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 1 June 2008.

Contents

Editorial: *The Day of the Paperless Conference may be Nigh!*

Last weekend I ran out of paper and was in something of a panic because I had a tedious session of proof-reading ahead of me; also, I normally find that any sort of reading requires getting a good overview of the material, which is best achieved by laying out all the sheets on a table. So I soldiered on and soon realised that because proof-reading is one of those activities that requires only local understanding, the *best* way of doing it is to produce the largest possible head-up display of just the current paragraph – a no-paper solution! Incidentally, I guess many of you will have heard the story that proof-reading is best carried out by reading the manuscript backwards, in order to suppress meaning and focus on the local layout! But actually, sometimes meaning does come into it, as a whole line may have been sliced away and a sentence only makes local sense. In fact, when moving pictures around, bits of text can be mislaid or moved accidentally: hence in proof-reading one has to be prepared for any eventuality. Which means that several readings focussing on different aspects of the document can be useful, one of which could involve reading backwards.

Nevertheless, my discovery about head-up displays is not going to have much effect on my use of paper, because I personally find that getting the right overview of what one is reading is what is important: indeed, the whole point of reading is to separate the wood from the trees. And it's no less like this with conference proceedings. I simply have to have the printed proceedings in order to get the most out of conference papers while they are being presented: the bonus is that this helps one to relate the printed paper to the rather different paper, with particular emphasis, that is actually

being presented. So I don't find the advent of proceedings-less conferences at all comfortable, and unfortunately (for me) we may soon find that BMVC falls in this class – though at the time of going to press the matter hasn't actually been decided. However, it seems a bit odd that the idea of the paperless conference hasn't gone the same way as that of the paperless office.

If this situation comes to pass, it could mean that many more people will end up taking their laptops to conferences, with the consequence that even more people will be attending to their emails rather than to presentations. Also, failure to understand papers in detail because of lack of associated printed material could mean that people spend more time talking to each and we end up with a different sort of (quite enjoyable) conference. The problem may then be that if people feel afterwards that all they have done is to talk, they will experience a lack of achievement, and be less inclined to attend the next paperless conference. Well I admit that all this is personal speculation, and people will have a variety of reasons for attending or not attending particular conferences, but there is a dearth of information on this – so organisers beware!

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

New Scheme for the Annals

Up to now the Annals have effectively been targeted as Special Issues which are published on our website when Chairs of BMVA Technical Meetings find a suitable number of good papers in their meetings. However, some individual presenters may have found they are disadvantaged when, for any reason, a Special Issue is not produced.

To cope with this, we have developed a new scheme whereby any presenter can submit a paper *independently* if a Special Issue is not forthcoming. The new arrangement will be for Chairs to have *one month* from the date of the meeting to assess the position: after that presenters may approach me (as EiC) directly.

At the present point in time, we acknowledge that there may be a backlog of papers that presenters would like to submit to the Annals: they should contact me as soon as possible about this (at the latest by 24 May).

Professor Roy Davies
Editor-in-Chief, Annals of the BMVA
email: e.r.davies@rhul.ac.uk

EPSRC Summer School 2008

The EPSRC sponsors an annual Summer School on computer vision, which is managed, arranged and publicised by members of the BMVA. Speakers on the Summer School are academic researchers or experienced practitioners from industry.

This year's Summer School will be held at the Department of Computing and Electronic Systems of the University of Essex during 6–11 July 2008. The course is residential and is free to EPSRC-sponsored students, except for travel. For others, the Summer School will cost £500.

The course is intensive and is aimed at graduate students in the fields of Computer Vision, Pattern Recognition and Digital Imaging. The Summer School has been running for over a decade and is updated every year to ensure it covers the state of the art, broadens awareness of related research fields, and develops research skills.

For further details and the application form, please point your web browser at:

http://www.bmva.org/summer/

Dr Adrian F Clark
University of Essex
email: alien@essex.ac.uk

BMVA Distinguished Fellow 2008: Call for Nominations

The BMVA Executive Committee seeks nominations for the Distinguished Fellow 2008 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 Majid Mirmehdi by 10 May 2008.

