Summer 2002
Volume 24 No 3

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

LETTER FROM DENIS LAURENDEAU

Dear IAPR Member

ICPR 2002 IS COMING SOON

THE MEETING PROMISES TO BE AN EXCITING technical event with more than 800 high quality papers to be presented by scientists and researchers from all over the world. In addition to regular papers and posters, the conference program presents 7 invited papers and a panel session to cover frontier areas for in-depth and in-breadth analyses and insights, and special interest. Eight tutorials are presented on Sunday August 11 AM and PM.

In addition to the technical aspect of the conference, ICPR 2002 also offers an attractive selection of social and tourist activities that will allow you to enjoy your stay in the Quebec City area, to see and explore its city and wildlife, and to visit the natural and beautiful spots of this region.

THE FOLLOWING INFORMATION IS POSTED ON THE CONFERENCE WEBSITE
www.icpr2002.gel.ulaval.ca

Registration form (conference registration, tutorials, social events, tours and other activities)
Hotel Accommodation Form - Hilton Quebec and Radisson Hotel Quebec Center
(both hotels are located within walking distance of the Quebec City Convention Center)
Preliminary Conference Program and Tutorial Program
Information on Companion Events and Special Events
Travel information

CONFERENCE SOCIAL EVENTS

The Organizing Committee is working hard to make this conference a memorable event. In addition to the exciting scientific activities that will take place at the Quebec City Convention Center during August 11-15, 2002, participants are invited to attend the Conference Welcome Cocktail on Sunday, August 11 (19:30, Foyer of the Convention Center), and the Conference Banquet on Wednesday, August 14 (18:30 – Room 200ABCD of the Convention Center). Quebec City has a world-class reputation for its fine cuisine and we hope that the banquet will meet this expectation.

The members of the Organizing Committee are looking forward to meeting you in August.

CALL FOR PAPERS

PATTERN RECOGNITION

(The Journal of the Pattern Recognition Society)

Special Issue on Grammatical Inference Techniques & Applications

THIS SPECIAL ISSUE WILL BE PUBLISHED IN APRIL, 2004 TO COMMEMORATE AND HONOR THE MEMORY OF **Professor K. S. Fu**. Grammatical Inference (GI) is a collection of methodologies for learning grammars from training data. The most traditional field of application of GI has been syntactic pattern recognition. In the recent past, however, concerted efforts from diverse disciplines to find tractable inference techniques have added new dimensions and opened up uncharted territories. Applications of GI in more nontraditional fields include Gene Analysis, Sequence Prediction, Cryptography and Information Retrieval. Development of algorithms for GI has evolved over the years from dealing with only positive training samples to more fundamental efforts that try to circumvent the lack of negative samples.. This idea is pursued in stochastic grammars and languages which attempt to overcome absence of negative samples by gathering statistical information from available positive samples.

Also within the framework of information theory, probability estimation technique for the Hidden Markov Model known as Backward-Forward and for Context-Free language, the Inside-Outside algorithm are the focal point of investigations in stochastic grammar field. Techniques that use intelligent search to infer the rules of grammar are showing considerable promise. Recently, there has been a surge of activities dealing with specialized neural network architecture and dedicated learning algorithms to approach the GI problems. In more customary track, research in learning classes of transducers continues to arouse interests in GI community. Close interaction/collaboration between different disciplines and availability of powerful computers are fueling novel research efforts in GI.

The objective of the Special Issue is to present the current status of this topic through the works of researchers in different disciplines. Original and tutorial papers are solicited that address theoretical and practical issues on this theme. Topics of interest include (but are not limited to):

Theory

- Neural network framework and learning algorithms geared to GI
- GI via heuristic and genetic search
- Inference mechanisms for stochastic grammars/languages
- Algebraic methods for identification of languages
- Transduction learning

Applications

- Image processing and computer vision
- Biosequence analysis and prediction
- Speech and natural language processing
- Data mining/information retrieval
- Optical character recognition

Submission Procedure

Only electronic (ftp) submission will be accepted. Instructions for submission of papers will be posted on November 10 at the guest editor's web site (http://www-ee.ccny.cuny.edu/basu) . All submitted papers will be reviewed according to guidelines and standards of Pattern Recognition.

Deadlines:

Manuscript Submission: December 10, 2002
Notification of Acceptance: April 16, 2003
Final Manuscript Due: June 16, 2003
Publication Date: April 2004

Guest Editor: Mitra Basu , The City College of CUNY, New York, U.S.A. basu@ccny.cuny.edu

FROM THE EXCO

ICPR 2002 QUEBEC CITY

By the time you receive this newsletter, we hope that many of you prepare for the trip to the IAPR's main event, the International Conference on Pattern Recognition, to be held in Québec City on August 12-15. We all look forward to an exciting scientific program, but also to a new opportunity to meet many colleagues who have become friends: an additional benefit of these events is indeed the many human and personal connections made when meeting colleagues from throughout the world.

