

BMVA News

The Newsletter of the British Machine Vision Association and
Society for Pattern Recognition

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BMVA News¹ is published every three months. Contributions on any activity related to machine vision or pattern recognition are eagerly sought. These could include reports on technical activities such as conferences, workshops or other meetings. Items of timely or topical interest are also particularly welcome; these might include details of funding initiatives, programmatic reports from ongoing projects and standards activities. Items for the next edition should reach the editor by 1 June 2004.

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Editorial: *A Cacophony of Conferences?*

With the emergence of the IEE Visual Information Engineering series of conferences, we appear to have an exemplary collection of venues for airing our papers. Not only is there BMVC, and now VIE, but there are other excellent venues such as ICPR, ECCV and ICCV – not to mention mechatronics conferences such as Mechatronics and ICOM, which do include vision orientated papers. There is also a plethora of national conferences on computer vision, which we can attend in other countries, and a range of specialist conferences and workshops in such areas as transport and medical imaging. In spite of all these, a good number of my colleagues are still able to complain. The reason is that, nationally at least, the large conferences seem able to

¹The British Machine Vision Association and Society for Pattern Recognition is a Company limited by guarantee, No. 2543446, registered in England and Wales. Registered Office: Granta Lodge, 71 Graham Road, Malvern, WR14 2JS. The Association is a non-profit-making body and is registered as charity No. 1002307.

squeeze out minority interests, which ought to be covered but yet are not catered for sufficiently.

In principle this is a soluble problem. It ought to be possible to write down all the elements that need to be catered for, and then include them in appropriate meetings. In our area, the relevant elements are (and this is intended to be illustrative rather than a complete list): CV, MV, IP, IA, SP, PR, VR, AR, video, graphics, biological vision, crime, surveillance, medical imaging, inspection, mechatronics. Next, we need to send out a questionnaire asking all workers which elements are most important to *them*, and draw up a table of co-interests, which we can then analyse, PCA-style, to find the eigenvectors, taking due note of the ‘noisy’ entries. While totally ignoring the latter may seem like leading straight back to the very problems I have alluded to above, I fancy that most people would be better served by the optimised ‘eigen-conferences’ that would emerge.

Of course, things aren’t that easy. Some conferences such as BMVC are enormously concerned with high quality, and to this end demand full-paper, anonymous reviewing by several independent referees (indeed, BMVC is even carrying out research into the best – most robust – ways of combining the judgements of the referees). Some other conferences are particularly concerned to encapsulate a wide range of interests, and to stimulate discussion, and are thus less concerned with provable degrees of quality, maybe seeing it as the role of journals to guarantee this. This minute I am not taking sides on this issue, but rather pointing out the difficulty of factoring in quality information as well as subject matter information in my PCA-style analysis.

However, even supposing all this could be engineered, it would be exceptionally difficult to twist conference organisers’ arms to adjust the coverage of their particular conferences. And don’t forget it is these very organisers who are the people whose enthusiasm will take each conference to success – against all the difficulties that can arise. Here one must also take into account the possibilities of clashes of dates, and financial failure – even, I unfortunately have to say, the possibility of terrorism.

So my eigenworld is unlikely to happen. Instead, the eigenstates are rehearsed mentally in an intuitive way by enthusiasts who feel they somehow ought to be promoting new movements, and thus filling the cracks between the major conference subjects. Sometimes (as for MIUA) such movements take off and survive in their own right. On other occasions they may only fulfil a temporary function, where for example, a major conference has been postponed for a year or so, and a niche need can quickly be identified and fulfilled.

Maybe is its turn this will affect what the major conferences feel they have to put on. Such is the rich fabric of the world in which we live. Such indeed is the need in a rapidly changing subject area, where the analogue camera is so rapidly giving away to the digital camera that I couldn’t get the (4 Megapixel) one I wanted for Christmas as it was already sold out.