Dr Majid Mirmehdi
BMVA Chairman
email: chair@bmva.ac.uk

BMVC 2008 – Final Call for Papers

http://www.comp.leeds.ac.uk/bmvc2008/

The British Machine Vision Conference is the main UK conference on machine vision and related areas. Organised by the British Machine Vision Association, the 19th BMVC will be held during 1–4 September 2008 at the University of Leeds, Leeds, UK.

Authors are invited to submit full-length high-quality papers in image processing and machine vision. Topics include, but are not limited to:

- Statistics and machine learning for vision
- Model-based vision
- Stereo, calibration, and geometry
- Image processing techniques and methods
- Person, face, and gesture recognition
- Texture, shape, and colour
- Motion, flow and tracking
- Video analysis
- Segmentation and feature extraction
- Document processing and recognition
- Biomedical applications
- Vision for visualisation and graphics

All papers will be blind-refereed by three members of the international programme committee. Successful papers will be presented at the single-track conference. Proceedings will be published in paper and electronic form and distributed at the conference and online.

In addition to the contributed papers, the conference will include keynote presentations by Ramin Zabih, Professor of Computer Science and Radiology at Cornell University, USA, and Cordelia Schmid, INRIA Research Director at INRIA Rhones-Alpes, France.

The conference registration includes a pre-conference tutorial, to be given by Phil Torr of Oxford Brookes University, UK, on the topic of discrete optimisation methods for computer vision.

Workshops

We hope to offer delegates an additional workshop on 4 September. Proposals for workshops are invited: please contact the organisers.

Important Dates

Submission deadline: 28 April 2008
Notification of acceptance: 23 June 2008
Camera-ready deadline: 21 July 2008
Main conference: 1–4 September 2008

A PDF flyer of this CFP is available at
http://www.comp.leeds.ac.uk/bmvc2008/docs/cfp.pdf

Dr Mark Everingham
University of Leeds
email: me@comp.leeds.ac.uk

BMVA Video and Poster Competition

One of the principal roles of BMVA is to promote UK Computer Vision research to both industry and the general public.

The BMVA is holding a competition to find the best examples of videos and posters that represent Computer Vision research within the UK. We are inviting individual researchers (especially PhD students and RAs) or research groups from any UK higher institution to submit short videos and posters that aim to explain a particular research theme in the area of Computer Vision. Posters and videos should be free-standing and should present the work in such a way that the average science graduate can understand it and appreciate the benefits of the research.

Posters and videos will be judged according to the following criteria:

- How well they promote computer vision and its applications to the general public.
- Their ability to demonstrate the practical applications of the research to industry.

The best overall poster or video, as judged by a panel selected from the BMVA Committee, will receive the top prize of £500. The runners-up will each receive a prize of £300 and their material will be used by the BMVA to promote the significant contribution of Computer Vision research in the UK to Industry and

Society. Copyright will remain with the authors/Universities but BMVA reserves the right to use the best posters and video materials at conferences and exhibitions.

Video submissions should be no more than 3 minutes long at full PAL resolution (728 × 576) as either an MPEG or AVI file. Video should not contain a voice-over but can use titles and explanatory captions where required. Poster submissions must use the template provided by BMVA to ensure a standard style.

All submissions must arrive by 15 May 2008.

The winners will be notified by email by the end of May and will be announced through the BMVA website and newsletter.

For further details about the competition and information on how to obtain a copy of the BMVA poster template, please contact Dr Aphrodite Galata.

> Dr Aphrodite Galata
> BMVA Publicity Officer
> University of Manchester
> a.galata@manchester.ac.uk

Robotics and Vision Meeting

Second Call for Participation

www.bmva.ac.uk/meetings

One-day BMVA symposium in London, UK on 14 May 2008

Chair: John Illingworth, University of Surrey

One of the initial inspirations of AI researchers was the challenge of producing autonomous and seeing machines. We have since learnt that the problems encountered are far more difficult than could have been imagined. The enormity of the problem has led to specialisation of function and expertise into sub-disciplines, of which robotics and computer-vision are two prime examples. Thus, two related but often distinct communities of researchers have grown up. The purpose of this meeting will be to bring together practitioners from both communities and showcase work where there is overlap of interests, thereby encouraging future multi-disciplinary collaboration.

