BMVA News

BMVA News[1] 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 30 November 2001.

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[1] The 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.

Editorial

By their nature, academic activities should not be seasonal, as they involve a progression – grant application, research, publication and in some cases industrial implementation. However, there is a distinctly seasonal aspect in that national and international conferences take place primarily over the summer months – and this means that calls for papers and submission deadlines tend to fall in the winter months, around this time of year. In machine vision there used to be two major national conferences – the *British Machine Vision Conference* in September, and the IEE *Image Processing and its Applications* Conference which was usually biennial and took place in July. The IPA conference was highly successful in drawing in many international speakers, and was useful in that it nicely complemented the BMVA conferences: it included topics such as image coding, image acquisition and illumination, numerous aspects of inspection, and indeed its scope was very wide. On the other hand, BMVC aimed to be 'leading edge' on 3D vision, motion studies, modelling and theory, and above all aimed to maintain high standards via blind refereeing and accepting only limited numbers of papers which had to be slotted into single track sessions.

With this contrast, it was clear to many that there was room for both conferences: in fact, both were necessary to maintain a balance for the good of the UK vision community. Now this balance has been broken, as the IEE has opted out of the IPA

series (and also out of a possible successor series that might have been called 'Visual Information Engineering'). Aside from the disappointments felt by all who have been involved in organising the IPA conferences (myself included) there is a distinct need to be met for a successor to the series. But what are the reasons for the problem, and how has the BMVC remained 'bomb-proof' in recent times? The reason lies in the dedication of academics who organise these conferences, and it appears that the IEE and like organisations can no longer match this productivity on a real cost basis. Perhaps we should not be surprised by this. On the other hand, BMVA cannot sit around leaving half the vision community uncatered for. On the contrary, it has been, and is, actively trying to see what it can do to help fill the gap. It remains to be seen whether the encouragement it has given to possible organisers is sufficient and will result in more than a one-off conference on the IPA model, and whether the IEE will have a part to play in it.

I am optimistic about this, but time is marching on. It was 1999 when the last IPA took place, and some of us have papers that are running out of steam and should have gone to a successor conference already. Let's hope that the problem will be solved in the near future. I'm hoping for something positive to report in BMVA News – and *soon* please!

Professor Roy Davies
Editor, BMVA News
email: `e.r.davies@rhul.ac.uk`

Mathematical Methods in Computer Vision

On 23 January 2002 a 1-day Technical Meeting will be held at the Royal Statistical Society, London.[2]

From wavelets to support vector machines, and other exotic beasts like the trace transform, from statistical methods to projective geometry, Mathematical methods for vision have been becoming more and more main stream research, replacing heuristic algorithms and simplistic approaches.

This one day meeting is aimed to review some of the most popular of such methods, as applied to computer vision/image processing problems. The

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[2]Note the change of date: this meeting was originally intended to take place on 16 January 2002 – Ed.

papers presented will be of a tutorial nature, not necessarily presenting new work, but certainly presenting work in the context of image processing and computer vision, with emphasis on making the approaches transparent to the audience and addressing the practical aspects of the approach discussed.

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

BMVA participation in IPOT

Every year, the Image Processing and Optical Technology (IPOT) exhibition takes place in the National Exhibition Centre in Birmingham. This year it will be on 13–14 February 2002. This exhibition brings together manufacturers and potential users of image processing and vision systems.

BMVA supports this event and all our members have a ticket for free entry distributed with the December issue of the newsletter.

BMVA also has a stand in IPOT and the opportunity is given to our members to demonstrate their work there. BMVA covers the travel expenses for participation to IPOT, as well as some modest expenses for transporting equipment there.

If you are interested in showing your work at IPOT, please contact Dr Majid Mirmehdi (majid@compsci.bristol.ac.uk), the publicity officer of BMVA to submit your demo. Up to four demos will be accepted, which will run for at least half a day each.

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

BMVC 2001 Presentation Prize

BMVC was held at the University of Manchester in September, and was attended by about 140 delegates. There were 36 oral presentations, and to encourage high quality the audience was given voting slips and asked to mark each talk. There were many talks which were highly ranked, but two stood out.

The highest ranking talk, and thus the winner of the BMVC 2001 Presentation Prize was

"Robust Registration of 2D and 3D Point Sets" by Andrew Fitzgibbon (University of Oxford).

The runner up was the presentation

"An Information Theoretic Approach to Statistical Shape Modelling" by Rhodri Davis (University of Manchester).

Thanks to all the presenters for making it such an interesting technical programme.

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

New demonstration prize at BMVC 2001

This year a special prize was awarded by UKIVA for the best demonstration. This prize was won by Dr John Oakley of UMIST for a system that corrects video for atmospheric effects. As reported in the last issue of BMVA News, the system is designed primarily for security applications and was shown correcting video images of a very foggy Manchester airport. The result was a transformation from a murky image to one with normal colours and contrast.

The accompanying picture shows Don Braggins (UKIVA) presenting the prize to John Oakley, who appears justifiably pleased with his achievement!

> Professor Roy Davies
> Editor, BMVA News
> email: `e.r.davies@rhul.ac.uk`

BMVA Chapters: What are they?

