group" conspiracy theory. CVPR is sponsored by the Computer Society, and has perhaps 10+ area chairs and 70+ reviewers; ICPR is sponsored by the IAPR, has four separately-chaired tracks and a similar large number of reviewers; ICIP is sponsored by the Signal Processing Society, with a similar large number of people involved; ECCV is another organisation. Then there is ICCV, ACCV and so on. Many of the people who tended to advance an "in group" conspiracy theory had stories of how their submissions were unfairly rejected by one or more of these conferences. But everyone who has been in the field any length of time could probably tell stories

about the unfair rejections of their papers. I know I have had submissions rejected by CVPR, ICCV and ICIP for reasons that I did not understand and sometimes with "reviews" that did not really deserve the name. But I do not take this as evidence of a conspiracy - except for that one time that the reviews were delivered by men dressed in black and flying a silent helicopter.

I thought **David Forsyth** had a very rational view:

There are two issues here: 1) are there conspiracies aimed at excluding unpopular authors or unfashionable work? 2) should there be more conferences?

The answer to (1) is almost certainly no. Reviewers regularly do silly things, or annoying things, etc., and are no doubt moved by fashion, but to read this as evidence of an 'in-crowd' is somewhat of a stretch. I do think that improving the standards of reviewing might be something to consider. There seems to be a little too much reviewing by students for my taste, and a tendency towards remarks that are intended to be encouraging but in the cold light of day seem patronising. For myself, I'd like to see much more time dedicated to poster sessions - where I can almost always find something to my taste, and can ignore things that I don't like - than to talks, which almost always bore me. In conferences that have large poster sessions, the reviewers are more able to take risks, because the audience can vote with its feet and accepting a poor paper denies few resources to the authors of good papers. As for (2), it's hard to see any sense in trying to limit the number of conferences - free association is an admirable thing. The great advantage of having many conferences is a richness of venues - people who want to go to aggressively refereed meetings may do so, and those who would rather go to focused meetings, or meetings where the refereeing is light in the hope that exciting novelties will appear may do so, too. I don't see any down side to the field; organisers must take the risk that they may hold a conference to which no-one will come, but I don't see that as a problem either. In my opinion, the argument that it will be hard for promotion committees to figure out which conference publications "count" is a feature, rather than a bug; promotion committees should think about what they do, rather than just count papers. Another feature of having many conferences is that it will make the development of the field hard to control or to organize; a good thing, because control is anathema to a rich intellectual life.

Terry Boulton presented another plausible view:

... with the type of reviewing and the way the program committees make decisions for CVPR and ICCV it is

hard to see how there could be any conspiracy. There is, by nature of the 40-100 reviewers used, a bias for some types of work, but that is the nature of a conference, and one of the reasons for the specialised workshops that often occur with CVPR. The statements made that there is a clique are somewhat true, but when the clique contains 100 referees and some 250+ different authors it is often just called a field (or at least a faction in the field). With respect to yet another conference, it does not matter to me. There are plenty of "open" (i.e. weakly refereed) conferences (like SPIE, IASTED, CISST) where abstracts are all that are submitted and a very small clique (1-8 people usually) decides what is to appear. I have even served on the committees of such conferences when their focus was of interest to me. If a group wants to hold this type of meeting, and they can find the sponsors, that is their choice. If they can find a journal that wants to publish selected papers from the meeting, more power to them. This year has approximately 35 "vision and image processing" related conferences, what is the problem with one more?. If people are willing to pay the registration fees (they are due with the camera ready copy) to attend and have their paper in the proceedings the conference will become self sustaining.

Having been to ARVO before, I found myself liking **Alan Yuille's** comment:

In my opinion, one of the problems of computer vision is that people don't spend enough time understanding each others' work (this, of course, lowers the reviewing standards). Having more conferences risks fragmenting the field even further. But, reading some of the email messages, maybe there is a demand for a big conference where the admission standards are tolerant and where most work is presented by posters. I am thinking of conferences like ARVO for biological vision where people turn up to browse the posters, chat to each other, and enjoy the beaches (ARVO is held near Florida beaches in May -- not Atlantic City in winter!). Publications in such a conference don't carry as much credit as publications in reviewed conferences.