Papers are sought that relate to the intelligent integration of cameras, computers and actuating machines in

challenging environments. Topics that would be of interest include, but are not restricted to:

- Visually guided mobile robots
- Medical and surgical robotics
- Industrial service robots
- Cognitive robots
- Household robots
- Computational and cognitive theories of robots
- Humanoid and toy robots

Please submit an extended summary of about one page A4 (maximum two pages), preferably in PDF format, including links or pointers to web-based illustrations, demonstration material or papers giving more details.

Please submit papers by email attachment to Professor John Illingworth (J.Illingworth@surrey.ac.uk) by 17:00 on Monday 7 April 2008.

Informal enquiries about the meeting can be directed to John Illingworth at the above email address or via phone on 01483 689835.

> Dr Simon Prince
> UCL
> email: s.prince@cs.ucl.ac.uk

Smart Environments Meeting

Call for Participation

www.bmva.ac.uk/meetings

One-day BMVA symposium in London, UK on 6 June 2008

Chair: Maria Petrou, Imperial College London

From smart cars to smart homes and smart hospitals, from monitoring the infirm, the very young and the elderly to making our life more pleasant and easy, omnisensing and ubiquitous computing is here to stay. There are developments in sensors, processing capabilities, communications and systems. It is hoped that the meeting will be comprehensive on several related topics, with emphasis on multi-sensor technologies, cognitive vision and pattern recognition methodology.

Researchers working in areas like gesture recognition, behavioural patterns, smart clothes and smart cameras,

as well as any other relevant topics and applications, are encouraged to participate.

Please submit an extended summary of about one page A4 (maximum two pages), preferably in PDF format. Send contributions by email attachment (max 1Mb) to Maria Petrou by 30 April 2008.

Professor Maria Petrou
Imperial College, London
email: maria.petrou@imperial.ac.uk

Report on 3D Video – Analysis, Display and Applications

This BMVA Symposium was held at The Royal Academy of Engineering, London, on 6 February 2008.

Chairs: Dr. David Marshall (Cardiff University), Professor Adrian Hilton (Surrey University), Professor Stephen Richmond (Cardiff University) and Professor Bob Fisher (Edinburgh University).

Recent advances in camera technology and computing power have made the acquisition of fast frame rate 3D video feasible, although subsequent 3D video processing and analysis tools are still in early development. However, the potential for 3D video in entertainment, multimedia, security, medical and many other application areas is great. This meeting provided a forum for the discussion of recent results in 3D video creation, processing/analysis, visualisation and display technologies and applications, as well as new developments in the face animation field. A number of important speakers gave talks, both from UK and abroad, which attracted a larger audience than expected, so much so that it sold out twice and the venue moved to the rather attractive surroundings of the Royal Academy of Engineering. A review of the talks follows.

The first invited talk was given by Thomas Vetter (University of Basel) in which he presented an overview and new work on 3D face reconstruction from monocular and stereo images. Analysis by synthesis was explained, and the 3D faces database was presented as a way to construct a vector space of 3D faces. Some problems were presented regarding PCA when modelling face appearance in face space and it was shown how it was possible to reconstruct images outside of the model by chance. Examples with a regression function were demonstrated using properties such as gender and weight. Then it was shown how a local minimum problem can be addressed using multiple features as a solution. At the end it was shown how stereo reconstruction can be used to solve ambient lighting problems.

A session dedicated to 3D video analysis and representation then followed. Stephen Richmond (Cardiff University) gave a presentation on the use of 3D motion analysis to assess facial change as a result of dental surgical intervention. Tim Lukins and Bob Fisher (Edinburgh University) proposed an extension of existing static surface analysis to the temporal domain by using a mark-up language for describing all types of surface deformation in order to reduce 4D data size and interpretation time. Kirill Sidorov (Cardiff University) presented a novel statistical approach to building a realistic facial appearance model that is controlled by a small number of parameters from a low resolution control and a heightmap encoding of high resolution 3D data that is ready for fast rendering using graphics hardware and simple 2D image processing techniques. Also, it was shown that a meshless 3D structure approach is suitable for physical modelling of dynamics and fast rendering. In the final talk of this session, Toby Collins (Edinburgh University) explained a method for quasi-isometric surface reconstruction from 4D range data using an isomorphism model. He demonstrated his proposed method on some impressive examples such as a flying flag and a deforming magazine cover that had difficult occlusion zones.

