

IAPR



Newsletter

Volume 28 Number 1
January 2006

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Nominations are being accepted for the first J.K. Aggarwal Prize that will be awarded at ICPR 2006. The deadline is February 1, 2006.

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This bulletin board has positions and a publication that will be of interest to IAPR members.

Calls for Papers

ICPR 2006

18th International Conference on Pattern Recognition
Hong Kong
Extended Deadline: January 16, 2006
August 20-24, 2006

S+SSPR 2006

11th International Workshop on Structural and Syntactic Pattern Recognition (SSPR 2006)
6th International Workshop on Statistical Techniques in Pattern Recognition (SPR 2006)
Hong Kong
Deadline: January 31, 2006
August 17-19, 2006

IWFHR 2006

10th International Workshop on Frontiers in Handwriting Recognition
La Baule, France
deadline: February 15, 2006
October 23-26, 2006

VP4S-06

1st International Workshop on Video Processing for Security
Québec City, Canada
Deadline: January 29, 2006
June 7-9, 2006

CRV 2006

3rd Canadian Conference on Computer and Robot Vision
Québec City, Canada
Deadline: February 10, 2006
June 7-9, 2006

AMDO-e 2006

4th Conference on Articulated Motion and Deformable Objects
Puerto de Andratx, Mallorca, Spain
Deadline: February 15, 2006
July 11-14, 2006

I.W.MCRSCS 2006

International Workshop on Multimedia Content Representation, Classification, and Security
Istanbul, Turkey
Deadline: March 10, 2006
September 11-13, 2006

ANNPR 2006

2nd IAPR TC-3 Conference on Artificial Neural Networks in Pattern Recognition
Ulm, Castle Reisingen, Günzburg, Germany
Deadline: March 1, 2006
August 31-September 2, 2006

EVA-Vienna 2006

Digital Cultural Heritage—Essential for Tourism Vienna, Austria
Deadline: March 31, 2006
August 27-30, 2006

CIARP 2006

11th Iberoamerican Congress on Pattern Recognition
Cancun, México
Deadline: May 19, 2006
November 14-17, 2006

ICDAR 2007

9th International Conference on Document Analysis and Recognition
Curitiba, Parana, Barzil
Deadline: January 15, 2007
September 23-26, 2007

MVA 2007

10th IAPR International Conference on Machine Vision Applications
Tokyo, Japan
Deadline: ?
May 16-18, 2007

Calls for Nominees

King-Sun Fu Prize 2006

To be presented at the
18th International Conference on
Pattern Recognition (ICPR 06)
Hong Kong
Deadline: January 15, 2006
August 20-24, 2006

J.K. Aggarwal Prize 2006

To be presented at the
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Deadline: February 1, 2006
August 20-24, 2006

In Memory of Professor Adnan Amin

Prof. Adnan Amin, a well respected and distinguished member of the IAPR community, died Friday, October 28, 2005 in Sydney, Australia, at the age of 54.

Adnan Amin presented his Doctorate D'Etat (D. Sc.) in Computer Science at the University of Nancy, France, in 1985. Dr. Amin was with the University of Nancy II from 1981 to 1985, first as Assistant Associé (Associated Lecturer), from 1981 to 1982, and then Maitre Assistant Associé (Associated Professor). Between 1985 and 1987 he worked at INTEGRO (Paris) as head of the Pattern Recognition Department. From 1987 to 1990, he was an Assistant Professor at Kuwait University and joined the School of Computer Science and Engineering at the University of New South Wales, Australia, in 1991 as a Senior Lecturer.

Prof. Adnan Amin was an active researcher in the fields of pattern recognition, document image analysis and recognition, neural networks, and machine learning, having authored more than 100 technical papers in these areas. Among his many research activities, he was a pioneer of the Arabic character recognition systems. As a distinguished and committed member of the IAPR community, Prof. Adnan Amin served as Chair of the IAPR Technical Committees TC2 (Syntactic and Structural Pattern Recognition) and TC11 (Reading Systems). His many contributions to the Pattern Recognition scientific community included the organization of several conferences and workshops, editorial activity in several international journals, involvement in international conferences and workshops as member of program committees, in addition to authoring of scientific publications.

In honor of his memory, I would like to share with you some thoughts written by some of his closest friends. I am sure we will remember Prof. Adnan Amin as a great researcher and as a good friend.

Ana Fred, Chair of TC1

I had the chance to meet Adnan a few times. He was not only an excellent researcher, his speciality was arabic character recognition, and teacher but also an excellent organizer. I still remember the S+SSPR workshop

he organized 1998 in Sydney before the ICPR in Brisbane. He also put a lot of effort in organizing an excellent social program to provide additional opportunities for informal discussions in addition to the cultural event.

The IAPR lost an excellent scientist and a good friend much too early.

Walter G. Kropatsch, President of IAPR

The passing of Adnan is a great loss to the Australian Pattern Recognition Community. Adnan had a strong presence in document analysis and pattern recognition and had earned the respect of his peers. He served on the board of 5 top journals and on the program committees of numerous international conferences.

My most vivid memory of Adnan is dining with him at the ICPR2000 banquet in the historic Drassanes dining hall in Barcelona. I had not met him before but he invited me to his table and we enjoyed fine conversation throughout the evening. At the end of the banquet, he passed around cigars and the air turned blue. Now I will always remember him in that that haze of smoke. He was a scholar and a friend.