Ruth Rosenholtz highlighted a very real problem:

My experience with other conferences suggests that sometimes the problem is that each reviewer is reviewing too many papers. Even with the best of intentions, such a reviewer will tend to be biased towards work that's like what they've seen before. Those papers are just easier to review!

Many other people also made (in my opinion) intelligent, constructive comments, too many, in fact, for me to

mention them all here. There were also some exchanges that were of value for their humor.

From mister-stupid-head@cs.usask.ca:

For daring to complain about all this mail that I have never asked for, I am now being sent a gazoolian "Undeliverable Mail" messages! Mercy! Please! Send me your junk mail! I want to hear your internal debates, along with all the get-rich-quick emails, along with all the pointers to suggestive-web-sites, along with all the baldness remedies, along with you-name-it! I am sorry I ever complained! Now I couldn't fit 80 ASCII bytes in my inbox!

Another favourite was the message:

Why you send me your request to get off the mailing list.. first get me off the bloody list.. which bloody lists am I on anyway and why?? that's I want to know.. and as for the rest of you, no wonder vision research is going down the tubes.. haven't you guys got any research to get on with? Please take me off all your lists unless it's an invite to a party.

which was followed by the message:

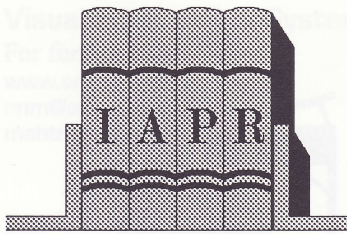
Hey John, I doubt it is wise to get off in public. Seriously, PLEASE continue the very interesting discussion about conferences, we need to do some self-investigation. But, can you internet-newbies PLEASE stop asking ON the lists, to be removed FROM the lists, unless you have some cool way to ask?

But, alas, people did continue to ask, ON the list, to be removed FROM the list. In fact, this type of message came to dominate the traffic. Some irate people eventually contacted the technical support person in the EE Department at Duke University and got the jcis98@ee.duke.edu list terminated until it could be more intelligently installed.

What did I learn from this experience? Probably not as much as I should. But here are a couple of things:

1. Some people in the field have a good sense of humour.
2. Some of my colleagues have good ideas for how to have better reviewing and more interesting conferences.
3. There certainly are too many conferences already.
4. I probably should not care about this. Bad conferences may sustain themselves with minimal attendance and "registration fee due with camera-ready copy" policies, but there may not be much harm done to the community at large.

Whatever you think of this column, don't post your opinion to any email list. Instead, send your comments to Michael Duff for this column of the IAPR newsletter.



BOOK REVIEW

Perceiving Talking Face - From Speech Perception to a Behavioral Principle

Domino W Massaro

MIT Press, Cambridge, Massachusetts ISBN 0-262-13337-7

PERCEIVING TALKING FACE IS A BOOK PRESENTING results of an extensive body of research in bimodal speech perception. In the first part of the book (chapters 1 to 4) the author introduces the speech reading problem and explains his methodology. The most important decisions about the design of the presented experiments are discussed. Persuasive arguments in favour of the use of a synthetic 'talking head' are put forward. The final chapter of Part 1 introduces and compares a number of models of multimodal perception.

Parts 2 and 3 (chapters 5-11) of the book are full of experimental results. In Part 2, the influence of individual variability, ecological variability and emotions on visual and acoustic perception of speech is studied. Part 3 deals with the dynamic aspect of speech perception.

The fourth and final part of the book is called *Creating Talking Faces*. I found its four chapters, co-authored by M. M. Cohen and M. A. Berger, most interesting. The authors describe the development, evolution, testing and applications of what appears to be a state of the art talking head. The range of issues that a developer of a face animation system must address is quite extraordinary and the reader gets a review of all of them. So I learned about face animation software used in computer graphics and the film industry (e.g. for the *Toy Story*), about 'face communication', face modelling and compression, MPEG4 and GUIs (how can face expressions be controlled?). And have you ever thought about the number of degrees of freedom of the tongue? In chapter 13 (*Evaluating Talking Faces*) we see a gradual evolution of the talking head model. Driven by comparisons with natural speakers, the head model is gradually refined to a level where synthetic and natural speech reading achieves nearly identical error rates. Such good performance creates opportunities for many applications (chapter 14).