TRAVEL STIPENDS

As announced in the last newsletter, the ExCo had made known that it would hand out a number of travel stipends of 500 USD each to authors of papers accepted at ICPR, oral or poster, who would not be able to attend the ICPR without this contribution. The interest was overwhelming; we received 125 applications, and after careful examination and hard-to-make decisions, we gave 35 stipends to ICPR authors – most of them PhD students – from the following countries: Algeria, Australia, Belarus, Brazil, China (including Hong Kong), Czech Republic, Hungary, India, Iran, Macedonia, Mexico, Poland, Russia, Spain, Turkey, and USA. We wish the lucky recipients, but also all other authors and participants, a very pleasant and fruitful attendance at ICPR, and we do hope that the money spent in this way will have a good scientific impact on the authors' own research and that of their respective institutions.

K-S FU PRIZE

As reported opposite, the K-S. Fu Prize Committee have unanimously recommended Professor Thomas S. Huang to receive this year's K-S. Fu Prize. The committee was impressed by his fundamental work on 3D motion estimation that established the field of structure from motion. The Governing Board approved this nomination by majority vote. The ExCo extends its warmest congratulations to Professor Huang.

IAPR FELLOWS

The Fellowship Committee has also finished its job and has proposed 18 new IAPR Fellows, who will receive their Fellow certificate at ICPR. The number of new Fellows to be elected this year is based on a percentage (0.25%) of the total membership of IAPR. More than 30 nominations for valuable candidates were submitted. The ExCo warmly invites the nominators to present next time updated nominations of candidates who were not elected this year.

GOVERNING BOARD MEETING

We remind GB-members to check the GB-reserved area of the IAPR website, where info on the GB-meeting is posted. No mailing will be done, and GB-members are kindly requested to print the material relevant for the GB-meeting directly from the IAPR website.

We look forward to meeting many of you in Québec. In the mean time, we wish you very pleasant holidays, for those who take some days or weeks off in the coming months.

The 2002 King-Sun Fu Prize

The King-Sun Fu Prize is awarded biennially to a living person in recognition of outstanding contributions to the field of Pattern Recognition and honours the memory of Professor King-Sun Fu who was instrumental in the founding of IAPR and served as its first President. He is widely recognised for his own extensive contributions to the field.

It is with great pleasure that IAPR will award the 2002 prize to Professor Thomas S Huang in Quebec City. The nominator's proposed citation is as follows:

For Pioneering Contributions to 3D Motion and Structure Estimation from 2D Image Sequences.

Full biographical details of Professor Huang can be found on two websites:

The ICPR site
http://icpr2002.gel.ulaval.ca/
and
The IAPR site
http://www.iapr.org/

FORUM 1

ARE COMPUTERS WINNING?

At the start of a new millennium (somewhat belatedly), perhaps it is a good time to look back fifty or so years and to try to assess how far we have come in using computers to supplement or even to replace human intelligence in a wide range of human activities. Was the excitement justified that we all felt in the post World War II period when computers were just beginning to embody artificial intelligence? Or was it merely a result of wishful thinking?

There is no doubt that the ubiquitous computer is affecting our lives at work and at home. Newspaper production, banking, retailing, television programming, manufacturing, travel arranging are all obvious examples of activities where computers play an active role even though as consumers we are rarely aware of them working behind the scenes. We use personal computers at home to write letters or send emails and even to plan our time and finances; some find pleasure in computer games whilst others use computers as an almost unlimited source of information. Computing is no longer an activity confined to an initiated few.

But thinking closer to the aims and interests of IAPR, it has been rather disappointing that computer systems employing artificial vision or hearing (speech recognition) are still not generally available at reasonable cost with acceptable performance. But what do 'reasonable' and 'acceptable' mean in this context?

Computers work best when simple tasks are to be carried out at high speed. Checking tick-boxes on pre-printed forms is the sort of operation that is well suited to a computer. The limitation on speed is likely to be set by the paper handling mechanism required to present the documents to an optical scanner. Even so, a certain fraction of completed forms will contain records that the computer treats as ambiguous, which will need human interaction to interpret correctly (such as a misaligned or badly written tick).

It is often the case that the human brain will score over computers by using contextual information in coming to a decision. Thus a form returned with crosses, rather than ticks, in the boxes would most likely be rejected by a computer-driven checker; to a human checker the intention would be clear. Why, then do computer programmers not anticipate this sort of situation when the automatic checking program is originally written?