Professor Roy Davies
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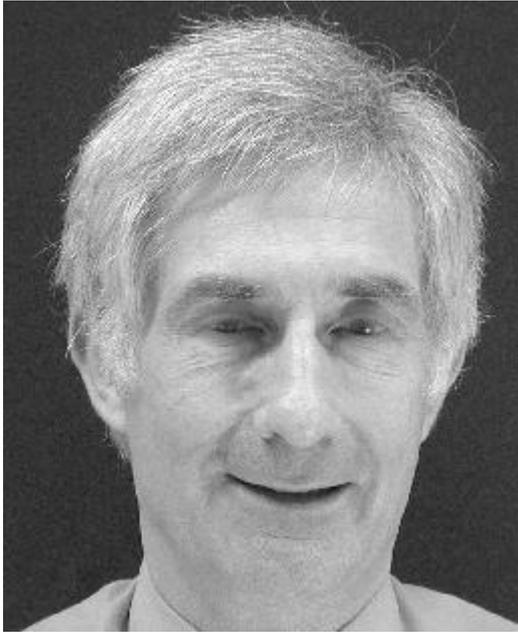
Vision, Video, and Graphics Network

The Vision, Video, and Graphics network is due to start in September. The purpose of the VVG network is to fund research placements that promote the ‘convergence’ area. A typical placement would see a Graphics PhD spending 3 months in a Vision, lab. to study recovery of lighting so that graphics objects can be inserted and shaded in real video. But this is just an example, and is not intended to be prescriptive. Anyone can apply to the VVG network for funding a placement. The exact details of the mechanism are yet to be decided, but the general shape is clear. Anyone who wants funding should complete a case for support, and submit to one of the review chairs who will find reviewers for the proposal. The steering committee will meet at some appointed time and decide which proposals can be funded that time around. If this appears reminiscent of EPSRC responsive-mode proposals, it is because that is our model.

The steering committee and reviewers are to be distinct sets of people. The whole process is made as light as possible, given that each placement is worth a few thousand pounds: we are keen to minimise administrative overheads for all of us. The details that need to be cleared include the exact nature of the forms, and a few other matters such as a standard web site.

The VVG network will make a formal announcement as soon as possible, for we hope to get placements started as early as September. In the meantime you can volunteer your reviewing services, or get further details from Peter Hall.

Peter Hall
University of Bath
pmh@cs.bath.ac.uk



Professor Chris Taylor OBE: BMVA Distinguished Fellow 2003

Chris Taylor has been involved in Image Analysis and Computer Vision since beginning his PhD in 1967. He originally came to Manchester to do a Degree in Physics in 1964, and has remained ever since.

From the beginning he was involved in developing novel hardware and software for Image Analysis. His PhD, entitled "General Methods of Analysing Biomedical Images", involved building image digitisation equipment and writing segmentation software on a DEC PDP8.

On completing his PhD he became an RA, and soon a Lecturer in the Department of Medical Biophysics. Since at the time there was little commercial equipment available, he was involved in developing integrated software and hardware systems for image acquisition and analysis. With colleagues he designed and built the Magiscan 1 and 2, which used custom built microprocessors to achieve extremely fast processing speeds – it was not until the mid-90s that general-purpose computers began to achieve similar speeds. The Magiscans formed an important commercial product for Joyce-Loebl Ltd, an industrial collaborator.

In 1977 he became Manager of the newly formed Wolfson Image Analysis Unit, which aimed to develop sophisticated image analysis applications for the Magiscan machines. The Unit developed pioneering chromosome analysis systems, an asbestos counting system that was adopted by the Health and Safety

Executive as a standard and a system for inspecting brake assemblies which remained in continuous use on a VW production line for over 10 years.

In 1990 he was awarded a chair, becoming a Professor of Medical Biophysics. His interests turned to using trained statistical models to interpret images. His group's pioneering work on statistical models of shape and appearance has proved very influential. Papers about the work have won numerous prizes and the approaches have been adopted internationally. Chris has been keen to ensure that computer vision is used to solve real problems, has been involved in numerous collaborations with industry, and has formed several spin-off companies including Kestra Ltd (industrial inspection), imorphics Ltd (medical image analysis) and Genemation Ltd (facial modelling).

As well as his research work, he has been very active in promoting the subject of Computer Vision. He has been active on many committees and associations involved in healthcare and computer vision. In 1988 he became Chair of the British Pattern Recognition Association, and was instrumental in the merging of that organisation with the Alvey Vision Club to form the BMVA in 1990. Chris was the first Chairman of the BMVA, and has been closely involved ever since. He remains the Company Secretary.