Besides good research, a reader of *Perceiving Talking Face* will find many interesting remarks, observation, quotes and pointers to face and speech related work.

Unfortunately, very few readers will have the time to read the thick volume (3.8 cm) cover to cover; and, despite an index, it is not easy to find a particular piece of information in the 'ocean of facts' (I vaguely remember that the book says somewhere the tongue has 60 DOF, but I was not able to find the page again and confirm this). But in general I have little doubt that people working on speech reading, speech recognition, face recognition and perhaps video conferencing will find the book useful.

Beware! The book is written by psychologists and the terminology is sometimes rather different from common usage in the Pattern Recognition community. Even basic terms like information and pattern recognition have a slightly different meaning. *Perceiving Talking Face* is the first scientific book I have read accompanied with a CD-ROM allowing the reader to perform some experiments literally with his own eyes and ears. For those that do not have a multimedia computer at home this requires some careful planning. On a number of occasions I had a dilemma after reading that "You should play the demonstration before reading any further to avoid biasing your response".

I will conclude in a light-hearted manner with one quotation and one excerpt from the book, which seem very appropriate for the *IAPR Newsletter*. The first seems to suggest we are in the wrong business:

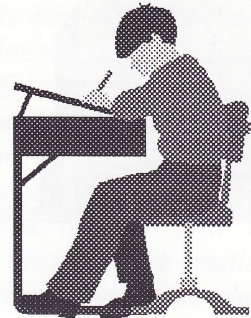
If your experiment needs statistics, you ought to have done a better experiment. (Lord Rutherford, 1937)

and worse, we might be all working on a solved problem (p. 100):

A recent seminal contribution to psychological inquiry provides a helpful foundation for the development of our universal law of pattern recognition. It is the universal law of generalization proposed by Roger Sheppard

Dr. Jiri (George) Matas
Czech Technical University

FROM OUR OWN CORRESPONDENTS



From the Indian Sub Continent

Babu Mehtre writes about his own
Visual Information Systems Group

CMC Limited, a Government of India Enterprise, is one of the largest information technology companies in India. With 18 offices in India, a wholly owned subsidiary company in USA, marketing presence in several countries abroad, CMC caters to the IT requirements of customers from a wide variety of fields, spread over a vast geographic area and provides a cutting edge to its customers in India and abroad.

CMC Centre is the largest single location of CMC Limited. Its beautiful campus is located on the outskirts of Hyderabad city. The Centre is built on a sprawling campus spread over 75 acres. It has a high-speed link to Internet, a private software technology park and a library of computer related books, journals, magazines and other periodicals. The Centre's infrastructure as at this date supports over 600 technical staff. CMC Centre houses various specialized groups like Ports and Cargo, Banking Systems, Offshore Development, Education and Training and R&D centre.

CMC's R&D centre has several specialized groups including Pervasive Computing and Multimedia, Infotech Solutions for Public Services, Communications and Networking Technologies, Power Systems, Real Time Systems (embedded software), Internet Commerce, Quality Assurance and Visual Information Systems.

The Visual Information Systems Group is one of the oldest of R&D groups. It was formerly called the Image Processing Group and was started in 1982 as part of the UNDP funded INTERACT Project. The InterNational Education and Research for Application of Computer Technology (INTERACT) project had three core areas: power, transportation and meteorology. The Image Processing Group's mandate was to work on satellite data processing for meteorological applications.

After the successful closure of the INTERACT project in 1985, the focus of the group was broadened to include general image processing and pattern recognition applications. In the last 15 years the group has taken up projects in several applications of Imaging. These include

fingerprint image analysis, image storage and retrieval, geographic information systems (both vector and raster versions), digital terrain modeling, and map data processing. Fingerprint Analysis and Criminal Tracing System (FACTS), developed by this group has become one of the flagship applications of CMC. FACTS is being increasingly deployed in many states in India and abroad for police applications. R&D efforts are on to continue improvements in the FACTS system. Presently the fourth generation of FACTS is under development.