There are at least two answers to this question. First, a program, which takes into account every possible distortion of procedures to be used in completing a pre-printed form, would inevitably run very slowly. Secondly, to anticipate every possible distortion would be an impossible task; the human checker avoids this by responding to each new situation as it arises, using brain power to generalise and deduce the intention of the person who produced the completed form.

So, what constitutes reasonable cost and acceptable performance? Reasonable cost would probably be considered to be at less than that incurred by employing human checkers and acceptable performance would imply checking speeds no less than those achieved by humans when employed in sufficient numbers to achieve speeds adequate for the task in hand.

Unfortunately, it has turned out to be extremely difficult to devise automatic systems, which perform well on a range of differing tasks in a variety of environments. The *tick-box checker* would need specialised paper handling equipment which might not be able to deal with single sheets of paper as well as booklets and might be defeated by a form to be completed by underlining a preferred option (rather than by ticking a box). It is this lack of flexibility that has been a major reason why computers are more likely to be found controlling large-scale, well-defined operations in factories rather than being used in the multitude of everyday tasks arising in the home.

However, to be honest, most of us still do not really trust computers. Imagine a situation in which you and your friends want to go out to dinner. You ring for a taxi and, when it arrives, you discover that instead of a driver, you are faced with a computer-controlled guidance system, which, in a flat metallic voice, asks you to enter the vehicle and clearly state your destination. Would you get in? I wouldn't!

Nevertheless, there are trains and aircraft in use today in which most of the operations are carried out by computers, the driver or pilot being present mainly to deal with unforeseen occurrences and to give confidence to passengers. The fact is that modern transport systems are so complicated that human control without computer back-up would not be able to cope with their complexity. Would it be such a big step to dispense with the human element altogether?

Michael Duff

FORUM 2

ALL THAT GLITTERS IS NOT GOLD

I STARTED MY RESEARCH ACTIVITY WHILST I WAS still a student, about twenty five years ago. A quarter of a century is a reasonable period of time to take stock of one's scientific life and I would like to share my thoughts with you now.

When I started, I had a huge number of wishes and expectations for my scientific future and professional career. I must admit that I have been quite lucky, as most of the goals have been reached. I feel proud for my little contribution to the progress in the field of Pattern Recognition as concerns "thinning and skeletonization" and I'm really glad to be still curious, which is indispensable to continue to perform research activity. However, looking back I find at least one major expectation that has not been fulfilled: to devote all my working time only to research. Nowadays, I spend a significant fraction of my working time filling in forms to apply for grants that should help me to actually do my job. I don't know how good (or lucky?) you are with applications for money. As for me, only a part of the efforts done to get some funds are repaid. Thus, as a sort of chain reaction, I submit a larger and larger number of applications (spending more and more time filling forms) and have lesser and lesser time to actually do what I promise to do in the applications....

The romantic idea that I had twenty five years ago about what a researcher does, turned out to be utopian. All that glitters is not gold!

Gabriella Sanniti di Baja

CALLING ALL SPONSORED MEETING ORGANISERS

Please remember to submit a report of your sponsored meeting to the Editor immediately after your event is over. This is not only a condition of sponsorship but allows all those who were unable to attend to read about your conference and hopefully boost attendance at future events in the same series.

IAPR

NOTICE BOARD

IAPR NEWSLETTER

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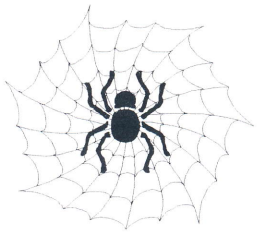
http://www.iapr.org



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NOMINATING PEOPLE FOR THE K-S FU PRIZE

Theo Pavlidis
Chair K-S Fu Prize Committee - 2000-2002

I have heard comments suggesting that the K-S Fu prize selection is biased towards the United States because all but two of the recipients have been from that country. I would like to try to explain why I believe that this is an unwarranted conclusion and how the number of prize recipients from outside the United States can be increased in the future.

TO START WITH, THE SELECTION COMMITTEE HAS a broad membership. This year three of the members are from the U.S., two from Europe, and one from Japan. The recent voting was also remarkably consistent. Not only was the top selection unanimous, but also there was no more than a place difference between the highest and the lowest ranking for any nominee. (For example if the lowest ranking that a person received was 3rd the highest would have been 2nd.) Given the nomination files we had I did not discern any bias against non-U.S. candidates.

Therefore if people wish to see more prizewinners from outside the U.S. they must submit more nominations for scientists from outside the U.S. (There are far too few now.) I was told that people are reluctant to do the large amount of work needed for a nomination because of the perceived bias. However this is a cyclical argument. Also there may be some misconceptions about the nomination process and I will try to dispel them in the rest of this note.