In the second invited talk Marcus Magnor (Technical University Braunschweig) compared Physics and Perception approaches in modelling and showed that by using models that take into account perceptional consequences it is possible to produce more visually appealing results faster. He also gave very interesting demonstrations such as flame animation, floating textures, soft visibility etc.

The second session focussed on face animation. James Edge (Surrey University) presented technique for 3D video face capture and registration using painted markers in order to achieve high reliability over long sequences. Registration was done using Isomap to project the geometry into a 2D surface space. In the next talk Lan Benedikt (Cardiff University) showed interesting and accurate results on person recognition based on mouth dynamics using a time warp distance metric. Darren Cosker (Bath University) then presented an analysis model based on an orthogonal vector basis, where vectors describe a distribution of joint shape and texture features and are orthogonal to each other with respect to facial actions. The sensitivity of humans to facial dynamics was explained; results of employment and gambling games were presented; and it was shown how slight changes of temporal variations in smiling influenced decisions on the trustworthiness of

participants in the game. The final talk of this session was given by Jolyon Webb from Blitz Games. This was probably the most entertaining talk of the Symposium. Very realistic parameterised graphical human models were presented. Realistic breathing, reaction to injuries, low density mesh mapping to high density mesh and other topics were covered. The animated injuries presented were so realistic that I'm sure most of the audience felt sorry for the character.

The final invited talk was given by Christian Wallraven (Max Planck Institute) with a psychophysical perspective on 3D. It was shown through various examples that humans are more sensitive to motion than to shape; that the brain stores 3D projections and not 3D models themselves; and it was clarified how the brain handles physical entities such as elasticity, light rays, transparent objects, etc.

The third and final session was about 3D TV. Oliver Grau and Adrian Hilton gave a presentation on their iview project – Free-Viewpoint Video for Sports – that's being developed at Surrey University for BBC Research. Still in the development phase, it already shows amazing possibilities, enabling an arbitrary angle of view of a football pitch which is especially useful to get better insight into some important moments in the game (e.g. offside decision). By placing multiple calibrated cameras around the pitch it enables recreation of 3D video. However, many problems need to be solved in the process, such as getting a proper visual hull of the players. Due to the inexact nature of the calibration and image segmentation, the visual hull can be severely truncated and dilated, so a 'conservative' visual hull has to be used which is later reduced by various refinement techniques. Oliver Grau also gave an interesting talk on how the BBC has produced a series of 3D visual effects that have enhanced BBC sport and other productions in recent years. Ian Grimstead (Cardiff University) gave a very nice overview of current 3D display technologies. Some incredible systems are being developed around the world including a 3D hologram using hydrogen atoms which is excited by lasers! Djamel Hassaine (Durham University) rounded off the day with an interesting talk about how efficient image generation for multiview 3D displays is possible based on recent psychophysical studies investigating task performance with different display design parameters. These results have subsequently guided his implementation of novel multiview rendering algorithms.

Many interesting works were presented at the poster session across a wide variety of topics. Hugh Gribben (Queen's University Belfast) demonstrated automated 3D tracking of low light level imagery using a Poisson distribution instead of a Gaussian. Richard Seely described a spatio-temporal 3D gait recognition system tested at the Biometric Tunnel at Southampton University. Bogdan Matuszewski (University of Central Lancashire) presented his approach to statistical modelling of 3D face videos. An interesting poster was presented by Dulcidio Ferreira-Coelho (Salford University) about the efficient segmentation and representation of multi-view images using plenoptic hyper-volumes and hyper-volume extraction scheme based on active contours (level sets). It allowed for accurate object/character segmentation and scene manipulation.

All in all it was a very interesting and scientifically invigorating day.

Vedran Kajic
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Forthcoming BMVA Technical Meetings

Below are listed the Technical Meetings that BMVA proposes to run during the coming nine months or so: however, please note that some of the later dates must be regarded as tentative. As this issue of BMVA News goes to press, the submission deadline for the first of these will just have passed.

14 May 2008	Robotics and Vision
28 May 2008	Imaging in the Eye
6 June 2008	Smart Environments
29 Oct 2008	Learning in Vision
11 Nov 2008	Imaging Tissue Regions and Anatomical Structures in Medical Data
21 Jan 2009	Image Statistics

Be sure to check any relevant meeting on the BMVA website for further details and any updates. (Note that occasionally the most successful meetings are forced to change venue at the last minute to accommodate participants: it really does pay to have a last-minute look at the website before catching the train!)

