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 10 December 2012.

Contents

Editorial: *"The End of the World as We Know It, Jim"*

On leaving a conference, and moving away from the hubbub of talks, meetings and conviviality, one has the chance to examine what one has learnt and to reflect on the new situation. There are few things better than a relaxing train ride to achieve this – and railway scenes have the added fascination of vanishing points with their intriguing focus on infinity. After BMVC, I found the scene at Woking station especially rewarding (see back page), because of the remarkably long straight stretches of track, even straighter than most Roman roads. But as relaxation set in, I realised that I hadn't heard anything at BMVC about algorithms for locating and using vanishing points, possibly for the first time in 20 years. This surely marks a turning point. VPs are no longer fashionable or even stepping stones for improving vision algorithms. But could it be that the case for their value has been made so volubly in the past that now they are accepted as part of the milieu: everyone is using them – so talking about them is no longer news. It's like the situation in archaeology: the ancients never wrote down what they had for breakfast because it's too trivial and everyone knew that sort of information. Even in my own lifetime, when my children ask what I used to have for breakfast, I happen to be able to answer (cornflakes), though I have little recollection of how often we had roast meals or cottage pie for lunch.

The other possibility is that people are not using VPs in their algorithms, as that stage is now being by-passed: the focus is now on tracking through occlusions, tracking facial expressions, validating biometric features, interpreting human sign language, implementing patch-match belief propagation and dealing with exotica. I suppose it had to happen sooner or later: structural

analysis of scenes has given way to acceptance that most of the world doesn't consist of neat lines and junctions or blocks-world objects, but rather we have to look at things probabilistically and in a machine learning sort of way, accepting that *real* objects are just hunks of random intensities assembled randomly. There's no beauty in that (not like my railway scene) and the computer couldn't care less whether the sun is shining on the rails in the evening light. We're moving into an era wherein the computer is so hugely powerful that it just learns everything, and our miniscule intuitions about the structure of the world are no longer helpful to it. Sad, demeaning even. But there it is. Eeyore might well have reminded us of this, in his gloomy sort of way, but he passed away long ago, and anyway wouldn't be much help in this sort of situation.

In fact, Eeyore-like, I've been warning about this for some time: computers get so big and powerful that the focus has finally changed from the hardware to the software. But how do you fill up a modern computer with enough code to really see, perceive and think? Oddly, I remember the time in 1980 when I was scared that I'd soon be out of business: the AI people had designed a package called MYCIN, which was able to extract all the experience of doctors and surgeons and use it to diagnose patients accurately; the doctors and surgeons would teach the package all they knew and then retire, as they would by then already be redundant. I reckoned I had 10 years left, but I hadn't reckoned with the over-enthusiasm for which AI people used to be renowned. Hence after 30 years I'm still not redundant, and nor are most of us: on reflection, and taking account of all I've said so far, maybe we have *another* 10 years before we need to retire.

I'll allow myself one last reflection. When I was young my Dad told me that when he was young, rumours went around (maybe under the auspices of the strict Welsh Baptist Church) that the end of the world was nigh. He asked his Dad about this, and the reply was "What, *again*?" But in the days of polar meltdown, who knows?

Special Issue on Challenges

As mentioned in the last issue of BMVA News, it is intended to make a portion of the December issue a Special Issue containing articles on *Challenges in Computer and Machine Vision*, past and future, as these are of crucial importance for the development of the subject. It is envisaged that articles will describe important past challenge(s), or intended challenge(s), or discuss the value and need for challenges. If you have

potentially suitable material, please contact me: or just submit an article by 10 December 2012.

Professor Roy Davies
Editor, BMVA News
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Call for Expressions of Interest to Host BMVC 2014

The BMVA Executive Committee would like any interested parties to inform them of their interest in hosting BMVC 2014. At this stage only an expression of interest is required: pending discussion by the Executive Committee, successful expressions of interest will be asked to supply an official bid to hold the conference.

For the expression of interest please supply the following details:

- Main contact for the conference – name, email and phone
- Prospective members of the conference organising committee
- Provisional dates for the conference, with a confirmation of provisional booking, details of accommodation, rooms and arrangements for conference venue and meals.