The group has computing resources consisting of many workstations from HP, SUN, and Compaq and several PCs, supported with specialized peripherals like scanners and other imaging equipment. Presently the group size is about 20, with Bachelor's, Master's, and Doctoral qualifications. The specialty areas include image processing, pattern recognition, multimedia systems and applications. The group has published more than 40 papers in various national and international journals and conferences, including invited contributions in encyclopedias. Some of these papers have received best paper awards from publishers and the Government of India. Group members have guided a number of Master's students projects and regularly review papers for various journals and conferences including IEEE Transactions on Pattern Analysis and Machine Intelligence, Pattern Recognition, Pattern Recognition Letters and IEEE Computer. Group members have visited PRIP Lab, Computer Science Department, Michigan State University, East Lansing, USA as Visiting Scholars. The key strengths of our group are:

Technologies

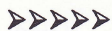
- Systems development based on Image Analysis and Pattern Recognition Techniques
- Algorithms development in Image Processing and Pattern Recognition
- Electronic Copyright Management Systems

System Integration

- System integration involving specialized peripherals scanners/camera's, optical juke boxes, array processors and distributed systems
- Development of software systems using object oriented methodology
- Design, development and commissioning of large imaging application systems (like FACTS)

Visual Information Systems Group

For further details:
www.cmcltd.com
nnm@cmcltd.com
mehtre@cmcltd.com



ICDAR'99

The Fifth International Conference
on Document Analysis & Recognition
(ICDAR'99), Ashok Hotel
Bangalore, India,
October 4-6, 1999.
For further details:
www.cedar.buffalo.edu/icdar99



IAPR SPONSORED MEETING REPORTS

IAPR-TC15 : Graph based Representations GbR'99 Austria 10-12 May 999 (<http://www.prip.tuwien.ac.at/News/GbR99/>)

The 2nd IAPR TC15 Workshop on Graph-based Representations took place at the Castle of Haindorf, Austria, May 10-12, 1999. There were about 30 participants coming from 12 different countries. Due to the wonderful organisation of the PRIP lab, we had lively discussions and new contacts were established demonstrating that our community has been very active during the past two years (since our last workshop in Lyon) and will continue to be documented at our next workshop in Italy.

The workshop was divided into 5 sessions: *Representation, Applications in Image Analysis, Matching, Clustering, Segmentation*, and two panels: *Future Activities of TC15, Benchmarking*. 25 presentations were given. We wish to highlight the high diversity of the workshop material through different points of view.

Both theoretical and application driven issues were presented: About half the presented papers were concerned with real applications (typically: Online Character Recognition, Aerial Scene Interpretation, Data Analysis), whereas half the papers dealt with theoretical issues concerning graphs. This particular point shows that the community is making great effort in both the development of theoretic tools and applying the frameworks on real cases.

Many types of graphs have been used and were described in this workshop: General graphs, of course, were considered in theoretical problems. In most application-driven cases, graphs are used to represent relational and structural knowledge about image-extracted features or external models (Attributed Relational Graphs or ARGs, Fuzzy ARGs, Function-Described Graphs (FDG)). An important category in image processing is Region Adjacency Graphs or RAGs and Pyramids of RAGs used for Segmentation, generally in 2D but also 3D. We also notice two particular

types of graphs: Run Graphs to encode and vectorize bitmaps and Petri Nets used to handle system flows.

Our next workshop will take place in Italy. Information about the organisation of this workshop and the role of TC15, together with a discussion on the topic of Graph Based Representations, will be published in the next issue of the IAPR Newsletter.

*Jean-Michel Jolion, TC15 Chairman
INSA, France*

The Vth International Conference on Pattern Recognition and Information Processing (PRIP'99) May 18-20, 1999 , Minsk, Belarus.