Professor Brian C. Lovell

I never forget the enthusiasm Adnan had when we visited The Alhambra, in Grenada, together after ICPR 2000. For Adnan, this was a symbol of his life, I guess - the meeting of Europe and the Middle Eastern cultures. His science also reflected this - the study of systems to recognize and interpret Arabic text and related issue. Adnan was a generous man, a scholar, and he did work hard to make the S+SSPR Workshop what it is today. We remember him for all these things.

Prof. Terry Caelli

Adnan Amin was for a long time our colleague in LORIA lab and a good friend in life. One of us (Abdel) started with Adnan the research on handwriting recognition using structural approaches for Arabic and Latin writing, whereas the second (Jean-Paul) was the supervisor of the Doctorat d'Etat Thesis that he presented on this topic in December 1985. After his departure of Nancy, initially to Kuwait, then to Australia (forced by what happened in Middle East), we had never ceased seeing each other and corresponding. His friendliness, generosity and good-nature are legendary. Like each one among us, we have an unforgettable memory of the various meetings with him.

Adnan was a pioneer on Arabic recognition, he developed IRAC, the first system for off-line Arabic recognition. By this élan, he gave to many researchers the desire to deepen this research area. That explains the numerous citations to his work.

Adieu Adnan! Repose en paix.

Abdel Belaïd and Jean-Paul Haton

Feature Article



Pattern Recognition in Two National Labs

By [Larry O'Gorman](#)

I recently attended a research review at France's INRIA. For the past 7 years, I have attended reviews for another government-sponsored lab in the US, NIST. Although these labs are different in their charter and organization, both sponsor work in the area of pattern recognition (among many other topics), so I thought the pattern recognition community would be interested to learn the processes and procedures by which science and technology are fostered at these two organizations.

First, I should note that all of the material in this article is publicly available—no confidential material from reviews is discussed here. These labs, being publicly funded, make efforts to publicize their efforts. Second, this is not a comparative article since these two labs have different objectives.

Pattern Recognition at INRIA

INRIA, the French Institut National du Recherche en Informatique et Automatique (National Institute for Research in Computer Science and Control), was founded in 1967. The Institute is under the dual authority of the Ministries of Research and Industry. In numbers, there are 6 research units that are geographically dispersed across France, a staff of 3500 including 2700 scientists, and 124 project-teams. The INRIA budget in 2004 was 123 million Euros. More than half the projects involve collaborations with CNRS (Centre Nationale de la Recherche Scientifique), universities, and industrial partners.

As part of its research objective, INRIA actively fosters international collaborations. For instance, there are 9 associate teams, mainly now in the US, however increasingly in Asian countries as well. Training and education are also high priorities with 950 doctoral

candidates, 150 post-docs, and 300 trainees, all involved on INRIA projects. In addition to research, technology transfer is also a stated strategic objective.

It is interesting to note that, in the organizational hierarchy between INRIA administration and the research projects, there are no other levels; there are no divisions, labs, or departments. Instead, there are just the 124 project-teams that are each centered at one of the 6 INRIA locations, although collaboration may extend beyond the location and indeed internationally. Teams consist of about 15-25 members. These members may be full-time INRIA employees, but also may be professors, post-docs, graduate students, visiting researchers, and industry collaborators.

INRIA has 5 themes of its research, into which each project-team is categorized. The communicating systems theme includes work in networking, telecom, and mobility. The cognitive systems theme includes work in machine learning, graphics, computer vision, and multimedia data. The symbolic systems theme includes work in software languages, algorithms, and reliability. The numerical systems theme includes work in automatic control, robotics, signal processing, and scientific computing. The biological systems theme includes work in modeling and simulation for medicine and biology.

Many of the Cognitive Systems projects either employ pattern recognition techniques or are directly pursuing research on pattern recognition methods. Some projects that will be of interest to *IAPR Newsletter* readers are briefly described here.

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The earth monitoring group, called ARIANA, is performing work involving analysis of aerial and satellite images. Major objectives in this work include segmentation and interpolation of land areas, roads, rivers, and buildings. There are many conditions particular to the capture mode that makes this work distinct and difficult. For instance, occlusion is a difficult condition, whether caused by clouds or trees, and the rules that are used for continuity of occluded parts of rivers and roads can lead to errors. Resolution is becoming higher, but is still not high enough to fully recognize many ground items except by the texture of segmented areas of these items (such as trees). Finally, the size of images and the volume of data that are produced by the satellites are so high that it is impossible to fully analyze all images, so fast image search and indexing techniques are also important.

The TEMICS group is involved in coding, communications, and watermarking of still and video images. A major goal of this group is scalable compression, that is a compression scheme that would enable video suppliers to transmit their material to devices of different size and bandwidth capabilities, all from a single compressed source, but each optimal in speed and quality to its destination.

Finally, QGAR, a graphics recognition project, is seeking to extend the bounds of symbol and line recognition. Besides facilitating image understanding and symbolic storage of the document, symbol recognition enables quick searches of document images. One can think of this as a mode of search in between textual and gray-scale picture search. When we observe the great strides made in OCR of machine text in the past decade, and the still early stages of automatic image indexing, one can understand that graphics recognition is still a challenging problem whose level of progress is somewhere between these two.

Pattern Recognition at NIST

NIST the National Institute of Standards and Technology was founded in 1901 to promote US

innovation and industrial competitiveness by advancing measurement science, standards, and technology. It is under the US Commerce Department. NIST employs about 3000 scientists, technicians, and administrative staff. The operating budget is about \$858 million. There are two NIST campuses, one in Maryland and the other in Colorado.