Dr Simon Prince
UCL
email: s.prince@cs.ucl.ac.uk

Medical Image Understanding and Analysis 2008

MIUA 2008 will take place in Dundee on 2 and 3 July 2008. This is the principal UK forum for communicating research progress in image analysis applied to medicine and the biological sciences. It aims to encourage the growth and raise the profile of this multi-disciplinary field by bringing together the various communities involved. Contributions from outside the UK are welcome and encouraged. The scope of the meeting extends from analysis of medical and biological images to imaging physics and clinical studies.

Technical papers (5 pages) are solicited on any topic within the scope of the conference. Each paper will be evaluated by three reviewers.

Challenge abstracts (1 page) are also solicited. These should outline a challenge to the image analysis community from a clinical or end-user perspective.

MIUA is single-track with oral and poster presentations. All accepted contributions will be published and the full proceedings will be available at the conference. Selected papers are also likely to be published in a journal special issue. CPD accreditation is being sought from relevant organisations. MIUA 2008 will include tutorial and keynote presentations by three invited speakers:

- Michael Unser, EPFL: *A Guided Tour of Splines for Medical Imaging*
- Jayaram K. Udupa, University of Pennsylvania: *Comparing and Evaluating Image Segmentation Methods*
- Nikos Paragios, École Centrale de Paris: *Deformable Registration: Setting the State of the Art*

Dundee sits on the Tay Estuary on the east of Scotland. London is 75 minutes by flight, and international connections are available from Edinburgh, Glasgow and Aberdeen. Dundee is on East Coast and Cross Country train lines.

Further details may be found at http://www.miua.org.uk. Please register with the website to ensure that you are kept up to date.

Steering Committee

E Claridge, University of Birmingham
W Crum, Institute of Psychiatry, London
J Graham, University of Manchester
S McKenna, University of Dundee
M Mirmehdi, University of Bristol
D Rueckert, Imperial College London
N Thacker, University of Manchester
R Zwiggelaar, University of Wales Aberystwyth

Important dates

Submission deadline: 14 March 2008
Notification of acceptance: 6 May 2008
Camera-ready deadline: 20 May 2008

If you have any questions regarding this conference, please email the conference chairs, Stephen McKenna (stephen@computing.dundee.ac.uk) and Jesse Hoey (jessehoey@computing.dundee.ac.uk).

> Dr Stephen McKenna
> University of Dundee
> email: stephen@computing.dundee.ac.uk

Research Funding available from the VVG Network of Excellence!

The VVG Network of Excellence exists to fund cross-disciplinary research in the intersection of Vision, Video and Graphics. Typically a researcher from a laboratory of one kind (vision, video or graphics) is funded to spend time in a laboratory of another kind. Students, Research assistants, and academics have all been supported. Researchers can come from or go to industry or overseas. The network is able to at as 'marriage broker' between laboratories.

VVG can fund the living cost, accommodation, travel and out-of-pocket expenses (such as loss of tuition fees) for the researcher. Apply for as much as you can justify: typical awards are a few thousand pounds.

Anyone may apply. Administration is very light – just couple of sides of A4. Applications are processed by rapid (we emphasise rapid) peer review.

For details on how to obtain VVG funding, contact Peter Hall.

> Dr Peter Hall
> University of Bath
> email: pmh@cs.bath.ac.uk

Book for Review

The following book is on offer for review. 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. (If you are doubtful, go for the *quick view* option, and then return the book to me if you would rather not do the review.)

Rhodri H. Davies, Carole J. Twining, Chris J. Taylor. *Statistical Models of Shape: Optimisation and Evaluation*. Springer, 2008, 318 pp.

I ought to add that this monograph is due out in August, so I am acting early in order to secure a prompt review.

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

Solution to Perspective Projection Puzzle

The puzzle was as follows:

When I inserted the picture of the Tay Estuary into a single column of text, it seemed far too small, and I had the brainwave of stretching it vertically to make a more readily interpretable, if distorted, picture – as above. In fact, it hardly looks distorted, and I wondered how this could be, considering that a gross perspective transformation had been instituted.