In 2000 he was awarded the OBE for services to health and his work on the Foresight committees. He has recently become the Head of the School of Computer Science at the University of Manchester.

Chris has been awarded the BMVA Distinguished Fellow 2003: the formal presentation will take place at BMVC 2004.

Dr Tim Cootes
University of Manchester
email: t.cootes@man.ac.uk

EPSRC Summer School – Reminder

The EPSRC Summer School takes place at the University of Surrey, 21–25 June 2004. The Summer School is filling up fast and there are only positions for 50. The Summer School is free to EPSRC students.

Professor Maria Petrou
University of Surrey
email: m.petrou@eim.surrey.ac.uk

In Memoriam – Professor Azriel Rosenfeld

As you may have heard by now, Professor Azriel Rosenfeld passed away on Sunday 22 February, at the age of 73.

Azriel Rosenfeld was a truly international researcher – his work always aware of what was happening throughout the world, his influence always global. His research was fundamental and, particularly before the web age, his scholarly bibliographies allowed vision researchers in all parts of the world to contribute to the sense of community in this still-new field. Work reported in early meetings in Britain was often made known to international researchers because of its inclusion in the bibliography. That the moon never sets on vision research is in no small part due to his scholarship, inspiration and leadership. Throughout Europe and the world his passing will be mourned.

A condolences page in memoriam of Professor Rosenfeld has been set up on the IAPR web site <http://www.iapr.org/> with the possibility for each individual or society to add personal condolences.

Dr Andrew Fitzgibbon
Tim Cootes
On behalf of the BMVA

Contributions to BMVA News

I am happy to announce that the BMVA Committee has agreed that small prizes should be made for student contributions to the newsletter. In the first instance these should be submitted to the Editor, and should be in line with the general content of BMVA News. The most obvious types of contribution are:

- reports on meetings and conferences
- letters on important topics, ranging from the state of the subject to refereeing procedures
- discoveries (by yourself or others)
- crosswords, puzzles, ...
- cartoons, sketches, pictures, photographs, ...

Any student should take the precaution of reminding me about this ruling, as I get exceptionally busy when putting an issue together!

Note: the ruling does not cover reports on meetings for which a bursary has already been provided by the

BMVA, as it is a condition of such bursaries that an article be written.

Comment to supervisors: The Committee feels that it is good for students to get practice in writing and exposure to the outside world: both represent time well spent and serve to enhance training.

Reminder about BMVA News publication dates: BMVA News is published four times a year, and normally goes to press at the end of March, June, September, and December. Copy is generally required two weeks before these dates, or slightly later if the column space is pre-booked.

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The Sullivan Doctoral Thesis Prize 2004

The BMVA Executive Committee seeks nominations for the Sullivan Doctoral thesis prize. The 2004 prize will be awarded to the best nominated thesis which was submitted and examined during the calendar year 2003. Thesis examiners and supervisors may act as nominators, but the committee would like to receive an accompanying report and endorsement of the nomination from the thesis external examiner.

Please send any nominations to the Secretary of the Association, Dr Dave Marshall by 30 April 2004. The theses nominated should be made available through a web page. In addition, two hard copies (not necessarily bound) should be sent to Dr David Marshall, Department of Computer Science, Cardiff University, Queen's Buildings, Newport Road, Cardiff, CF24 3XF. Submissions should be accompanied by a completed report form:

<http://www.bmva.ac.uk/admin/prizeform.html>

For further information about the Sullivan Thesis Prize, please contact the BMVA secretary and/or see: <http://www.bmva.ac.uk/admin/sullivan.html>

Dr Dave Marshall
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British Machine Vision Conference Kingston University 7-9 September 2004

The British Computer Vision Conference (BMVC2004) will be hosted by the Digital Imaging Research Centre of Kingston University on 7-9 September in Kingston-upon-Thames. This three day single-track conference includes poster session and industrial day. The conference is preceded by the tutorial day on 6 September. Invited speakers include Matthew Brand of the MIT Media Lab and Pascal Fua of EPFL.