For the fifth 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. Nevertheless, the majority of the papers (70%) were presented in English. More than 150 papers were submitted to PRIP'99 from 23 countries. After the thorough reviewing process that was made by Program Committee members and attracted qualified reviewers, about 110 papers were included in the conference program. More than 100 scientists from Belarus, France, Japan, Finland, Belgium, Germany, Netherlands, Czech Republic, Poland, Turkey, Lithuania, Russia and Ukraine, took part in the conference.

The conference was organised in 8 sessions and the main topics were: *Pattern Recognition, Image Analysis, Image Processing, Signal Processing, Systems & Parallel Architectures for Signal & Image Processing, Knowledge-Based Expert & Decision Support Systems, Logical Recognition & Logic Design and 3D Image Processing & Modelling*. The program also included four plenary representations by A.Gagalowicz (France) devoted to *3D tracking using Analysis/Synthesis methods*, by H.Heijmans

(Netherlands) dedicated to the problem of *multiresolution morphology*, by Sankur B. (Turkey) devoted to *image segmentation* and by Starovoitov V. (Belarus) dedicated to *comparison of digital images*. The proceedings of the conference are published in two volumes: the first volume (295 pages) includes only papers in English and the second (408 pages) includes papers in both English and Russian.

The social program was also rich. Participants attended the opera *Rigoletto* in the Belarusian National Opera and Ballet Theatre. A delicious banquet with national dishes and drinks was also organised. There are many research groups working in image analysis in Belarus. The conference participants had an interesting tour in the Institute of Engineering Cybernetics where they visited several image processing laboratories.

Proceedings are available from the organisers. For details: **S.Ablameyko** [abl@newman.basnet.minsk.by] or **R.Sadykhov** [sadyhov@newman.basnet.minsk.by]

The International Conference *Pattern Recognition and Information Processing* will be again in Minsk in May 2001. From my point of view, this event will be of great scientific interest becoming one of the great occasions to exchange information between scientists from the whole world.

*R Sadykhov, Belarus
Belarusian State University*

VISION INTERFACE '99
May 18-21, 1999 - Trois-Rivieres
Quebec, Canada

The twelfth edition of the conference *Vision Interface* (VI) took place in Trois-Rivières, Quebec, Canada, from May 18 to May 21, 1999. It was held in conjunction with the fifth international conference on *Quality Control by Artificial Vision* (QCAV).

VI/QCAV'99 was a big success. There were over 220 participants from 23 countries and over 150 oral or poster presentations. The industrial participation was particularly important this year and two special workshops were held during the conference. The first one had the theme: *Industry Researchers Link Up*, and was sponsored by CIPPRS (Canadian Image Processing and Pattern Recognition Society) and the National Research Council of Canada. The second one is related to the international project HUTOP (*Human Sensory Factors for Total Production Life Cycle*). In addition, a special non-reviewed poster session was organised for graduate students (the best student posters were awarded).

The success of VI/QCAV is due to the support of IAPR and other sponsors and the organising committee would like to thank them very sincerely.

*Professor Fathallah Nouboud
Université du Quebec a Trois-Rivières*



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*Always remember to check members' details on the IAPR
Web Site which is updated regularly.*

15 ICPR

15th INTERNATIONAL CONFERENCE ON PATTERN RECOGNITION

3-8 September 2000 Barcelona, Spain,

CALL FOR PAPERS

(<http://www.cvc.uab.es/icpr2000>)

Chairmen:

General Co-Chairs:

Alberto Sanfeliu, Juan Jose Villanueva

Local Organisation Co-Chairs:

Maria Vanrell, Rene Alquezar

Tutorial Chair: Joan Climent

Workshops Chair: Maria Ines Torres

Conference Track Chairs:

Computer Vision and Image Analysis:

Yiannis Aloimonos, Jan-Olof Eklundh

Pattern Recognition and Neural Networks:

Anil K. Jain, Josef Kittler

Image, Speech and Signal Processing:

Tom Huang, Jean Serra

Applications, Robotics, Systems and Architectures:

James Crowley, Yoshiaki Shirai

Tracks include the following topics:

Computer Vision and Image Analysis: Early Vision, Representation, Segmentation, Recognition (2D and 3D), Active Vision, Scene Understanding, Visual Navigation, Shape from X, Motion Analysis, Texture and Colour, Feature extraction.