The names of the 7 labs go far to describe the work done at NIST: Building and Fire Research, Chemical Science and Technology, Electronics and Electrical Engineering, Information Technology, Manufacturing Engineering, Materials Science and Engineering, and Physics. The Information Technology Lab contains work that centers around computers and networks. Its divisions are: Mathematical and Computational Sciences, Advanced Networking Technologies, Computer Security, Information Access, Software Diagnosis and Conformance Testing, and Statistical Engineering. The Information Access Division contains a number of projects that have pattern recognition components. Some of these are described below.

One of the major efforts at this time is in biometrics. The US is leading the world in government adoption of biometrics. For instance, the US VISIT program, which has been put in place in the last two years, requires fingerprint and face images for visitors with visas to the US. As part of this effort, the NIST biometrics group has compiled massive databases of fingerprints (totaling about 100 million fingerprints for 16 million subjects) and faces for testing. This group is involved in work to specify fingerprint standards for storage and interoperability. They have performed fingerprint vendor technology evaluations. They have also created and run competitions on face and gait recognition. Fingerprint databases are freely available for development and testing and are being used by researchers and biometrics developers around the world.

Speech is another area in which NIST performs its unique work to drive that technology forward, to

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measure its state-of-the-art recognition rates, and to find the most promising algorithmic approaches. The procedure for doing this is typically the following: an evaluation is announced, participants are provided training data, participants submit results on test data, evaluations are performed, and a workshop is convened to present and discuss results. Current and upcoming evaluations include: automatic content extraction; classification of locales, events, activities, and relationships; machine translation; language recognition; machine translation; rich transcription; and speaker recognition.

The final project described here is TREC, (Text Retrieval Conferences). This series of conferences has taken place yearly since 1992 and forms focal points of the natural language and text retrieval communities. The goal of the conference series is to encourage research in information retrieval by providing a large test collection, uniform scoring procedures, and a forum for organizations interested in comparing their results. Some tasks involved here are: topic detection and tracking, advanced questioning and answering, and automatic summarization. A recent spin-off from the textual focus of TREC is TRECVID, whose objective is to perform automatic segmentation, indexing, and content-based retrieval of digital video.

For more information on these labs and a complete list of their projects, see their web sites: INRIA at www.inria.fr and NIST at www.nist.gov.

INSIDE the IAPR

Funny (?) things can happen when organizing an ICPR!

By Denis Laurendeau—IAPR Secretary and ICPR2002 Local Chair



The deadline for paper submission to ICPR 2006 is getting closer...this reminds me of funny and less funny things that can happen when organizing such an event. I thought that it could be

interesting to take some (electronic) space in this edition of this newsletter to provide readers with some “backstage” information on events that ICPR 2002 Organizers had to go through in organizing the event.

Murphy’s law (1)

In organizing ICPR 2002, the deadline for paper submission was set to December 15, 2001, which was a Saturday. Nothing special here except that the server of the ICPR 2002 web page with the link to the server for paper submission was subjected to a “denial of services” attack on this precise day! Try finding your computer network manager on a Saturday morning during Christmas time!!!

Murphy’s law (2)

Anyway, we managed to find the network manager and fix the problem so authors could submit their papers.

Speaking of the December 15, 2001, deadline, the night before—which was a Friday—only 300 manuscripts had been submitted on the server... We were freaking out since the attendance for a break-even budget was set to 600 participants. Remember that the unfortunate events of 9-11 were not so far away in the past, and we thought that this was the reason for the lack of interest in the ICPR. We underestimated two things. It is true that authors submit their manuscripts at the

very last minute! It is also true that it is always daytime some place in the Internet world! The result was that by the end of the deadline, more than 1200 papers had been submitted! Lesson learned: never underestimate the ability of scientists to procrastinate, and never underestimate the power of the Internet.

Murphy’s law (3)

At some point in the organizing process, we had to send stuff to the printer for preparing the bags, pens and other items that were to be given to participants. One calm afternoon, I was cleaning up the different directories in my ICPR 2002 file when I found out that the stuff I had sent to the printer for identifying the conference read “International Conference on Computer Vision and Pattern Recognition” instead of “International Conference on Pattern Recognition”!!! Mixing up CVPR and ICPR could have had a negative impact on my reputation as Local Chair! Fortunately enough, printers are also very efficient in procrastinating (see Murphy’s law (2) above), and the different items had not been prepared yet...I was thus able to send the right stuff and save my life as Local Chair!

Murphy’s law (4)

The Technical Committee Meeting for preparing the final program of the conference was held in Quebec City in March 2002. The Organizing Committee had sold Quebec City as a very nice city. When Track Co-Chairs arrived in town, the temperature was near -15C with gusty winds... talk about global warming! I remember seeing a few anxious faces during the meeting! Fortunately enough, the month of August was exceptional and the conference took place during one of the

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warmest periods of the last 10 years!!! Saved again by the bell (and global warming)!