The Conference Committee solicits full-length high-quality papers in image processing and computer vision on (but not limited to) the following conference topics.

- image features and coding
- multi-view and stereo vision
- grouping and segmentation
- texture, shading and colour
- object recognition
- real-time and active vision
- shape and surface geometry
- medical and industrial applications.

All papers will be blind-refereed on their originality, presentation and quality of evaluation. Details about how to submit papers and register for the conference can be found at <http://bmvk.king.ac.uk>.



Important dates

- Deadline for submission: 16 April 2004
- Notification of acceptance: 21 June 2004
- Deadline for camera-ready copy: 16 July 2004
- Conference dates: 7-9 September 2004.

The proceedings will be available to delegates at the conference in hard copy and on CD and a selection of the best papers will be published separately in a special issue of the journal Image and Vision Computing.



The self-contained and picturesque campus of Kingston Hill (above) provides the residential and conference accommodation. The conference dinner will be held in the Garden Room of Henry the Eighth's nearby Hampton Court Palace (bring the wives!) where delegates can savour good food, regal splendour and beautiful gardens.



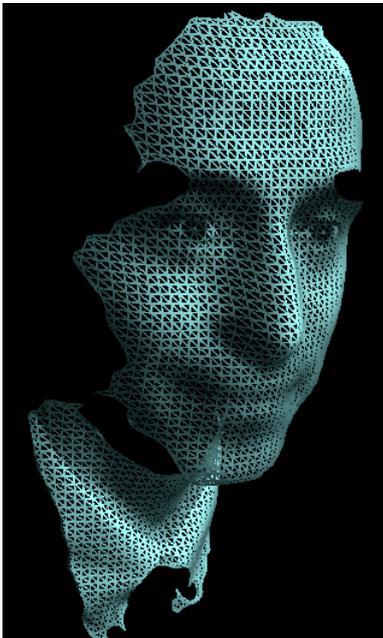
Dr Graeme A Jones
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IPOT 2004

As in previous years, BMVA enjoyed a complimentary stand at the IPOT and Machine Vision exhibition held annually at the NEC in February. This year the participants representing the BMVA were:

- Dr Andrew Davison and Dr Nick Molton, University of Oxford. Real-time simultaneous localisation and mapping.
- Miss Roberta Piroddi (with Prof. Maria Petrou), University of Surrey. Reverse engineering the human vision system: next generation artificial vision systems.
- Mr Tom Heseltine (with Prof. Jim Austin), York University. 3D face recognition system.
- Dr Stephen Marshall, University of Strathclyde. Logical image processing.

The show was visited by more people than ever before, over 6300! We were lucky to be assigned a larger stand this year and the extra space was certainly used well. Tom Heseltine's demo certainly proved popular especially as he was promising personalised 3D face image screensavers to any volunteers. As you can imagine there were many vain enough to want this indispensable accessory. You can see mine right on this page!



This is what Tom Heseltine had to say about the show: "The IPOT show had some very interesting and advanced technology on display and although not all directly relevant to our field, did provide insights into other potential applications we had not previously considered. As well as increasing the size of our 3D face database, it certainly generated a great deal of interest in our 3D Face Recognition system and the 3D Face Screensavers we were providing have been very popular. On another point, the event also gave us the opportunity to review and compare a range of camera systems and may have already sparked off new relationships and lines of development in the University of York."

Dr Marshall said: "...there was so much image processing going on. I bumped into two former PhD students, there on behalf of their company. The two people had never met so it made me feel old...".

Volunteers who wish to demonstrate their work at IPOT05 can reserve their place right now, we already have one of 4 places booked. The BMVA will pay for your reasonable travelling expenses to the exhibition. For further information please contact me.

Dr Majid Mirmehdi
Bristol University
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Medical Image Understanding and Analysis 2004

Imperial College London, 23–24 September

This is the eighth annual technical meeting, which follows the successful series begun in Oxford in 1997. The meetings are designed to provide a UK forum for the dissemination and discussion of research in medical image understanding and analysis, an expanding area in which significant advances are currently being made. It is an area notable for the range of research communities involved, and the meeting aims to encourage the growth and raise the profile of this multi-disciplinary field by bringing together the various communities.