BMVC is traditionally held in one of the first two weeks of September and runs from Monday afternoon with a tutorial session and full conference single track podium and poster sessions Tuesday through to Thursday lunchtime. A separate UK PhD student workshop is held on the Friday.

The main conference auditorium must be large enough to accommodate 250 delegates and should be a tiered auditorium with adequate A/V facilities. The poster room should be capable of holding 150 2m × 2m poster boards, ideally in the same contiguous space (e.g. a large hall). For further information on preparing a proposal to run BMVC please refer to:

http://www.bmva.org/w/bmvc_proposals

Please send expressions of interest to the BMVA Chair, Dr Andrew Fitzgibbon by 12 October 2011.

Andrew Fitzgibbon
BMVA Chair
email: chair@bmva.org

Around and About at BMVC

Reception in Guildford Cathedral

Guildford Cathedral lit in green to celebrate the Olympics.

Josef Kittler makes a superb historical introduction to Computer Vision at the Reception.

The Revd Canon Andrew Bishop speaks with liveliness and empathy, and expresses his hopes for the future – not least for Computer Vision to achieve its immense potential in helping the developing World.

The audience maintain a rapt attention in this imposing setting.

Josef Kittler, Richard Bowden, Iain Matthews (Disney Research, Pittsburgh) and Helen Cooper.

Chris Li and colleague at the refreshments.

Richard Bowden, Adrian Hilton, Aphrodite Galata, Gabriel Brostow and Andrew Fitzgibbon.

Jon Almazan, Albert Gordo, Rui Hu and Naila Murray.

Fabio Cuzzolin, Yizhe Song, Miles Hansard and John Collomosse.

Scott Satkin, Santosh Divala and Thomas Pfister.

Modern sculpture at the entrance to the Cathedral.

Lectures and Posters

'Dancing seals' sculpture outside the Austin Pearce Building housing the conference reception and lecture theatre.

Artistic view of the lecture theatre.

Poster session in full swing.

Relja Arandjelovic presents his work with laptop and poster.

Evren Imre presenting his poster.
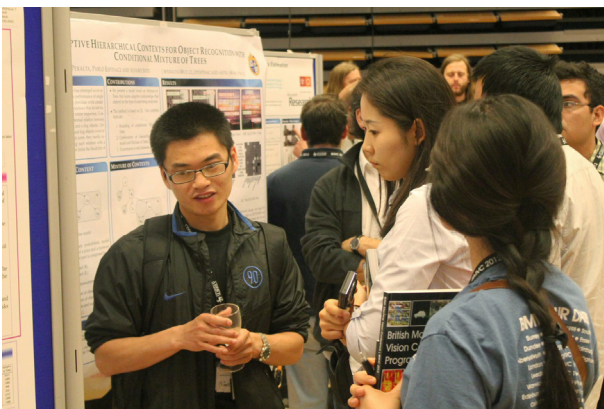
Active discussion around a poster.
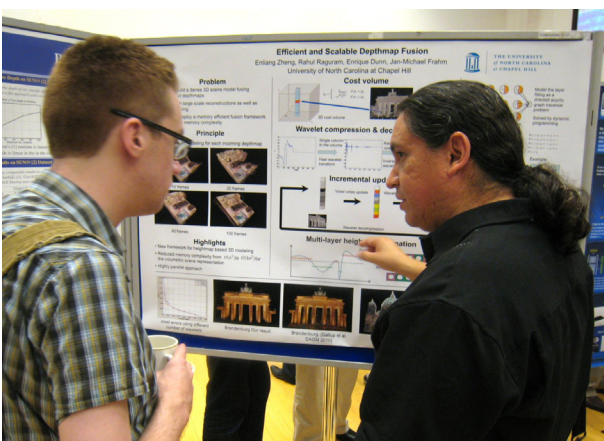
Ryan Lane asks some questions.

Banquet evening at Brooklands Motor Museum

A pleasant evening walk around the museum.

One of the motor car buildings.