Talking about Global warming...is something burning? Or...Murphy's law (5)

ICPR started on Sunday, August 11, 2002, with tutorials and registration. Strangely enough, the week before the conference, things had been very quiet... no special requests from participants, no last minute details to fix up...very strange feeling indeed. Either everything was fine or the beast was waiting silently to wake up...and it did! On the afternoon of August 9, 2002, a day I would call "Black Friday", I was cleaning up the different directories in my ICPR 2002 file (remember Murphy's law (3) above?) when a fire alarm went off at 3 o'clock in the afternoon. The building had to be evacuated because there was fire on the roof of the building where my office is located. I had to fight with the fire fighters to be allowed to enter the building to recover all my ICPR files (with bills to pay, receipts, lists of all kinds, etc.)...and my laptop, not to mention the 20 IAPR framed certificates that were to be given to fellows and other ICPR award recipients!!! I managed to save everything and bring the stuff home safely. Fortunately enough, the fire was not serious and my office was not affected by smoke or water...and the conference went very well, I guess.

This is an advice to future ICPR organizers: Murphy's law is always verified...but its effects are compensated by hard work ... and unexpected luck!

News from the IAPR EXECUTIVE COMMITTEE

By [Denis Laurendeau](#)

Further to approval by the GB in an electronic ballot (see the last issue of the *Newsletter*), we are pleased to announce the creation of the "J.K. Aggarwal Prize". This new prize will recognize the achievements of outstanding young researchers (under the age of 40 at the deadline for nominations) in the IAPR community.

As a result of this vote, the first "J.K. Aggarwal Prize" will be awarded at ICPR2006 in Hong Kong according to the following procedure. The IAPR President, Walter Kropatsch, will, with the help of ExCo members, set up a selection committee for the prize and nominate a Committee Chair. A Call for Nominations will be sent to the IAPR community as soon as possible. The ExCo will prepare nomination and endorsement forms that will need to be submitted to the appointed Chair before February 1, 2006. Except for minor details, the nomination and endorsement forms will be similar to the ones that are currently used for the K.S. Fu Prize. Based on the received nomination and endorsement forms, the Selection Committee will proceed to the selection of the recipient of the first "J.K. Aggarwal Prize". Except for minor details, the selection will be based on a procedure similar to the one that is currently used for the K.S. Fu Prize. The Constitution and Bylaws Committee will be asked to prepare a formal procedure and set of rules for the new prize. This procedure and the new rules will be submitted to the GB for approval at ICPR2006 in Hong Kong.

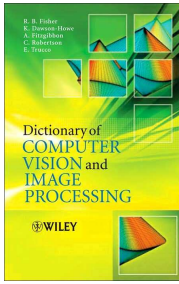
The Chair for TC1, Fabio Rolli, has informed the ExCo that the winner of the Pierre Devijver award for 2006 is Professor Robert P.W. Duin. Professor Duin will present the Pierre Devijver

Lecture during the S+SSPR Workshop in Hong Kong, China, August 17-19, 2006, that will take place immediately before ICPR2006.

Speaking of ICPR2006, the deadline for paper submission has been extended to January 16, 2006. The ExCo invites the IAPR community to submit high quality papers and to participate actively in the success of this ICPR. The Call for Paper as well as the instructions for formatting the manuscripts (IEEE templates) can be found at www.comp.hkbu.edu.hk/~icpr06/.

The sad news about the sudden demise of Dr. Adnan Amin has been brought to the Pattern Recognition community (see related article in this issue). Dr. Amin was a Senior Lecturer at the School of Computer Science and Engineering at the University of New South Wales in Australia. Through his publication of scientific papers, his presentations to conferences and workshops, and his active participation in the activities of TC2 of the IAPR as Chairman from 1998 to 2002, Professor Amin has been acknowledged as a respected researcher and as a friend. The ExCo has sent a letter of condolences to Professor Amin's family expressing its compassion in these difficult times.

BOOKSBOOKSBOOKS



Dictionary of Computer Vision and Image Processing

By R.B. Fisher, K. Dawson-Howe, A. Fitzgibbon, C. Robertson, E. Trucco
John Wiley & Sons, August 12, 2005

Reviewed by: [Larry O’Gorman](#)

It’s about time! The fields of digital image processing and computer vision have been around for about 40 years now. One mark of a mature field is a dictionary of terms. To my knowledge there has not been a book devoted to this purpose before. Some texts have glossaries, but they have neither been as extensive nor comprehensive as to cover the whole field. Perhaps because of this, I have sometimes noticed imprecise use of terms, re-invention of terms, and failure to call something by a term that has already been established (but perhaps not become widely known). This 342-page handbook should remedy these problems very well.

The book has over 2500 definitions. Many of the definitions are accompanied by pictures or diagrams. Want to know what a “region of interest” is? Look it up, and you’ll find an 18-line definition and a figure. The definition contains not only what it is, but when it might be used (to reduce competition or to focus processing such as to reduce algorithmic distraction or distortion). Furthermore, there is a textual example of use (for tracking a target through an image sequence). The figure shows a picture of a man’s face with a box around the eye, and the image portion within that box is extracted.

I looked up Lambert’s Law. This is the rule that the observed shading on an ideal diffuse reflector is independent of the observer’s position, but dependent upon the angle, q , of the source. How is this angle measured? A dia-

gram is right there to show this.

Here’s a term that I could have used the dictionary for in the past, “profile”. A profile is a histogram of the number of on-valued pixels in rows and columns. There is a horizontal and vertical profile – which I’m sure I’ve mixed up in the past. I have always been unsure whether the horizontal profile is along the horizontal axis, or accumulates horizontal rows, in which case it’s along the vertical axis. The dictionary tells me that the horizontal profile is an accumulation of pixels in each row and vertical profile is an accumulation for columns. Now, I won’t make that mistake again.