At the beginning the nominator must have the cooperation of the nominee. These days most scientists keep a current resume in electronic form that highlights their accomplishment and they use it in preparation of grant proposals, for their institution's internal reviews, or for job changes. (The latter is not as unlikely as it sounds. The last three prize winners from the U.S. all changed jobs after reaching the rank of full professor.) A nominator with access to that document can fill the nomination form with little effort. Good supporting letters are not that difficult to write for well-known people. People usually keep electronic copies of letters they wrote for earlier occasions and need only update them for the nomination.

It is also important to realize that while endorsements from national societies are desirable, they are by no means necessary. One individual can nominate another without going through the process of obtaining national society approval. Such a process can be counter-productive in the following manner. Suppose that there are two candidates, A and B, seeking the endorsement of a society. It may be difficult to rank the two individuals, but the society makes a hard decision and nominates B. It may well be that if the prize committee had to make a similar hard decision it would rank A ahead of B. So the pre-screening process eliminated in effect the stronger of two candidates in the eyes of the body that makes the final decision.

This observation is valid not only for the K-S Fu prize but for any competition. Tight pre-screening by different bodies than the one making the final decision is usually counter-productive. National societies should give their endorsements to any qualified candidate rather than trying to figure out the best candidate. Anyway, I doubt that the absence of a national society endorsement would hurt a truly strong nominee.

TODAY, WE ALL LIVE IN AN ERA OF EXTENSIVE international interactions and it may well be that the most appropriate nominator (one most familiar with a person's work) is not from the same country. In the past there have been several cases where U.S. scientists were nominated by people outside the U.S., both from Europe and from Japan. Now people in the U.S. (who seem more adept in the nominating process) should think seriously about nominating scientists from other countries, especially if they are their close collaborators.

First European Conference on Colour in Graphics Imaging and Vision CGIV 2-5 April 2002 Poitiers, France

THE SOCIETY OF IMAGING SCIENCE AND Technology (IS&T) First European Conference on Colour in Graphics, Imaging, and Vision (CGIV 2002) was held April 2-5, 2002 at the University of Poitiers in France. A number of cooperating societies, namely the Comite Español de Color, the European Federation of the Scientific Image, The French Color Group, the German Color Group, the Hungarian National Colour Committee, the Swedish Colour Centre Foundation, The Colour Group of the South African Optical Society, the International Association of Pattern Recognition (IAPR), the Royal Photographic Society of Great Britain, and the Flemish Innovation Centre for Graphic Communication (VICG) gave their support.

The goal of this conference was to give the growing European color community a venue to present their research, to encounter each other, and to concentrate the growing number of small European conferences and workshops into one larger conference.

The first day of the conference was dedicated to two and four hour tutorials:

David Alleysson (Switzerland) discussed the relationship between retinal physiology and standard colorimetry.
Ronnier Luo (UK) gave insights to color appearance models.
Graham Finlayson (UK) explained how to estimate the white point on images.
Patrick Emmel (Switzerland) lectured about color prediction tools for printed surfaces.
Theo Gevers (Netherlands) discussed the issues of color in image and video databases, and Thomas Madden (USA) gave an introductory and advanced tutorial on digital color management.
D. Pellerin (France) discussed how to acquire spectral information and to calibrate imaging materials.
Alain Trémeau (France) talked about quality control using color image analysis in the industrial environment, and
Michel Albert-Vanel (France) explained how to extract the color palette from paintings.

The technical program ran for three days, mostly single track, with 61 oral and 72 poster papers. This program opened with the *Color Science* session. Subsequent sessions were devoted to:

- *Vision,*
- *Image Filtering*
- *Image Classification*
- *Image rendering*
- *Device technology*
- *Inks and Media*
- *Fuzzy logic*
- *Multispectral Imaging.*

It is impossible to report in detail the content of more than 130 papers. We will therefore only give a general idea about the topics covered.

JUDGING FROM THE PAPERS PRESENTED IN THE Color Science session, it is clear that the role of the human visual system in color science will continue to be explored for quite a while. There is strong evidence that color and vision science is more and more fusing with imaging science. In the first invited presentation, Roy Berns (USA) described the need to move typical imaging practices into scientific imaging practices. He addressed various issues such as input and output sensitivities, characterization and calibration methods, and targets. The following talks covered the field of color constancy and chromatic adaptation transforms, recovery of the spectral device sensitivities, color contrast for real images, and color rendering.