Important dates

Deadline for receipt of submissions: 28 May 2004

Notification of acceptance: 23 July 2004

Meeting: 23 and 24 September 2004.

The conference website is at: <http://www.miua.org.uk>

Queries about MIUA 2004 may be sent to myself.

Dr Daniel Rueckert
Imperial College London
email: d.rueckert@imperial.ac.uk

Review of SIGGRAPH 2003

SIGGRAPH 2003 was ACM's 30th annual conference on computer graphics and interactive techniques. The conference was held over 5 days, 27–31 July, and was attended by over 24,000 people from 77 countries. It is by far the largest, and arguably most prestigious, graphics conference in the world, and it is not uncommon for companies to hold back the release of a product in order to announce it at SIGGRAPH.

This year SIGGRAPH was held in San Diego, USA (it is always held in the United States). The enormous conference centre is based in the historic Gaslamp District. This area, once the domain of drug dealers and other dubious characters, has been completely renovated and – unlike nearby LA and a lot of other American cities – has a really metropolitan feel to it. The area is full of restaurants, cafes and bars, and there are great views over the bay. Everywhere I needed to get to, including the hotel and the conference centre, was within walking distance – most uncommon in America!

Because of the sheer size of the conference, the natural crossover between graphics and computer vision, and the committee's efforts to increase the diversity of the conference, more and more Vision papers and courses are appearing at SIGGRAPH. I was presenting a short paper 'Sketch', the subject matter of which was very well suited to this conference being in an area traditionally dealt with by the Graphics Community but dealing with a problem more often encountered in the Vision Community.

The SIGGRAPH short paper Sketches program is designed to provide a presentation forum for the latest, cutting-edge work, the length of the text required for submission is shorter, and the submission deadline much closer to the conference. The Presenters are expected to give a 20-minute talk followed by 10 minutes for a question and answer session.

The much more formal, traditional papers program produces some of the highest calibre work in the field, but the talks never seem as fresh and interesting as those in the Sketches program. Although SIGGRAPH is a very large conference, the number of accepted papers is low (81). This has a number of consequences: The quality of the papers is very high, for the most part they don't run in parallel sessions, the rooms they are presented in are enormous but as a result the presentations are very well polished. The main papers room could hold well over a thousand people and was frequently packed to capacity. This meant that whilst the quality of the work and presentation was good, you were often sat at the back of a huge room watching an image of the speaker on a screen.

Despite the main papers generally not being run in parallel, there is so much else to see at SIGGRAPH that time management is still a major problem. There are all the Sketches, lots of fascinating courses, plus the Emerging Technologies, Exhibition Floor and Art Galleries. I found the best way to deal with this was to pick a couple of the most relevant half-day courses to attend, choose one or two papers each day that interested me, and spend the rest of my time going round as many Sketches as possible with one afternoon off to see the other exhibits.

One valuable and frequently amusing aid in deciding what papers to see is the Fast-Forward Papers Preview. Held on the first evening, each presenter has one minute to present a condensed version of their work! Their slides are automatically advanced, so no cheating is possible. All 81 papers were covered in just over 90 minutes this way. Some of the methods used were highly entertaining and apart from some spectacular demos there were also some comic fast-talking sales pitches and even poetry. Although light-hearted, this

session really allows you to get a feel for which presentations you would most like to attend.

The keynote speech, entitled “Modelling the Cosmos: The Shape of the Universe”, was given by Anthony Lasenby, Professor of Astrophysics and Cosmology at Cambridge University. Using the principles of Geometric Algebra, Lasenby has proposed a new geometric model of the universe that has surprising implications for cosmology. This was a very interesting talk, that was marred slightly by first having to sit through an hour of talks by the committee, which weren’t mentioned in the programme.

There was so much content during the week that it is hard to say just which talks I found most interesting and most relevant – not always the same thing. The session on Computation on GPUs was very useful, and whilst not having a direct impact on my research, will definitely have an indirect one in terms of hopefully dramatically speeding up some of the implementations of my algorithms. The sessions on Parameterisation and on Meshes were more directly relevant and I found them very interesting. In the Sketches programme I thought that the Video Techniques and Architectural Reconstruction sessions were both interesting, and there were two Courses on Structure from Motion (my area) that were also useful.