Pattern Recognition and Neural Networks: Statistical Pattern Recognition, Structural and Syntactic Pattern Recognition, AI-based Pattern Recognition Techniques, Multiresolution Classification, Neural Networks for Classification and Regression, Self-Organising Networks, Associative Memories, Learning, Feature Selection, Dimensionality Reduction, Invariance in Recognition

Image, Speech and Signal Processing:

Filtering, Enhancement and Restoration, Image Registration, Signal Coding and Compression, Signal Segmentation, Speech Processing, Speech Understanding, Image and Data Representations, Mathematical Morphology, Wavelets, Visualisation

Applications, Robotics, Systems and Architectures:

Automation and Robotics, Visual Inspection, Surveillance, OCR and Document Analysis, Biomedical Imaging, Range Imaging, Smart Sensors, Mobile Robots, Real Time Systems, Image Database Systems, Remote Sensing Applications, VLSI Architectures, Multiprocessor Systems, Parallel Algorithms and Languages, Multimedia.

Important Dates:

Paper submission deadline:	November 15	1999
Acceptance notification:	February 1	2000
Camera-ready copy submission:	April 1	2000
Lower registration fee deadline:	May 1	2000

Paper submission:

Authors are requested to submit their papers before November 15th, 1999. Papers should be written in English, with a maximum extension of 4 pages per paper and omitting authors' name and affiliation. In addition, a separate page must include title of paper, the names, affiliations and e-mail addresses of authors as well as postal address of the contact author, together with the paper abstract, a list of keywords and the preferred conference track and type of presentation (oral or poster).

Papers should be submitted electronically using one of the required file formats that will be available shortly at the Conference web site: <http://www.cvc.uab.es/ICPR2000> Alternatively, authors may send five copies of the paper on DIN A4 to the Conference Secretariat address.

Review process:

Papers will be subject to blind review. Selection criteria include accuracy and originality of ideas, clarity and significance of results and quality of the presentation. Accepted papers will be scheduled for oral or poster presentation and will be printed in the Proceedings. Authors of accepted papers, or at least one of them, should be registered and are expected to present their works (oral or poster presentations) in the conference.

Call for Contest Participation:

ICPR2000 offers the possibility to participate in several competitions of algorithms and techniques. More information will be available in the Contest section of the web site (<http://www.cvc.uab.es/icpr2000>). Results of each contest will be published as a paper in the proceedings.

Tutorial Proposals:

ICPR2000 invites proposals for the Tutorial Program. Tutorials will be held on September 3rd, 2000 immediately before the start of the main conference. Tutorials will be offered both on standard topics and on new and more advanced topics. Those interested in presenting a tutorial should submit a proposal to the ICPR2000 Tutorial Chair, Prof. Joan Climent (climent@esaii.upc.es) before February 1st, 2000. A tutorial proposal should contain the following information:

A brief description of the tutorial. It must be suitable for inclusion in the conference registration brochure.

A detailed outline of the tutorial: Necessary background and potential target audience for the tutorial.

A brief resume of the presenter(s), which should include name, postal address, phone and fax numbers, e-mail address if available, background in the tutorial area and any available example of work in the area (ideally, a published tutorial-level article on the subject).

Those submitting a proposal should keep in mind that tutorials are intended to provide an overview of the field; they should present reasonably well established information in a balanced way.

Workshops:

The Joint Workshop S+SSPR2000, that will join together the two IAPR International Workshops on Statistical Pattern Recognition and Structural-Syntactic Pattern Recognition, respectively, will be held in Alicante (Spain) from August 30 to September 1. In addition, ICPR2000 will promote some workshops on specific topics in the previous or later days of the conference. Those interested in organising a workshop near Barcelona should contact Prof. Maria Ines Torres (mmanes@we.lc.ehu.es), who will coordinate and support these events.