Well, we all think we know what a chapter is, until we get a report from a still green student who entertains the grandiose idea that his first report is heading for a book, and starts using the term chapter for sections sometimes no longer than a page! The worse is when they also put the copyright sign on the title page in case somebody steals the ideas! Hmmm ... we have all passed through a route of similar sort ...

However, here it comes, to confuse you more: Chapters in BMVA language are sections of the organisation referring to people who work in some geographically distinct regions. BMVA has two chapters: the Scottish Chapter and the Northern England Chapter. And while we all know where Scotland is, Northern England is vaguely located wherever you think! And I say vaguely, because what it means is that, really, it is up to you to decide whether you fall in that region or not − all for your own convenience. The BMVA Chapters were established to allow people from those regions to have some local activity under the auspices of BMVA. In your membership application form you may note that you wish to belong to either of these chapters. Then BMVA will transfer some funds to the local chapter representatives, in proportion to the membership, so that local meetings may be organised.

It should be clarified that any member is welcome to organise a one-day technical meeting in a locality away from London, along the lines the technical meetings in London are organised, whether a Chapter is to be involved or not: BMVA will cover the expenses, but all the administrative work will have to be done by the local organiser because the BMVA technical meetings organiser (Dr Daniel Alexander, UCL) is London based. And while you are contemplating that, if you want to organise a meeting in London (or anywhere else), do drop a line to Daniel (Daniel.Alexander@cs.ucl.ac.uk), and do come to our next meeting on 23 January, which is planned as a tutorial on Mathematical methods in Computer Vision.

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

European Conference on Image and Video Retrieval

ADVANCED CALL FOR PAPERS

CIVR 2002 - THE CHALLENGE OF IMAGE AND VIDEO RETRIEVAL

European Conference on Image and Video Retrieval

18–19 July 2002, London, UK

IMPORTANT DATES:

4 March 2002: Submission of full paper
10 April 2002: Notification of acceptance
1 May 2002: Camera-ready full paper

GENERAL INFORMATION

Image and video storage and retrieval continues to be one of the most exciting and fastest-growing research areas in the field of multimedia technology. However, opportunities within the UK for the exchange of ideas between different groups of researchers, and between researchers and potential users of image retrieval systems, are still limited. The Challenge of Image Retrieval series of conferences was originally set up to bridge the gap between the different communities with an interest in image retrieval.

This conference, the fourth in the series, aims to provide a European-wide forum for the discussion of challenges in the fields of image and video retrieval. A unique feature of this conference is the high level of participation from practitioners. Applications papers and presentations suitable for a wide audience are therefore particularly welcome. Topics of interest include but are not limited to:

Query models, paradigms and languages for image/video retrieval
Content-based indexing, search and retrieval of images
Feature extraction and representation
Visual perception and image/video retrieval
Image/video search and browsing on the Web
Similarity measures between images/video
Semantic retrieval of images and video
Pattern recognition techniques for image classification and retrieval
Evaluation of image and video retrieval systems
Studies of information-seeking behaviour among image/video users
HCI issues in image/video retrieval
Database architectures for image/video retrieval
High performance image/video indexing algorithms
Novel image data management systems and applications
Image data management for multimedia systems

Further areas of interest are security and rights management pertaining to visual data.

KEYNOTE SPEAKER:

Prof. David Forsyth, UC Berkeley

SUBMISSIONS

Authors are asked to email full papers (no longer than 8 pages in the Springer LNCS style in English), to:

civr@liacs.nl

with the following information:

1. Title of Paper

2. Short Abstract summarising the main contribution of the paper

3. Contact Author: Name, Email, and Phone Number

4. The paper in postscript or PDF format.

Electronic submissions are preferred. If electronic submission is not possible by the author, then 5 paper copies may be sent to

Dr. Michael Lew
Niels Bohrweg 1
Leiden Institute of Advanced Computer Science
Leiden University
2333 CA Leiden
Netherlands

Phone: +31-71-527-7077
Email: mlew@liacs.nl
WWW: http://www.liacs.nl/home/mlew

All submissions will be peer reviewed by the program committee. Accepted papers will be published in the conference proceedings.

ORGANIZING COMMITTEE

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The British Computer Society. Information Retrieval Specialist Group
The British Machine Vision Association
The Institution of Electrical Engineers
The Leiden Institute of Advanced Computer Science

Dr Richard Harvey
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email: rwh@sys.uea.ac.uk

2nd International workshop on Pattern Recognition in Remote Sensing

The 2nd International workshop on Pattern Recognition in Remote Sensing (PRRS) (Co-sponsored by IAPR-TC7 and IEEE) will be held at

the Fallsview Sheraton Hotel, Niagara Falls, Canada on 16 August 2002.

Papers are invited for the second International workshop on Pattern Recognition techniques in Remote Sensing which is to be held in Canada, near Niagara falls, immediately after ICPR 2002 in Quebec.

The workshop is organised by the IAPR Technical Committee for Remote Sensing (TC7), and it is co-sponsored by IAPR and IEEE.