The definitions are well-written, clear, and concise. The accompanying figures are a marvel of high-definition printing. Although they are downright miniscule, averaging 2 by 5 cm ($\frac{3}{4}$ inch by 2 inches), they are usually very readable and instructive. Look up low-pass filtering and the accompanying figure shows a well-focused photograph of a piece of complex machinery and a blurred—low-pass filtered—picture beside it. Look up “watermarking” and you’ll be pointed to “digital watermarking” where there is a photo of a face, an image containing the word “watermark”, and a final image where these are combined and you can make out the watermark within the face image. Look up “semantic net” and the accompanying figure shows a simple example of a line drawing of an arch upon supports, and the semantic net,

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which shows how these components relate to one another.

Although not in excess, the authors are not afraid to use equations when that is the best way to complement a textual definition. The cosine transform, cross-correlation, and multi-variate normal distribution—to name a few—all appear with equations.

The cross-referencing is excellent, as indicated by underlined words and phrases. For instance, the entry for “half-toning” has “See dithering.” Under “image warping”, the definition contains an example of its use containing, “to correct some image distortion”.

I have a minor quibble with the “References”—or bibliography—section, which lists 13 text books in the field. As explained in the Preface, this is included to aid readers who want to delve more deeply into concepts than a dictionary can provide. After each book listing, there is a one or two sentence description to give readers an idea how well the book might meet the reader’s purposes. However, by inclusion in the dictionary and by being located up front between the Preface and the definitions, there is an implication that the list is comprehensive. But many good books are not on this list, and some books that do appear, are admitted to be “dated.” Two classic, popular, up-to-date, and excellent books that have been mentioned recently in issues of this Newsletter, but do not appear in this list, are Machine Vision (3rd ed) by Davies, and Digital Image Processing (2nd ed.) by Gonzalez and Woods.

My small quibble aside, I believe this dictionary will make an excellent complement to the library of any computer vision and image processing student, researcher, or practitioner. I know that the next time I’m writing about profiles, I won’t delay with my confusion between horizontal and vertical. I’ll just reach for my copy of this dictionary.

Call for Papers: ICPR 2006



ICPR 2006 will be held at the [Hong Kong Convention and Exhibition Center](#)

Revised

Important Dates:

Deadline for paper submission:	16 Jan. 2006
Deadline for tutorial submission:	15 Jan. 2006
Notification of acceptance	15 Mar. 2006
Camera-ready papers:	15 May 2006
Author registration:	15 May 2006
End of early bird registration period:	30 May 2006

PAPER SUBMISSION

The paper page limit is 4 pages. Anonymous papers should be written in English and submitted in pdf format. Formatting instructions provided by the IEEE Computer Society Press are available from the ICPR'06 conference website. By submitting your paper, you warrant that neither it nor any related paper with essentially the same technical content has been submitted for publication anywhere else.

Call for WORKSHOPS and TUTORIALS

Full-day workshops and half-day tutorials will be held on August 20, 2006. Proposals and enquiries can be sent to the workshop and tutorial chairs.

ICPR 2006 Contact Information:

ICPR06 Secretary
Email: icpr06@comp.hkbu.edu.hk

See you in Hong Kong!

The major event in the IAPR calendar is the biennial International Conference on Pattern Recognition (ICPR), which attracts scientists, researchers, and practitioners in the field from all over the world. Here they are able to listen, to learn, to educate, and to exchange ideas with their colleagues.

ICPR 2006 will take place in Hong Kong and will consist of 5 tracks:

Computer Vision and Image Analysis

Pattern Recognition and Basic Technologies

Signal, Speech and Image Processing

Systems, Robotics and Applications
(with Associated Theme : Biometrics)

Cognitive Approaches & Soft Computing



The Venue

The award-winning, multi purpose-built [Hong Kong Convention and Exhibition Centre](#) is larger than any in Asia outside Japan - five exhibition halls, two ballroom-style convention halls, two world-class theatres, 52 variously sized meeting rooms, two large foyers for pre-function gatherings plus supporting amenities.

Call for Nominees

King-Sun Fu Prize

Past winners of the

K-S Fu Prize:

Professor Azriel Rosenfeld
1988 Rome

Professor R.L. Kashyap
1990 Atlantic City

Professor Levin Kanal
1992 The Hague

Professor Herbert Freeman
1994 Jerusalem

Professor Teuvo Kohonen
1996 Vienna

Professor [Jean-Claude Simon](#)
1998 Brisbane

Professor [Theo Pavlidis](#)
2000 Barcelona

Professor [Thomas S. Huang](#)
2002 Quebec City

Professor [J. K. Aggarwal](#)
2004 Cambridge

The International Association for Pattern Recognition (IAPR) is pleased to announce a call for nominations for the King-Sun Fu Prize in honor of the memory of Professor King-Sun Fu.

Professor Fu was instrumental in the founding of IAPR, served as its first president, and is widely recognized for his extensive contributions to the field of pattern recognition.

This biennial prize is given to a living person in the recognition of an outstanding technical contribution to the field of pattern recognition, and consists of a cash amount and a suitably inscribed certificate. The prize is derived from interest income from a special fund set up for this purpose.

The prize recipient shall be selected by the Prize Committee, subject to approval by the IAPR Governing Board, upon nomination by a member of a national member society of IAPR and by endorsement of at least five members, representing at least two member societies different from that of the nominators.

Members of the IAPR Executive Committee, as well as of the Award Committee, shall be ineligible for the prize and may not serve as nominators or endorsers.