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FORTHCOMING IAPR CONFERENCES AND WORKSHOPS EVENTS

Check updated information on: <http://peipa.essex.ac.uk/iapr/>

1999	Event	Location	Deadlines	Contact
6-9 Aug SMIP'99	Statistical Methods for Image Processing	Uppsala Sweden	Abstract Final Manuscript 31/03/1999 30/06/1999	deltrich@math.uu.se http://www.math.uu.se/~tomb/statf.html
30-31 Aug WBIR'99	International Workshop on Biomedical Image Registration	Bled Slovenia	Abstract Final Manuscript 01/02/1999 01/05/1999	Fax: +386 61 1264 630 fer@fe.uni-lj.si http://bjprog.fe.uni-lj.si/wbir00
1-3 Sept CAIP'99	8th International Conference on Computer Analysis of Images and Patterns	Ljubljana Slovenia	Abstract Final Manuscript 15/01/1999 01/04/1999	Fax: +386 61 1768 647 franc@fri.uni-lj.si http://razor.fri.uni-lj.si/CAIP99
6-8 Sept FSPIPA'99	Fundamental Structural Properties in Image & Pattern Analysis	Budapest Hungary	Abstract: 15/04/1999	Fax: +36 1 466 7503 szirany@uttra.sztaki.hu http://visual.ipan.sztaki.hu/FSPIPA99/
13-16 Sept BMVC'99	The 10th British Machine Vision Conference	Nottingham UK	Abstract Final Manuscript 23/04/1999 09/07/1999	tony.pridmore@nottingham.ac.uk http://www.not.ac.uk/meom/bmvc99.html
16-18 Sept MLDM'99	IAPR International Workshop on Machine Learning and Data Mining in Pattern Recognition	Leipzig Germany	Abstract Final Manuscript 15/05/1999 01/08/1999	Fax: +49 341 8665 636 ibainldm@aol.com http://members.aol.com/ibai/mldm.htm
19 Sept MLOC'R'99	International Workshop on Performance Evaluation Issues in Multilingual OCR	Bangalore India	Abstract Final Manuscript 30/03/1999 30/04/1999	Fax: +1 301 314 9115 mlocr@cfr.umd.edu www.cfr.umd.edu/~kanungo/workshop/mlocr.html
20-22 Sept ICDAR'99	5th International Conference on Document Analysis	Bangalore India	Abstract Final Manuscript 29/01/1999 31/05/1999	Fax: +1 650 854 8740 hull@crc.ricoh.com http://www.cedar.buffalo.edu/icdar99
26-27 Sept GREC'99	Third IAPR International Workshop on Graphics Recognition	Jajpur India	Abstract Final Manuscript 29/03/1999 15/06/1999	Fax: +1 914 644 2561 abul@basit.com http://graphics.basit.com/iapr-tc10/grec99/
27-29 Sept ICIA'99	10th International Conference on Image Analysis and Processing	Venice Italy	Abstract Final Manuscript 28/02/1999 01/06/1999	Fax: +39 432 558499 iciap99@dirni.uniud.it http://www.dirni.uniud.it/~iciap99
4-8 Oct 3DIM'99	Second International Conference on 3-D Digital Imaging and Modeling	Ottawa Canada	Abstract Final Manuscript 05/03/1999 11/06/1999	Fax: +1 613 952 0215 pierre.boulangier@ilic.nrc.ca , http://www.vitc.ilic.nrc.ca/3DIM99
28-31 Dec ICAPRDT'99	4th International Conference on Advances in Pattern Recognition and Digital Techniques	Calcutta India	Abstract Final Manuscript 15/07/1999 15/10/1999	Fax: +91 33 577 6680 icaprtdt99@isical.ac.in http://www.isical.ac.in/~icaprtdt99
2000				
3-8 Sept 15-ICPR	15th International Conference on Pattern Recognition	Barcelona Spain	Abstract: Final Manuscript: 15/11/1999 01/05/2000	Fax: +34 93 325 27 08 otac@infase.es http://www.cvc.uab.es/~ICPR2000