The venue is next to the Niagara falls, with magnificent views over the falls. There are several direct flights from Quebec to Toronto per day, lasting 1 hr 45 min, and there is a shuttle bus that goes from the airport directly to the venue after every flight arrival.

International Scientific Committee:

S Ablameyko, Belarus Academy Of Sciences, Belarus
J A Benediktsson, University of Iceland, Iceland
E Binaghi, Istituto per le Technologie Informatiche Multimediali, Italy
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G Vernazza, University of Genoa, Italy

Submit 4 copies of a paper of no more than 10 pages (A4 double spacing) to Prof M Petrou (PRRS), School of Electronics, Computing and Mathematics, University of Surrey, Guildford, GU2 7XH, UK

The papers will be published in the workshop proceedings, by BMVA Press (ISBN 1 901725 18 9) and a selected number of them to a special issue of Pattern Recognition Letters.

The workshop fee is 80 UK pounds, including a copy of the proceedings, lunch and coffee breaks.

Participants are expected to make their own travel and accommodation arrangements. To get a room in the conference hotel please contact them directly. Their contact details are:

Fallsview Sheraton Hotel, 6755 Fallsview Blvd., Niagara Falls, Ontario, Canada L2G 3W7 (Tel: +1 905 374 1077, Toll-Free in North America: +1 800 267 VIEW (8439), Fax: +1 905 374 6224).

The cost of a room is 144 Canadian dollars for a Green View Room and 244 Canadian dollars for a Falls View Room. To secure your room you must pay the hotel 30 days before the meeting.

Submission deadline: 15 March 2002
Notification of acceptance: 5 May 2002
Camera ready copy: 10 June 2002
Meeting: 16 August 2002

Web address:

www.ee.surrey.ac.uk/Personal/M.Petrou/2nd.htm

Professor Maria Petrou
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Special Announcements

BMVA Distinguished Prize 2002

The BMVA Executive Committee seeks nominations for the Distinguished Fellow 2002 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 distinguish 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 the Chairman of the Prize Committee, Prof Roy Davies (e.r.davies@rhul.ac.uk), by the end of April 2002.

The Sullivan Doctoral Thesis Prize 2002

The BMVA Executive Committee seeks nominations for the Sullivan Doctoral thesis prize. The 2002 prize will be awarded to the best thesis nominated which was submitted and examined during the calendar year 2001. 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 Paul Rosin (paul.rosin@cs.cf.ac.uk) by the end of April 2002. The theses nominated should be made available through a web page. In addition, two hard copies (not necessarily bound) should be sent to Dr Paul Rosin, Department of Computer Science, Cardiff University, Queen's Buildings, Newport Road, Cardiff, CF24 3XF.

Book review – Computational Vision: Information Processing in Perception and Visual Behaviour

Hanspeter A. Mallot (translated by J.S. Allen) *Computational Vision: Information Processing in Perception and Visual Behavior*, MIT Press, January 2001, ix + 296 pp., hardback £34-50, ISBN 0 262 13381 4

Although computer vision and visual neuroscience are each fields with an abundance of introductory textbooks, there are few books which provide a useful introduction to both. Those that do tend to get too large to function as general introductions, and thus serve more as references. Thus there has been a need for an introductory text that presents the main concepts concisely enough to form a readable introduction, and Mallot has made a good job of it. The book is essentially a textbook on vision in the context of neuroscience research, but written in a way that is particularly accessible to mathematicians, engineers and computer scientists. At 300 pages, the book manages to provide a compact and easily digestible summary of the processes underlying the computational perception of colour, shading, depth and motion. The level of detail is sufficient that one can do useful work based on the book's discussions, but is deftly presented, so that one can skim the mathematical elements when reading for general knowledge, but return to them when considering an implementation or deeper exploration of a concept presented therein.

The audience of which one immediately thinks when reading this book is first year postgraduate students coming to vision from other fields. Those with backgrounds in mathematics, the physical sciences, and biology are well served if they can acquire a general knowledge of computational vision in the areas outside their immediate domain of exploration. For a book to be effective in providing such an overview, it must be easy to read and make good use of both diagrams and formulae. This book does that, and is therefore a good choice as a computational vision 'conversion course'. Even for the experienced computer vision researcher, the inventive treatment of standard topics such as colour illumination or the aperture problem in motion, combined with the biological slant, means that a nugget of interesting knowledge is discovered in almost every section.

In all, this is a likeable book: a general introductory textbook which manages to fill a useful gap in a dense literature, and will be particularly valuable for the general education of postgraduates and advanced undergraduates.

Dr Andrew Fitzgibbon
Oxford University
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Book for review

Would you like to have the opportunity to review a book for BMVA News? If you review a book you can of course keep it for your own use! Books will be sent out on a first come–first served basis. A book that has recently been received for review is:

O. Faugeras and Q.-T. Luong *The Geometry of Multiple Images: the Laws that Govern the Formation of Multiple Images of a Scene and Some of Their Applications*, MIT Press, May 2001, ISBN 0 262 06220 8, hardback £44-95, xxiv + 644 pp.

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See the BMVA website for further up-to-date information on BMVA activities:

`http://www.bmva.ac.uk/`