Underneath the Concord (this one retired in 1981). The undercarriage seemed to use quite standard hydraulics.

Delegates converge leisurely on the Brooklands dining hall.

Cemre Zor, Tim Sheerman-Chase, Zhenhua Feng and Nazli Farajidavar. (This is one of the photos that Tim didn't take!)

Inside view of the dining hall.

Beef in Brooklands Ale.

Another view of the dining hall.

Richard Bowden, Jiri Matas and Andrew Fitzgibbon share an experience.

Daniele Perrone, Dalia Coppi and Teo De Campos.

Andrew Davison (IC) and Walterio Mayol-Cuevas (Bristol).

Prizes and Awards

Christof Hoppe receives the 'Best Demo' prize from Krystian Mikolajczyk.

James Charles and Tomas Pfister (on the left) receive the 'Best Video' prize.

Dima Damen receives the 'Best Poster' prize.

Frederic Besse receives the prize for the paper with the 'Best Impact'.

Thomas Berg receives the Mark Everingham Prize for the paper with the best evaluation.

Siyu Tang receives the 'Best Paper' prize.

Marco Paladini receives the Sullivan 'Best Thesis' Prize from Andrew Fitzgibbon.

Andrew Fitzgibbon presents John Illingworth with the *BMVA Distinguished Fellow 2012* award.

John Illingworth tells it how it was – in his Distinguished Fellow acceptance speech.

John presents his wife Sarah with a well-deserved bunch of flowers acknowledging the huge support she's given him over the years.

Helen Cooper also deserves a bunch of flowers for her extra-ordinary devotion to duty and attention to detail before and during the conference.

Walterio Mayol-Cuevas and Tilo Burghardt start the process of persuading people to submit papers to BMVC 2013, which well be held at their Bristol venue.

Andrew Fitzgibbon, Helen Cooper and Stuart James watching a classic motor racing film later in the evening.

Finally, I would like to acknowledge the incomparable support of Tim Sheerman-Chase who took most of the pictures and Helen Cooper and her team for providing many of the captions, thereby helping me to select these memorable views of the life of the conference. They also allow me to echo everyone's gratitude to Richard, Krystian and John and very many others for organising this highly successful and incredibly well-run conference at the University of Surrey.

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Prizes and Awards at BMVC 2012

Best Paper

"Detection and Tracking of Occluded People" by Siyu Tang (Max Planck Institute for Informatics), Mykhaylo Andriluka (Max Planck Institute for Informatics), Bernt Schiele (Max Planck Institute for Informatics)

with an Honourable Mention for

"Automatic and Efficient Long Term Arm and Hand Tracking for Continuous Sign Language TV Broadcasts" by Tomas Pfister (University of Oxford), James Charles (University of Leeds), Mark Everingham (University of Leeds), Andrew Zisserman (University of Oxford)

Best Impact Paper

"PMBP: PatchMatch Belief Propagation for Correspondence Field Estimation" by Frederic Besse (UCL), Carsten Rother (Microsoft Research Cambridge), Andrew Fitzgibbon (Microsoft Research Cambridge), Jan Kautz (UCL)

Mark Everingham Prize for Rigorous Evaluation

"Tom-vs.-Pete Classifiers and Identity-Preserving Alignment for Face Verification" by Thomas Berg (Columbia University), Peter Belhumeur (Columbia University)

Best Poster

"Real-time Learning and Detection of 3D Texture-less Objects: A Scalable Approach" by Dima Damen (University of Bristol), Pished Bunnun (National Electronics and Computer Technology Center, Bangkok), Andrew Calway (University of Bristol), Walterio Mayol-cuevas (University of Bristol)

Best Demo

"Online Feedback for Structure-from-Motion Image Acquisition" by Christof Hoppe (Graz University of Technology), Manfred Klopschitz (Graz UoT), Markus Rumpler (Graz UoT), Andreas Wendel (Graz UoT), Stefan Kluckner (Siemens AG, Austria), Horst Bischof (Graz UoT), Gerhard Reitmayr (Graz UoT)

Best Video

"Automatic and Efficient Long Term Arm and Hand Tracking for Continuous Sign Language TV Broadcasts" by Tomas Pfister (University of Oxford), James Charles (University of Leeds), Mark Everingham (University of Leeds), Andrew Zisserman (University of Oxford)

Sullivan Thesis Prize

"Deformable and Articulated 3D Reconstruction from Monocular Video Sequences" by Dr Marco Paladini (Queen Mary, University of London).