The 2006 prize will be presented at the

**International Conference on
Pattern Recognition (ICPR)**

Hong Kong
20-24 August 2006

The nomination must be made on a [special nomination and the endorsement forms](#) (in the MS Word format), and must be received by the Award Committee Chairman no later than **15 January 2006**. Both completed and signed nomination and endorsement forms must be submitted in the paper form (no electronic submission). The nominator as well as endorsers should mail their completed forms directly to the chairman of the Prize Committee:

Prof. J. K. Aggarwal, Chair K-S. Fu Prize Committee
Department of Electrical and Computer Engineering,
The University of Texas at Austin,
1 University Station C0803
Austin, Texas, USA 78712-0240
email: aggarwaljk@mail.utexas.edu

Call for Nominees

J.K. Aggarwal Prize

Nomination
deadline is
February 1, 2006

Forms available at:
[www.iapr.org/
awards/
JKAprize.php](http://www.iapr.org/awards/JKAprize.php)

The International Association for Pattern Recognition (IAPR) is pleased to announce a call for nominations for the first J.K. Aggarwal Prize in honor of Professor J.K. Aggarwal.

Professor Aggarwal is widely recognized for his extensive contributions to the field of pattern recognition and for his participation in IAPR's activities.

This first prize (which is to become a biennial prize) is to be awarded at ICPR2006 in Hong Kong. The recipient will be a young scientist, under the age of 40 (at the date of the deadline for nominations), who has brought a substantial contribution to a field that is relevant to the IAPR community and whose research work has had a major impact on the field. The prize consists of a cash amount and a suitably inscribed certificate. The prize is derived from interest income from a special fund that has been set up for this purpose.

The prize recipient shall be selected by the J. K. Aggarwal Prize Committee,—subject to approval by the IAPR Governing Board—upon nomination by a member of an IAPR member society and endorsement of four members who represent at least two member societies different from that of the nominators and nominee.

Members of the IAPR Executive Committee as well as of the J.K. Aggarwal Prize Committee shall be ineligible for the prize and may not serve as nominators or endorsers.

The 2006 prize will be presented at the:

International Conference on Pattern Recognition
Hong Kong
August 20-24, 2006

The recipient is expected to present an invited talk at the conference.

The nomination must be made on special nomination and the endorsement forms (in MS Word format), and must be received by the Appointed J.K. Aggarwal Prize Committee Chairman no later than February 1, 2006. Both completed and signed nomination and endorsement forms must be submitted in the electronic form. The nominator as well as endorsers should email their completed forms directly to the Appointed Chairman of the J.K. Aggarwal Prize Committee via the specified email address:

Prof. Brian C. Lovell
Appointed Chair J.K. Aggarwal Prize Committee
Research Director IRIS
School of Information Technology and Electrical Engineering
The University of Queensland
St Lucia 4072
Brisbane
Queensland 4072
Australia
aggarwal-prize@itee.uq.edu.au

Technical Committee Report

TC6 Special Hardware and Software Environments



[Markus Vincze](#)
Chair



[Darius Burschka](#)
Co-Chair

For more information
on IAPR TC6
Special Hardware and
Software
Environments see:

[www.acin.tuwien.ac.at/
groups/robtec/iapr/
home.htm](http://www.acin.tuwien.ac.at/groups/robtec/iapr/home.htm)

The rapid development of computer hardware accompanied by advances in algorithmic processing of sensor data makes applications involving special hardware and software solutions feasible for a broad spectrum of consumers. Recent advances in sensor data processing combined with appropriate filtering techniques allow replacement of conventional expensive systems by low-cost components that compensate for the reduced accuracy and sensitivity of the sensors with algorithmic solutions. The advantage is that the costs are spent once on the actual design and allow a cheap reproduction of the systems.

On the other hand, most computer vision applications are based on basic image processing algorithms with known optimized implementations that, typically, get re-implemented for each new application from scratch. The successful integration of computer vision in educational programs and a broad application of computer vision in multiple domains of our daily lives requires standardized software toolkits that provide this basic framework. A set of software packages exists in the open source community that provides such functionality for rapid prototyping with tools like MATLAB or that implement a framework for real-time Applications in C/C++. One goal of this Technical Committee (TC6) is to collect the information about such tools in one place and construct a database containing references to such tools. We plan to promote an exchange between groups providing such open source resources.

IAPR's Technical Committee 6 (TC6) on Special Hardware and Software Environments promotes interaction between groups providing software solutions to the research community. This promotion is manifested in editorials of special issues about tools that are available for research applications and collection of available information in one central place. The web-site of the [IAPR-TC6](#) is targeted to become the source for software and hardware solutions available worldwide.

Additionally, the IAPR-TC6 plans to help with organization of workshops and tutorials related to open source applications and fusion of sensor information to promote the development of new sensor types based on standard hardware and to investigate new methods of image formation that can be exploited in special hardware systems.

The work of IAPR-TC6 is not possible without an active contribution of its members. Therefore, we invite everyone to join our mailing list and to exchange ideas for events and activities in this emerging challenging field. We invite you to visit our web-site www.acin.tuwien.ac.at/groups/robtec/iapr/home.htm for more information and to contribute ideas and resources.

Conference Report: [AVBPA 2005](#)

General Chair: Takeo Kanade, CMU

Co-Program Chairs: Anil Jain, MSU and Nalini Ratha, IBM

Fifth International Conference on Audio- and Video-based Biometric Person Authentication

20-22 July 2005, Rye Brook, NY, USA

Report prepared by the Conference Chairs



Prof. Donald Geman receiving the best student paper award on behalf of Yuchun Fang.