In the absence of a submitted solution, here is my own:

First note that there are three perceptions to be made about an image such as this: the apparent depth d, the apparent height h and the apparent width w of any object in the image. Stretching the image vertically affects both d and h, which sounds complicated. However, we can instead imagine that the image has been compressed horizontally, which only affects w. This would appear to mean that the relative depth (d/w) of any object has been multiplied by 2, which should be readily detectable. However, there is a complicating

factor – that one can't tell the viewpoint accurately, so changes in d/w could have arisen by viewing the picture from much higher up. But this would also affect h, and that ought to give the game away. Here there are two relevant factors: (1) h is small and difficult to ascertain for any object; (2) one needs to *recognise* the buildings in order to detect the discrepancies. Because of the latter, and the fact that the load can be spread over 2 parameters, it would take someone very knowledgeable, and used to looking at these particular buildings from an aeroplane, to discern the distortion with any certainty.

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

BMVA Thesis Archive

As mentioned in the last issue of BMVA News, BMVA now has a policy of collecting and archiving PhD theses from the field of machine vision and publishing them online for use by the academic community. Now that the thesis archive has acquired a considerable number of theses dating from 1996 onwards, we would like to raise members' awareness: accordingly, we here list those dating from 2007:

- Atkinson, Gary – Surface Shape and Reflectance Analysis Using Polarisation
- Bai, Xiao – Heat Kernel Analysis on Graphs
- Claus, David – High Accuracy Metrology Using Low-Resolution Cameras
- Hernandez-Marin, Sergio – Bayesian analysis of lidar signals using reversible jump Markov chain Monte Carlo algorithms
- Kohli, Pushmeet – Minimizing Dynamic and Higher Order Energy Functions using Graph Cuts
- Parnham, Daniel – An Infrastructure for Video-Augmented Environments
- Smith, William A. P. – Statistical Methods For Facial Shape-from-shading and Recognition
- Wang, Hongfang – Non-Rigid Motion Behaviour Learning: A Spectral and Graphical Approach.

The most recent thesis submissions always appear in the archive's home page:

http://vision.cs.man.ac.uk/theses/index.php

> Dr Aphrodite Galata
> University of Manchester
> a.galata@manchester.ac.uk

Fifth International Conference on Visual Information Engineering

29 July – 1 August 2008, Xi'an, China

http://vie08.qmul.net/

The IET Visual Information Engineering conference aims to bring together leading international researchers, developers, creators, educators, and practitioners in networked media, image processing, machine vision, computer graphics, virtual and augmented environments, and visual communications to share our latest achievements and explore future directions and synergies.

VIE is the flagship IET event in the area and will provide an ideal forum for researchers, practitioners and educators in the VIE community to discuss results and advancements in a high quality, peer reviewed environment.

The scientific program of VIE'08 will include presentations by invited internationally-renowned plenary speakers, special sessions, and tutorial and regular sessions with contributed research papers. Tutorials will cover Concept-based Video Search, Sports Video Content Analysis, and more.

The conference proceedings will be indexed by EI. Extended versions of VIE papers will be reviewed and considered for publication in Special Issues of IET Image Processing, IET Computer Vision and the EURASIP journal on Image and Video Processing.

Local information

The conference will be held in Xi'an, one of the Four Great Ancient Capitals of China and among one of the most beautiful and historical cities of the country. A major attraction of Xi'an is the famous terracotta army discovered in the area near the city.

China is currently living a period of great social, cultural and economical animation. 2008 is the best year to visit this country due to the additional momentum given to this process by the Olympic Games in Beijing.

Additionally, on 1 August 2008 (the last day of the conference), Xi'an is one of the best places on earth to see the rare and spectacular event of a total solar eclipse.

For further details, see:

http://vie08.qmul.net/vie2008_local_information.htm

General Co-chairs

Ebroul Izquierdo (Queen Mary, Univ. of London, UK)
Guizhong Liu (Xi'an Jiaotong Univ., China)

Technical Programme Co-chairs

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Important dates

Notification of acceptance: 30 April 2008
Camera-ready deadline: 20 May 2008

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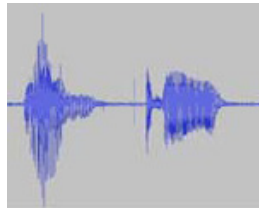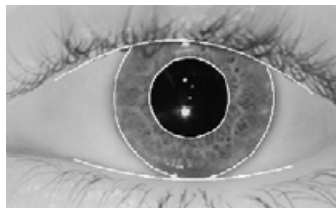
BTAS 2008 Biometrics Conference

2nd IEEE International Conference on Biometrics: Theory, Applications and Systems

BTAS 2008 will be held at the Hyatt Regency Crystal City, convenient for numerous dining, shopping, and tourist attractions. Families should enjoy visiting Washington DC at this time of year.