A special guest speaker, Eric Badique from the European Commission, Belgium, opened the afternoon session. He discussed the European Commission's support for imaging research within the context of the 5th and 6th Framework programs.

continued on page 6

The **Vision** session consisted of presentations on topics ranging from identification of traffic signals to color appearance under cinema viewing conditions. The CIECAM97s color-appearance model received special attention. Other talks described current research in color matching, color differences, and the correlation between sharpness and color of reproduced images. The **Image Filtering** session papers addressed different issues of image processing specifically taking color information into account, a research area that is becoming more and more popular.

The sessions of the second day were related first to **Image Classification**. Most of the papers discussed how color information could be used in indexation and image retrieval, a very important topic in the color imaging community.

The **Image Rendering** session illustrated how color science is nowadays particularly present and active in computer graphics and image processing. An invited paper by Werner Purgathofer (Austria) demonstrated how realistic image rendering requires very complex attributes of the visual system, such as time dependency, visual acuity, and color sensitivity in order to cope with the range limitations of current displays. Two papers considered the problem of recovering an approximation of the bi-directional reflectance distribution function on the surface of real objects, which can open new applications. Two efficient automatic methods to improve image quality were proposed, one for still images and one for digital video sequences. One paper extensively compared the many color similarity measures that have been proposed for background-frame differencing applications, such as moving object extraction in image sequences.

The last day started with the **Device Technology** session which included presentations about using general color algorithms to solve a device specific task. Reimar Lenz (Germany) opened the session with an in-depth overview over the state-of-the-art of professional digital cameras, specifically their sensor characteristics. Following papers discussed the color calibration of a high-resolution digital camera, and the gray and color calibration of a digital printer.

The **Ink and Media** session indicated that research in this field is increasingly based on mathematical modeling of the ink, media and light interactions. As reliable predictors are becoming available, the next stage will be to use them in the context of a "total image quality management" chain that includes image processing before printing, a model of the printing device, and a model for human image quality perception. The session also included an invited presentation by Rita Hofman (Switzerland) on the color aspects in photo-quality inkjet printing. She compared the different design options and trade-offs. The effects of extending the number of inks, the selection of the additional inks and the nature of the coloring agents were brought into relation with such qualities as color stability, color gamut, halftone graininess, metameric index and gloss appearance. The parallel **Fuzzy Logic** session brought new ideas to a field of growing interest and proved them on application examples.

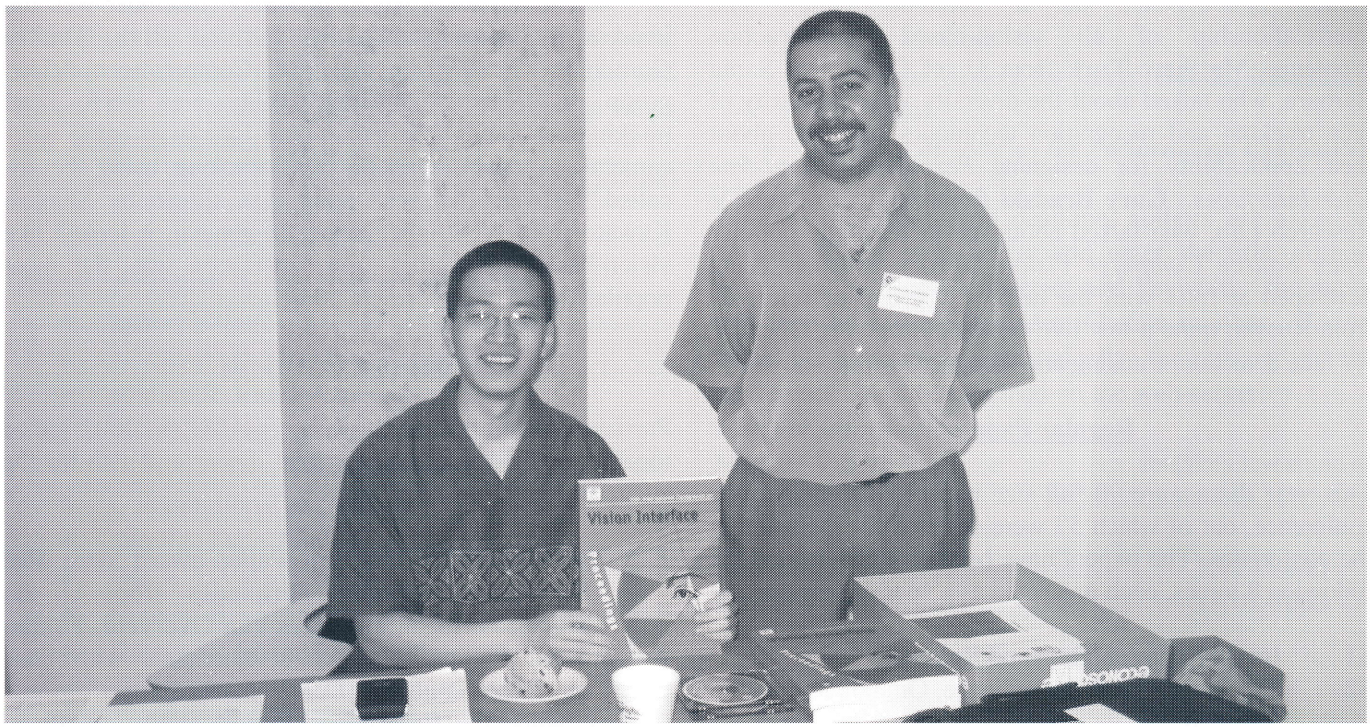
In the last session of the conference, **Multispectral Imaging**, several issues related to spectral modeling were discussed. In the invited presentation, Bernhard Hill (Germany) gave an excellent overview about the need of spectral information in color reproduction systems. Three papers discussed the reconstruction of reflectance spectra, how many basis functions are necessary to accurately reconstruct object reflectance functions, how to use a neural network to reconstruct them, and the advantages and disadvantages of different metrics to evaluate the reconstruction. In the last presentation of the conference, a method was presented to optimize the number and type of filters needed to accurately reproduce a given scene.