Umut Uludag receiving the best student paper award from Dr. Paul Griffin, CTO, Identix.



Norman Poh receiving the best poster award from Dr. Paul Griffin, CTO, Identix.



The venue of the banquet: cruise ship that took the participants around the New York City.

The heightened interest in security technologies in the society is clearly visible from the large number of paper submissions at this conference. From a total of 198 papers submitted to the conference, 34 were accepted for oral presentation. A new “short oral” track was introduced in this year’s AVBPA, in which speakers were allowed only five minutes to present their work. The participants actually enjoyed the new format as the speakers spent time only on their contributions and not on the background, introduction and future work. In addition, there were 50 posters spread over the first two days of the conference. The conference had 160 registrations with participants from 20 countries.

We invited two keynote speakers: Dr. Simon Baker from the Robotics Institute, Carnegie Mellon University and Dr. Behnam Bavarian of Motorola. Identix sponsored three student paper awards at the conference. Several paper awards were given. Yuchun Fang (Experiments in Mental Face Retrieval) and Umut Uludag (Fuzzy Vault for Fingerprints) received the best student paper awards of a plaque with a \$1,000 check each at the conference banquet. Norman Poh (A Novel Approach to Combining Client-Dependent and Confidence Information in Multimodal Biometrics) received the best student poster award of a plaque and \$500 check also at the conference banquet.

The social program consisted of a reception on the evening of July 20 and a banquet cruise around New York on July 21, partly sponsored by Motorola. The banquet dinner tickets for student participants were sponsored by IBM Research. AVBPA 2005 also received a significant industrial sponsorship from a number of companies (IBM Research, Identix, Motorola, OmniPerception, Proximex, Springer, USBiometrics VideoMining) resulting in a highly successful conference.

The organizers are proud to announce that the surplus from the conference is going to be used to set up an endowment to create a new best biometrics student paper under IAPR. Over the last eight years, AVBPA has created a significant impact in the biometrics technology area. AVBPA will be merged into the [International Conference on Biometrics](#), the first of which to be held in Korea in 2007.

Proceedings from
AVBPA2005 are available
in the
[Springer Lecture Notes in
Computer Science Series,
Volume 3546](#)

Conference Report: [X CIARP 2005](#)

General Co-Chairs

Alberto Sanfeliu Cortés, Polytechnic University of Cataluña, Spain

Manuel Lazo Cortés, Institute for Cybernetic

Sergio Cano Ortiz, University of Oriente

10th Iberoamerican Congress on Pattern Recognition

Occidental Miramar Hotel, Havana, Cuba

15-18 November 2005

Report prepared by: [Manuel Lazo](#)



Dr. J. Ruiz-Shulcloper President of Cuban Association for Pattern Recognition opening the Congress.

X CIARP was organized by Cuban Association for Pattern Recognition (ACRP), the Institute of Cybernetics, Mathematics and Physics (ICIMAF) and the Advanced Technologies Application Center (CENATAV). It was co-sponsored by the Portuguese Association for Pattern Recognition (APRP), the Spanish Association for Pattern Recognition and Image Analysis (AERFAI), the Special Interest Group of the Brazilian Computer Society (SIGPR-SBC), and the Mexican Association for Computer Vision, Neuro-computing and Robotics (MACVNR). XCIARP was endorsed by International Association for Pattern Recognition (IAPR).

We received contributions from 29 countries. More than 200 papers were submitted, out of which 107 were accepted for publication in the proceedings and for presentation at the conference. The accepted papers were published by Springer in the volume *Progress in Pattern Recognition, Image Analysis, and Applications*, LNCS 3773, edited by Alberto Sanfeliu and Manuel Lazo-Cortés, who chaired the Congress together with Sergio Cano.

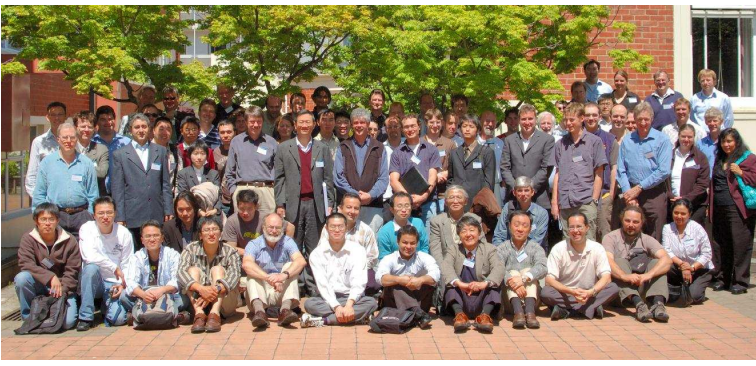
Three professors were invited to give keynote addresses on topics in Pattern Recognition: Prof. Josef Kittler, Surrey University, United Kingdom, presented a talk entitled “3D Assisted 2D Face Recognition: Methodology”; Prof. Alberto Del Bimbo, University of Florence, Italy, addressed the “Automatic Annotation of Sport Video Content”; and Dr. Eduardo Bayro Corrochano, Center of Research and Advanced Studies, Guadalajara, Mexico, talked about “Conformal Geometric Algebra for 3D Object Recognition and Visual Tracking Using Stereo and Omnidirectional Robot Vision”. Four tutorials were offered by these invited speakers and by Prof. Marcia Ferreira from State University of Campinas, Sao Paulo, Brazil.