BTAS 2008 is the premier research meeting focused on biometrics. Its broad scope includes advances in fundamental pattern recognition techniques relevant to biometrics, new algorithms and/or technologies for biometrics, analysis of specific applications, and analysis of the social impacts of biometrics technology. Areas of coverage include biometrics based on voice, fingerprint, iris, face, handwriting, gait and other modalities, as well as multi-modal biometrics and new biometrics based on novel sensing technologies.

Submissions will be rigorously reviewed, and should clearly make the case for a documented improvement over the existing state of the art. Experimental results for contributions in established areas such as voice, face, iris, fingerprint, and gait are encouraged to use the largest and most challenging existing publicly available datasets. Topics of interest include but are not limited to:

3D face recognition	multi-biometric fusion
age effects	new classifiers
anti-spoofing methods	novel applications
covariate analysis	palm/foot print
ear biometrics	performance evaluation
face appearance	recognition by gait
face recognition	security and privacy
feature analysis	smart guns
fingerprint	social impact analysis
hand geometry	speaker recognition
illumination invariance	usability studies
iris biometrics	writer recognition

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Patrick J. Flynn, University of Notre Dame, USA

Submissions

Submitted papers may not have been accepted elsewhere, or be under review elsewhere, during the BTAS 2008 review period. BTAS is sponsored by the IEEE Systems, Man and Cybernetics Society. Papers accepted and presented at the conference will appear in the IEEE Xplore Digital Library. Papers may be up to six pages in conference paper format.

Details will be available at:
http://www.cse.nd.edu/BTAS_08/.

Important Dates

Submission deadline: 16 May 2008
Notification of acceptance: 25 July 2008
Camera-ready deadline: 15 August 2008
Conference: 29 September – 1 October 2008

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Report on SPIE Medical Imaging Conference 2008[2]

SPIE Medical Imaging (http://spie.org/mi) is an annual international conference organised by the International Society for Optical Engineering and held in San Diego. This year the conference was held during 16–21 February. The meeting was divided into eight overlapping conferences: Image Processing; Physics of Medical Imaging; Computer-Aided Diagnosis;

Physiology, Function and Structure from Medical Images; Image Perception, Observer Performance and Technology Assessment; Visualisation, Image-guided Procedures, and Modelling; PACS and Imaging Informatics; and Ultrasonic Imaging and Signal Processing.

At the meeting around 860 papers were presented during oral and poster sessions. The attendance approximated at about 1250 people. There were 13 educational courses, one of them attended by 44 people. The technical exhibition was attended by a dozen or so companies including: Academy of Molecular Imaging, Advanced Imaging Magazine, American Association of Physicists in Medicine, Biophotonics International, Clario Medical Imaging, CRC Press, eV Products, Hamamatsu Corp., Laser Focus World, Materialise USA, Medical Image Perception Society (MIPS), Medicalphysicsweb.org, National Institute of Biomedical Imaging and Bioengineering, Society for Imaging Informatics in Medicine, Thales Components Corp.

There were eight 2-hour afternoon workshops, which turned out to be very popular. Two of them focused on the DICOM standard, which was one of the popular subjects discussed at the conference. Other workshop topics included: Virtual Endoscopy; Recent Developments in ROC Analysis; Modelling for Therapy Guidance and Medical Imaging; and Multi-Energy X-ray and CT Imaging. The special event workshop discussed Major Challenges for Medical Applications in Content-Based Image Retrieval. The plenary session featured a talk given by Dr John C. Gore on "Challenges and Opportunities of Ultra-High Field MRI and MRS". Keynote speakers presenting invited papers included amongst others: James S. Duncan, Yale University "Model based biomedical image analysis"; Heinz-Otto Peitgen, MeVis Research Gmbh "Clinical relevance of CAD and visualisation", Robert D. Howe, Harvard University "Robo-surgeon – combining medical imaging and mechanical models to automate surgery"; Arthur E. Burgees, Harvard Med. School, "An unexpected research career: How a short project became long".