Like all the presentation rooms for SIGGRAPH the room in which I was due to give my presentation had everything I could possibly need in the way of equipment. Something that works very well is that every presentation room has a PC that is networked with the central presentation server. At any time before your talk you can upload your presentation onto the server in a specially designated room full of useful technicians, and then, prior to your talk, your presentation is automatically downloaded onto the PC in your room. The PC’s are all identically configured, so if everything works on the one where you uploaded it (and in your rehearsal), then it will work on the day. Not only does this remove the worry of any compatibility issues, but it stops the usual faffing around with laptops between talks.

My presentation was on the “Automated Meshing of Sparse 3D Point Clouds”. Our method uses the Simulated Annealing algorithm to mesh a very sparsely populated cloud of 3D points. The presentation was in the ‘Surface Reconstruction’ Sketch session and was well attended. With the possible exception of a small glitch with the wireless mouse everything went smoothly, and subsequent feedback and the number of interested (and relevant) questions led me to believe that it had been well received. After the session was over a number of people approached me to talk about my work

in more detail, and I hope to pursue a couple of these connections further.

All in all I consider my trip to SIGGRAPH to have been a great success; my talk went well, I made some useful contacts, some of the other talks have given me some new ideas for my own work and I had a really enjoyable time. I would thoroughly recommend SIGGRAPH 2004 to anyone conducting research in the Vision or Graphics area – it has a huge scope of high quality work, and even a great social schedule for the evenings.

Finally I would like to thank the Royal Academy of Engineering and the British Machine Vision Association for contributing towards my costs and thus affording me a great opportunity.

Oli Cooper
Bristol University
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Review of IST 2003

Cosponsored by the Society for Imaging Science and Technology (IS&T) and the International Society for Optical Engineering (SPIE), the Electronic Imaging Symposium 2004, which was held in San Jose (USA) at the end of January, drew over 1,200 attendees from all over the world.

Amongst the different conference programs on *2D and 3D Displays and Holography*, *Image and Document Visualisation*, *Image Processing*, *Multimedia processing and Applications*, *Visual Communication*, *Optical Security and Sensors*, *Capture and Machine Vision*, I would like to highlight the conferences “Image Processing: Algorithms and Systems III” and “Machine Vision Applications in Industrial Inspection XII” where I had the opportunity to present two papers – thanks to the invaluable support of the BMVA.

Twenty short courses lectures in the areas of “Digital Systems and Engineering”, “Data, Internet and Multimedia” and “Capture and Display”, poster sessions, exhibition and a variety of different social events were part of the conference program to promote participation, networking and interchange of research ideas in a conference that I would recommend to any researcher actively involved on Image Processing and other related topics in the field of Electronic Imaging.

Maite Trujillo
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The REVEAL project

REVEAL is an ambitious new collaborative project between Police, Academia and Industry – the universities involved being Kingston and Surrey, with Sira Ltd being an independent Partner. The name stands for “Recovering Evidence from Video ...”.

It is impossible to give full coverage of this complex project in a limited space.² However, the main objectives can be listed as:

- To develop a *Visual Evidence Thesaurus* capturing the shared specialist language of surveillance experts annotating video streams.
- To develop a rich *Surveillance Meta-data Model* for describing extracted content of CCTV imagery.
- To develop crowd models which can capture the global spatio-temporal motion characteristics of multi-directional people flows.
- To develop methods of integrating the linguistic structure (the *Visual Evidence Thesaurus*) and the visual content (the *Surveillance Meta-Data Model*).

One of the major goals will be to validate the effectiveness of the fusion process by automatically generating a gallery of mug-shots and numberplates for all moving objects, as indicated in the figure.



Dr Graeme A. Jones
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BMVA Distinguished Fellow 2004

The BMVA Executive Committee seeks nominations for the Distinguished Fellow 2004 award. This prestigious award is given to one person only each year in recognition to his/her services to the British Machine Vision community. The nominees must be distinguished researchers, based in the UK, who have contributed significantly to the field of research and the reputation of the British Machine Vision Community both nationally and internationally. Nominations, with a few lines of rationale, should be sent to Dr Tim Cootes by 30 April 2004.