A total of 72 poster papers were presented in the three **Poster** sessions. The poster papers covered a wide research area, including nearly all aspects of color imaging from image recording, image and color processing (among them video object tracking, video surveillance, face recognition, vector correlation and filtering, highlight substitution, segmentation, de-noising/image, texture characterization/classification, restoration, image compression and coding, image classification, image retrieval, color naming), to color vision (color tolerances, color difference perception, opponent color spaces, chromatic adaptation transforms, color constancy, normalization, vision modeling), and to color engineering (such as image reproduction, color characterization of digital cameras, printers, quality aspects of open color imaging systems, color halftoning), and multispectral imaging systems.

This conference was of great interest to the color research community. The quality of all of the presentations was exceedingly high and the discussion following each talk revealed an audience that was both informed and interested. A copy of the proceedings, as well as individual articles can be purchased or downloaded from the IS&T web site at www.imaging.org The conference series will continue, the next CGIV is planned for 2004.

Sabine Süsstrunk, Vice President IS&T

The 15th International Conference on Vision Interface (VI'2002), May 27-29, 2002, Calgary, Canada



CIPPRS president Fathallah Noboud watches a volunteer distributing participant packages

VISION INTERFACE as a science of understanding and using visual forms is important, promising and diverse as never before. This was obvious at the 15th International Conference on Vision Interface. Having seen its first appearance fifteen years ago as a local Canadian conference, Vision Interface has now become a truly popular international conference as was shown by the 21 countries represented at the conference.

As usual, VI'2002 conference was sponsored by the Canadian Image Processing and Pattern Recognition Society (CIPPRS), and also by the International Association for Pattern Recognition (IAPR) and the National Research Council of Canada (NRC). The conference was held in campus of the University of Calgary in the newly constructed Information Technology Building, with most of attendees staying close-by at comfortable yet very affordable University of Calgary conference housing. This not only reduced the cost of conference but also made the conference flawless from the technical point of view, as all auditoriums were equipped with the most up-to-date visual-audio equipment. It is worth noting that as always, Vision Interface has strongly encouraged the participation of students, by significantly reducing the student registration fee from the regular price of $405Can to $180Can ($120US).

This year a new initiative of the on-line conference proceedings has been launched. Since it has been realized that many of demos and related video materials cannot be shown in the hardcopy proceedings, the authors were asked to provide the additional links to supplement their hardcopy papers. These links appear in the on-line proceedings, which are made available at Vision Interface and CIPPRS websites: www.visioninterface.org/vi2002 and www.cipprs.org/vi2002.

Vision Interface conferences have always been known as an excellent forum for both networking and learning. This year was no exception. The conference featured three invited talks from renowned scientists, eight single-track sessions with presentations of the accepted papers, one demo-poster session, and the electronic theatre provided by the Graphic Interface conference and the banquet with the award presentations.

..... continued overleaf

This Year's Invited Speakers

John Aloimonos from U. of Maryland, College Park, who gave an insightful talk, *Geometry and Statistics of Visual Space-Time*, on a common nature and interrelationship of all vision-based reconstruction problems. **Matthew Turk** from U. of California, Santa Barbara, who talked about the diversity and complexity of face tracking and recognition techniques and also about their applicability for designing *Perceptual Hand-free User Interfaces*. **Gary Bradski** from the Intel's OpenCV Research Lab, who talked about the increasingly popular *Open Source Computer Vision Library* which is being developed at Intel with the help of a group of scientists from Russia; quite a few live demos of applying OpenCV for face detection, tracking and recognition were shown.