X CIARP in Havana, on par with its predecessors, drew together high quality contributions, inspiring invited talks, and exciting discussions through participating groups, arranged in a flawless programme. It has been a valuable experience for the participants, and maintained the reputation of the Iberoamerican Congress on Pattern Recognition series as a highly recommended event to participate in, especially for the Iberoamerican researcher community.

The 11th Iberoamerican Congress on Pattern Recognition will be held in Cancún, México, in November 2006.

Proceedings from
X CIARP 2005 are available
in the
[Springer Lecture Notes in
Computer Science Series,
Volume 3773](#)

NOTE: Proceedings from the 2003 and 2004 editions of XCIARP are also available in the LNCS Series.



Conference Report: [IVCNZ 2005](#)

Conference Chair:
Brendan McCane

Image and Vision Computing New Zealand

28-29 November 2005, Dunedin, New Zealand

Report prepared by: **Brendan McCane**

Image and Vision Computing New Zealand 2005 brought together more than 90 attendees from various places including New Zealand, Australia, Turkey, Germany, Taiwan, Japan, Singapore, USA and South Korea.

Two very different, but equally fascinating keynotes were presented. The first, by Professor Terry Caelli of the National ICT Australia Laboratory in Canberra, was titled "Solutions to Point Set Matching using Optimal Inference in Bayesian Networks" and discussed the idea of using dynamic programming for optimal inference on Bayesian networks. The second, by Dr Larry Spitz of DocRec which is situated in Nelson, New Zealand, was titled "A Valiant Attempt to Reconstruct Don Quixote" and discussed the problems inherent in attempting to automatically recognise the text in historical documents.

Many other interesting papers were also presented. There were 145 submissions of which 89 were accepted—28 oral and 61 poster presentations. Consequently, the standard of papers was very high. This year, three prizes were presented. The best paper prize was won by Georgy Gimel'farb, John Morris, Patrice Delmas and Jiang Liu for their paper, "Noise-driven Symmetric Concurrent Stereo Matching". The best poster prize was won by Christopher Madden and Massimo Piccardi for their paper, "Height Measurement as a Session-based Biometric for People Matching Across Disjoint Camera Views". Both of these winners received extremely nice bottles of Pinot Noir from the Waitaki valley in North Otago. The best student prize was won by Xiang Wang, Reinhard Klette and Bodo Rosenhahn for their paper, "Geometric and photometric correction of projected rectangular pictures". The best student prize was a cash prize of \$NZ250 kindly donated by one of our sponsors, Applied Research Associates NZ Ltd. The criteria for a student paper was that the first author be a

student at the time of submission to the conference. All papers will be available online at www.cs.otago.ac.nz/ivcnz05/.

Integral to the success of the conference was the kind donations by our sponsors. Our major sponsors were the Spatial Information Processing theme at the University of Otago, and ControlVision which is an industrial computer vision solutions company based in Auckland. Other sponsors included SGI New Zealand, Applied Research Associates NZ Ltd, Savant Information Systems and Hoare Research Software Ltd. Many thanks to our sponsors.

The conference dinner was held at the well known Speight's Ale House which is attached to the iconic Speight's brewery—one of the larger breweries in the South Island of New Zealand. Consequently, the attendees felt obliged to partake in the fruits of the brewery which created a very good atmosphere for the dinner. There were surprisingly few sore heads the next morning, and Larry's keynote speech was well attended much to the relief of the conference organiser.

A special word must be made for the excellent work behind the scenes by the local organising committee. They are: Sui-Ling Ming-Wong, Kaye Saunders, Dave Robertson, Matthew Jenkin, Jayson Mackie and Damon Simpson.

Next year the conference will be hosted by Auckland University and organised by Patrice Delmas and John Morris among others. We hope that many of the IAPR community will be able to continue to support IVCNZ in the future and, for those overseas guests, to experience the fantastic place that is New Zealand. See you all next year.

Of interest...

Non-IAPR Conferences & Workshops

CALL FOR PAPERS

DAGM 2006
**28TH Annual Symposium of the
German Association for Pattern
Recognition**

For more information see:
dagm06.hhi.de/index.html

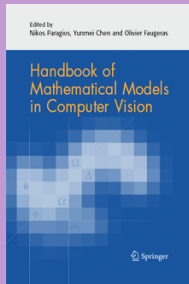
CALL FOR PAPERS

BMVC 2006
**17th British Machine Vision
Conference**

For more information see:
www.macs.hw.ac.uk/bmvc2006/

Publications

Handbook of Mathematical Methods in Computer Vision



By Nikos Paragios, Yunmei Chen & Olivier Faugeras

Springer (2005), ISBN 0387263713, 594 pages, 210
Illustrations, October 2005

For details, a sample chapter and purchase details see:
cermics.enpc.fr/~paragios/paragios-chen-faugeras/

CALL FOR PAPERS

**IEEE Transactions on Systems, Man
and Cybernetics—Part B**

**Special Issue on
Recent Advances in Biometrics Systems**

DEADLINE: May 1, 2006

For information see:
www.ieeesmc.org/Newsletter/dec2005/bioCFP.pdf

CALL FOR PAPERS

Biometrics: Progress and Directions
IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI)
Special Issue
July Issue of 2007

DEADLINE: February 1, 2006

For information see:
www.computer.org/portal/cms_docs_transactions/transactions/tpami/CFP/TPAMI_Biometrics_CFP_v3.pdf