Dr Tim Cootes
Manchester University
t.cootes@man.ac.uk

2nd European Machine Vision Business Conference

The 2nd European Machine Vision Business Conference will take place 21–22 May 2004.

Organised by the European Machine Vision Association (EMVA), this unique networking event unites business leaders and technical experts within the machine vision industry from Europe and around the world. Details may be found on the conference website:
<http://www.emva.org/>

Questions regarding the conference or the EMVA can be tendered to +49 (0)696 6031 466/70. For registration and accommodation please contact Ms Gnuschke, Stuttgart Convention Bureau, at +49 (0)711 2027 699.

Guided tours and special offers have been organised for discovering this fascinating city.

Patrick Schwarzkopf/Dorothee Lüttmann
EMVA
email: schwarzkopf@emva.org

²In this case I have to admit to asserting my rights and hacking down the original 3-page document to fit available column-space! For the full story, appeal to Dr Graeme Jones at Kingston. – Ed.

VIE 2005

The IEE International Conference on Visual Information Engineering (VIE 2005)
Convergence in Graphics and Vision³
4–6 April 2005, University of Glasgow, Glasgow, UK.
Organised by the IEE Visual Information Engineering Professional Network

Call for papers

VIE 2005 is the second in a new series of conferences addressing the converging areas that together make the field of visual information engineering. The conference brings together researchers, developers, creators, educators, and practitioners in image processing, machine vision, computer graphics, virtual and augmented environments, and visual communications to share their latest achievements and explore future directions and synergies in these exciting areas.

You now have the opportunity to take part in this exciting conference and have your paper published by the IEE.

Submissions are invited on topics including, but not limited to:

- Visual Communication
- Image Interpretation
- Image and Video Analysis
- Storage, Retrieval and Multimedia
- Computer Graphics
- Virtual and Augmented Environments
- Architectures and Implementation
- Applications

In addition to traditional research papers, the committee also welcomes submissions covering practical systems, commercial solutions and business topics related to visual information engineering, presenting well evaluated applications and studies which clearly show thorough understanding of the underlying principles.

To submit a paper or for further information, visit our website: <http://conferences.iee.org.uk/VIE2005>

Alternatively, contact the Event Organiser at the address below.

This event has been supported and developed by the Multimedia Communications and Visual Information Engineering Professional Networks and is supported by VIE 2005. For more information about the Professional

Networks, please visit www.iee.org/OnComms/Sector.

VIE 2005 Event Organiser
IEE Event Services
Michael Faraday House, Six Hills Way, Stevenage,
Hertfordshire, SG1 2AY, UK
email: nbunn@iee.org.uk

3DPVT 2004

Call for papers

The second International Symposium on 3DPTV (3D Data Processing, Visualisation, and Transmission) will be held on 6–9 September 2004 in the city of Thessaloniki, Greece.

The goal of this meeting is to present and discuss new research ideas and results related to the capture, representation, compact storage, transmission, processing, editing, optimisation and visualisation of 3D data. These topics span a number of research fields from applied mathematics, computer science, and engineering: computer vision, computer graphics, geometric modelling, signal and image processing, bioinformatics, and statistics.

3DPVT invites papers in Computer Vision, Graphics or their interaction. It addresses both theoretical approaches and applications. The web site <http://www.umiacs.umd.edu/conferences/3dpvt2004/> contains more information.

Important dates

- Abstracts: 12 April
- Full papers: 16 April
- Reviews due: 15 May
- Author notification: 25 May
- Camera-ready papers: 15 June
- Tutorials: 6 September
- Symposium: 7–9 September

³Note the emphasis on “convergence”, which represents the new direction of the IEE vision conferences. – Ed.

4th Indian Conference on Computer Vision, Graphics & Image Processing (ICVGIP 2004)

16–18 December 2004, Kolkata.

Organised by Indian Unit for Pattern Recognition and Artificial Intelligence and Indian Statistical Institute.