Regular Papers

This year there were 90 full-size papers submitted to the conference, out of which 57 were selected for inclusion at the conference. The papers have been grouped around the following 8 topics, each presented as a special session:

S1 Image Representation and Retrieval
S2 Tracking, Visual Surveillance, Omnidirectional Cameras
S3 Multiple-camera vision: Matching and Stereo
S4 Pattern Recognition and Document Analysis
S5 Single-camera vision: Structure from Motion, Optical Flow, Calibration
S6 Face Recognition, 3D Head Models, Range Sensing
S7 Vision-based Perceptual User Interfaces, Augmented Reality
S8 Texture Analysis and Segmentation

Because of the large number of submissions and the desire to keep the conference single-tracked, the presentation time has been reduced to 25 minutes. This however did not decrease the level of interaction between the speakers and the audience, but in fact only provided a wider exposure and exchange of the ideas.

This year's special effort was devoted to acknowledging the quality of the contributions. Based on the reviewers' comments and the presentations given at the conference, two awards: for the best paper and for the best student paper – were presented at the conference banquet. In addition, the best twenty papers have been chosen for publishing in a special issue of the Image and Vision Computing journal.

Demonstrations

Authors were also given an opportunity to show their demos at the session held on the second day. The attendees would probably remember well the impressive demos shown by Gerhard Roth, Dmitry Gorodnichy *et al.* from the NRC Computational Video group on robust augmented reality and stereo head tracking for hands-free games and interfaces using web-cameras. Another demo on head tracking using the so-called "between-the-eyes" point was shown by Shinjiro Kawato from ATR labs, Japan. In general, it looked like vision-based perceptual user interfaces was the most popular theme of the present conference.

Banquet & Awards

Participants of all three conferences AI/GI/VI'2002 joined together at the banquet for a great dinner and also for the award presentation ceremony.

The winners of the Best Paper award were **Rui Rodrigues, António Fernandes** from U. do Minho, Portugal, and **Kees van Overveld, Fabian Ernst** from Philips Research, Netherlands with their paper on *Reconstructing Depth from Spatiotemporal Curves*, while the Best Paper Runner-up was given to **Akira Amano, Tsuyoshi Migita** and **Naoki Asada** from Hiroshima City U., Japan for the paper on *Stable Recovery of Shape and Motion from Partially Tracked Feature Points with Fast Nonlinear Optimization*.

The Best Student Paper award was given to **David Bullock** from U. of Guelph, Canada for his paper *Real-Time Tracking for Visual Interface Applications in Cluttered and Occluding Situations*, with the Best Student Paper Runner-up being **Geoffrey Egnal** from U. of Pennsylvania, USA with his paper entitled *A Stereo Confidence Metric Using Single View Imagery*.

CIIPRS was giving two other awards this year: the Distinguished Service Award went to **Denis Laurendeau** from Laval U. and the Young Investigator Award was given to **Dmitry Gorodnichy** from NRC.

John Barron, U. of Western Ontario and John Zellek, U. of Guelph have been selected as the chairs for the next VI conference which will held in Halifax, with the exact days still to be decided. We may thus wish them good luck and see many more attendees next year!

Fathallah Nouboud, Dmitry Gorodnichy

FORTHCOMING IAPR SPONSORED CONFERENCES

Indian Conference on Computer Vision Graphics & Image Processing (ICVGIP) 16-18 December 2002 - Ahmedabad, India

The objective of the biennial conference is to bring together researchers in premier academic institutions and Research & Development laboratories to exchange views and ideas on current research. Selected papers will be published in a special edition of the international journal *Image and Vision Computing*.

Topics of interest include (but are not limited to):

- Stereo Vision
- 3D Shape & Structure Analysis
- Motion & Video Analysis
- Sensors, Imaging model & Simulation
- Pattern Analysis & Classification
- Computational & Statistical Methods
- Satellite Data Analysis & Interpretation
- Image & Video Compression
- Content-Based Image Retrieval
- Document Image Processing

Further information:
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3rd International Conference on Computer Vision Systems (ICVS'03) 1-3 April 2003 - Graz, Austria

Computer Vision is the Science of machines that see. In recent years the domain has sufficiently matured that researchers have begun to build and experiment with systems that observe, model and interact with the world. The goal of the conference is to document the emergence of an engineering science of Computer Vision Systems and to discuss the embedding of complete machine vision systems within the real world

The special theme for ICVS'03 is methods for *Cognitive Vision Ststems* and the conference solicits original, unpublished high quality scientific papers on the design, control and evaluation of vision systems and is particularly interested to receive papers on:

- Architectural Models for Computer Vision Systems
- Design Methods
- Cognitive Models for Interpretation, Integration & Control
- Methods & Metrics for Performance Evaluation

Prior to the submission deadline, authors are asked to connect to the web server and enter the title, author, names and addresses, abstract and keyword; the paper will then be assigned an identification number. Papers must be submitted electronically for review in the conference format as defined on the web server.