Starting next year, the conference venue will alternate between Orlando, Florida and San Diego, California.

I found the conference a useful platform for networking. The paper presented by me: "Bleeding detection in wireless capsule endoscopy using adaptive color histogram model and support vector classification" sparked significant interest from academics and industry, which allowed me to discuss certain issues after my presentation was over. Currently, I am in contact with a couple of people I met there, which may result in future collaboration.

I would like to thank BMVA for funding the bursary, which allowed me to attend this conference.

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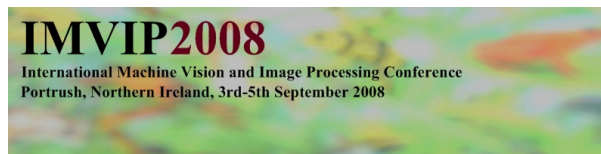
The International Machine Vision and Image Processing Conference will take place during 3–5 September 2008 at the Ramada Hotel, Portrush and is being organised by the School of Computing and Information Engineering, University of Ulster. IMVIP 2008 is the main conference of the Irish Pattern Recognition and Classification Society (IPRCS), a member body of the International Association for Pattern Recognition (IAPR).

IMVIP 2008 is a single-track conference consisting of high quality previously unpublished contributed papers. The conference emphasises both theoretical research results and practical engineering experience in all areas. Full papers will be subject to a double-blind review process by the Programme Committee. In addition to the contributed programme, there will also be talks by invited speakers. Contributions are sought in all aspects of image processing, pattern analysis and machine vision. For further details on the scope of the conference, see the website:

http://www.compeng.ulster.ac.uk/events/imvip2008

Important Dates

Submission deadline: 18 April, 2008
Notification of acceptance: 9 May, 2008
Camera ready deadline: 11 June, 2008
Conference: 3–5 September, 2008[3]

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[3]Unfortunately, this conference once again overlaps BMVC. – Ed.

Machine Vision Applications in the Food Industry

The food and beverage manufacturing industry is the single largest manufacturing sector in the UK. It has an annual turnover of £70 billion, representing 15% of total UK manufacturing, [4] and employs around 500,000 people.

Images illustrating food processing

The issues which drive the development of the food industry will come as no surprise: the influence of diet on health, the need to minimise waste and energy consumption, price pressures (particularly in the context of rapidly rising raw materials costs), quality and above all else, food safety. Customers expect variety and year-round availability and news stories about the latest healthy ingredient or celebrity diet can result in a sudden demand shift as certain foods suddenly become fashionable or unfashionable. As a result food processors must be flexible and responsive to market needs while maintaining the standards and competitiveness consumers expect. Innovation is therefore crucial.

In recognition of the importance of the industry to the future of the UK economy, the government funds the Food Processing Knowledge Transfer Network, one of 22 KTNs established to improve UK innovation in their area of interest. The Food Processing KTN has a mission to enhance UK manufacturing efficiency and nutritional quality.

One of the ways we are achieving this is by identifying technologies which can assist the UK food and beverage industry in detection and sensing applications; in this respect, machine vision has shown itself to be potentially extremely valuable in certain applications. By way of example, BMVA Committee member Professor Roy Davies has recently been able to identify how a large commercial vegetable processing plant could improve the accuracy of a camera-based vegetable sorter.

The Food Processing KTN would be very interested in working with any member of the BMVA who would like to investigate how their expertise could be applied to issues within the food industry. Topics of particular interest include:

- Foreign body detection
- Spoilage detection
- Maintenance of personal hygiene and use of protective clothing
- Colour and colour uniformity
- Size and dimensions
- Profiling to optimise cutting and consistent portion size
- Label scanning.

The Food Processing KTN is available to offer free assistance in bringing together users and developers of technologies to assist food processors; can advise on possible funding sources; and would be happy to provide information on the specific requirements of the food industry.

For further information please contact Lesley Hanna at Food Processing KTN, Innovation Park, Melton Mowbray, LE13 0PB, by phone on 01664 503640 or by email (see below).

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[4]Source: Food and Drink Federation report "Research into UK Food and Drink Manufacturing", August 2007.