Call for papers

Objective

The Indian Conference on Computer Vision, Graphics and Image Processing (ICVGIP) is being organised every two years since 1995 by premier academic institutions and Research and Development laboratories in India. The objective of the conference is to act as a forum to exchange ideas and to bring together researchers in the academic institutions and R&D Laboratories working in the fields of Computer Vision, Graphics and Image Processing.

Important dates

Full paper submission: 31 May 2004

Acceptance notification: 31 July 2004

Camera-ready submission: 31 August 2004

Conference website: www.cse.iitb.ac.in/icvgip

Conference Secretariat: icvgip04@isical.ac.in

ICOM 2005

The International Conference on Mechatronics 2005 (ICOM 2005) will be held at Loughborough University, 23–24 June 2005.

Introduction

Mechatronics is a design philosophy integrating a range of appropriate technologies to produce enhanced products, processes and systems. The advent of low cost IT systems has led to ever further integration of embedded control and knowledge systems which may allow devices or machines to communicate with each other in an intelligent manner. There is a vibrant international mechatronics community working at the cutting edge of research and realisation of intelligent machines and conferences are held around the world. The Institute of Measurement & Control has established a series of prestige international events in the UK. The events annually alternate Mechatronics and Multibody Dynamics thus providing biennial events for each theme

which impact so strongly on advanced dynamical systems. ICOM 2005 is the second of the Mechatronics strands and builds upon the highly successful 2003 event.

Important dates

- Submission of Extended Abstracts: 31 July 2004
- Acceptance of Papers: September 2004
- Submission of Full Manuscripts: December 2004
- Final Programme: March 2005
- Conference: 23–24 June 2005.

Scope

Themes will be drawn from, but not limited to, the following:

- Design of Mechatronic Systems – with special reference to technology integration
- Modelling and Simulation of Mechatronic Systems (including multi-body systems)
- Enabling Technologies (e.g. sensors, actuators, micromechanics)
- Applications (e.g. mechatronic products, processes and systems, intelligent machines).

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ICCV 2003 Presentations Archive

The following website contains of most of the presentations from ICCV 2003:

<http://www.robots.ox.ac.uk/~awf/iccv03videos>

They are mirrored in the US on Microsoft's streaming media site.

We hope this proves a useful resource for the community. A good use we have is to centre a reading group around a video, where you watch the presentation for 20 minutes, and then discuss the paper.

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Further Information on Book on Morphology

Pierre Soille. *Morphological Image Analysis: Principles and Applications*. 2nd edition. Springer-Verlag, Heidelberg 2003. ISBN 3-540-42988-3.

Following the success of the first edition, recent developments in the field of morphological image analysis called for an extended second edition. The text has been fully revised with the goal of improving its clarity while introducing new concepts of interest to real image analysis applications.

The book has grown by 25%, leading to a total of 391 pages (including 39 additional figures, 3 new tables, 93 extra bibliographical references, as well as a supplementary index). This increase has been distributed more or less evenly across all chapters. More precisely, beyond a new chapter devoted to texture analysis, main additions include: processing of multichannel images, ordering relations on image partitions, connected operators and levellings, homotopy for grey tone images, translation-invariant implementations of erosions and dilations by line segments, reinforced emphasis on rank-based morphological operators, grey tone hit-or-miss, order independent homotopic thinnings and anchored skeletons, self-dual geodesic transformation and reconstruction, area based self-dual filters, anti-centre, and new scientific and industrial applications.

This self-contained book should be of value to engineers, scientists, and other practitioners interested in the analysis and processing of digital images.

The above recently received details show how the second edition has been enhanced since the first edition, reviewed in the December 2002 issue of BMVA News.

For more information see:
<http://ams.jrc.it/soille/book2nd>

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Book for Review

The following book is still on offer for review. At first glance it seems to me an excellent volume and a welcome addition for *someone's* bookshelf – both readable and a valuable reference. As always, it will be sent out on a first come–first served basis, so contact me immediately if you would like to review it. (Note that I have developed the rule of a free examination for 3 weeks, followed by immediate return or a commitment at *that* stage to write a review within a further 3 months.)

F Mokhtarian and M Bober. *Curvature Scale Space Representation: Theory, Applications & MPEG-7 Standardisation*. Kluwer Academic, 2003, ISBN: 1-4020-1233-0.

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