Further information:
Markus Vincze vm@infa.tuwien.ac.at
Website: http://dib.joanneum.at/ICVS03

Submission deadline: 15/10/2002
Camera-ready copy: 15/01/2003

7th International Conference on Pattern Recogntion & Information Processing 21-23 May 2003 - Minsk, Belarus

The conference will provide a forum for scientists and engineers to exchange up-to-date technical knowledge and experience and define ways for further development. The meeting will focus on both theory and practice.

Topics of interest will include (but are not limited to):

- Pattern Recognition
- Image Analysis
- Signal Processing
- Systems & Parallel Architectures for Signal & Image Processing
- Knowledge-Based Expert & Decision Support Systems
- Application of PR & Image Analysis
- 3D Image Processing & Modelling

Email: prip@bsu.by
Website: http://www.prip.bsu.by

Submission deadline: 15/12/2002
Acceptance notification: 15/02/2003

IAPR SPONSORED CONFERENCES & WORKSHOPS

Please check updated information on: http://www.iapr.org

2002	Event	Location	Deadlines	Contact
6-9 Aug SSPR2002	Int Workshop on Syntactical & Structural PR & Statistical PR	Ontario Canada	*Deadlines Passed*	amin@cse.unsw.edu.au http://www.ph.tn.tudelft.nl/Organisation/ssspr2002/
11-15 Aug 16'ICPR	16th International Conference on Pattern Recognition	Quebec City Canada	*Deadlines Passed*	icpr2002@gel.ulaval.ca http://www.icpr2002.gel.ulaval.ca
16 Aug PRRS	2nd International Workshop on PR in Remote Sensing	Niagara Falls Canada	*Deadlines Passed*	m.petrou@ee.surrey.ac.uk http://www.ee.surrey.ac.uk/Personal/M.Petrou/2nd.html
18-20 Aug ICDIA	International Conference on Diagnostic Imaging and Analysis	Shanghai China	*Abstract Deadline Passed* Final Manuscript 15/07/2 002	http://www.icdia.fudan.sh.cn
19-21 Aug DAS'02	International Workshop on Document Analysis Systems	Princeton, NJ USA	*Deadlines Passed*	das2002@research.avayalabs.com http://www.research.avayalabs.com/DAS2002
16-18 Sept DAGM 2002	DAGM Symposium for Pattern Recognition	Zurich Switzerland	*Deadlines Passed*	http://dagm02.vision.ee.ethz.ch/authors_info/index.en.html
2-13 Dec CIMPA 2002	School on Soft Computing Approach to PR & IP	Kolkata India	Abstract 01/09/2002 Final Manuscript 010/9/2002	cimpa@isical.ac.in http://www.isical.ac.in/~cimpa2002 ,
11-13 Dec MVA 2002	International Workshop on Machine Vision Applications	Nara Japan	*Abstract Deadline Passed* Final Manuscript 11/10/2002	ki@iis.u-tokyo.ac.jp http://www.cvl.iis.u-tokyo.ac.jp/mva
16-18 Dec ICVGIP'02	Computer Vision, Graphics & Image Processing	Ahmedabad India	*Deadlines Passed*	icvgip@ee.iitb.ac.in http://www.ee.iitb.ac.in/~icvgip
2003	**2003**	**2003**	**2003**	**2003**
1-3 April ICVS'03	3rd International Conference on Computer Vision Systems	Graz Austria	Abstract 15/10/2002 Final Manuscript 15/01/2003	vm@itee.uq.edu.au http://dib.joanneum.at/ICVS03
21-23 May PRIP'2003	7th Int Conference on PR & Information Processing	Minsk Belarus	Abstract 15/12/2002 Final Manuscript 15/02/2003	VKrasnoproshin@mmi.unibel.by http://www.prip.bsu.by
5-7 July MLDM'2003	Int Workshop on Machine Learning and Data Mining in PR	Leipzig Germany	Abstract 10/01/2003 Final Manuscript 01/05/2003	ibaiperner@aol.com http://www.ibai-research.de/MLDM203
19-21 November DGCI'2003	11th Int Conf on Discrete Geometry for Computer Imagery	Naples Italy	Abstract 15/03/2003 Final Manuscript 20/07/2003	dgci@dgci.cib.na.cnr.it http://dgci.cib.na.cnr.it/

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