BMVA Distinguished Fellow 2012

Professor John Illingworth
University of Surrey

   Dr K. Mikolajczyk
   University of Surrey
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Report on ICRA 2012

ICRA 2012 was held in Saint Paul, Minnesota.

The International Conference on Robotics and Automation, ICRA 2012, is the premiere annual academic conference for the robotics community and this year it was held during 14–18 May, in the city of Saint Paul Minnesota, USA. The city, twinned with Minneapolis on the other side of the Mississippi, is characterised by modern high-rise buildings overlooking the river. The conference took place in the River Centre – a well-known exhibition centre – and was organised by the University of Minnesota in conjunction with the IEEE robotics and Automation Society.

Contributions to the conference were solicited as either papers or videos, following which 2040 papers and 30

videos were submitted. 40% of these, totalling 816, were accepted for publication. Two types of presentation were chosen – oral and interactive, with the latter introduced this year as a new modality. The organisers highlighted that rather than the quality of the publication, the modality chosen for any paper reflected the most suitable mode of presentation for that paper based on the reviewers' feedback. For instance, those works whose contributions involved the demonstration of a device, system or equipment were suggested for interactive sessions, whereas the rest of the papers were allocated as part of parallel tracks of oral presentation. Each oral presentation was allocated 15 minutes of time, while interactive ones were allocated 30 minutes. 9 parallel tracks of oral presentations were organised based on specialised topics, in tandem with a single track for interactive presentations.

On the day preceding the conference, the social reception was organised for two groups – one for students and the other for non-student delegates. The student reception was highlighted by a brilliant presentation from special guest Jorge Cham – creator of the very popular PhD Comics (Piled Higher and Deeper). Apart from building an effortless rapport with the student community, his roots in the robotics community made for a positive, engaging, creative and fun talk.

Jorge Cham at the student reception.

The conference commenced on Tuesday 15 May with several oral presentations running simultaneously with the interactive sessions. All the presentations in both modalities have been recorded and will soon be available on http://techtalks.tv.

With the umbrella of robotics as its theme, the conference covered a wide range of topics which included manipulation, medical robotics, automation, service robots and vision. As it always is with parallel track conferences, some interesting sessions were missed for the sake of others. With our background in vision, we focussed our attention on sessions that involved the use of vision in robotics. The keynote lecture for Tuesday was delivered by Professor Brad

Nelson from the Department of Robotics and intelligent Systems, ETH-Zürich. The lecture motivated research into nanotechnology, particularly micro- and nano-robots for medical treatment. The talk covered the state of the art in this field, open challenges and opportunities for business. An intriguing paper in one of these sessions, also a finalist for best conference paper, was entitled *Efficient Scene Simulation for Robust Monte Carlo Localisation using RGB-De Camera* by Maurice F. Fallon and his team at MIT. The paper proposes a new Monte Carlo based method for indoor localisation using a Kinect sensor, and also presents extensive tests in various realistic scenarios.

The conference during one of the plenary sessions.

The keynote lecture on Wednesday, delivered by Professor Harry Asada, delved into the use of cultured live tissue and muscle as components for building robots. Professor Asada highlighted the potential of this work by presenting recent work on optogenetics, culturing muscle constructs, and the control of populations of cells and micro-tissues. The day was rounded off with the Conference Banquet held in the Great River Ballroom – a truly relaxing and enjoyable evening.

On Thursday, apart from the oral and interactive sessions, IEEE RAS awards were presented for the best papers at the conference at a specially organised lunch. The paper by Masaya Hagiwara et al., *High Speed Microrobot Actuation in a Microfluidic Chip by Levitated Structure with Riblet Surface*, was adjudicated as the best conference paper, while the paper by Michael J. Milford and Gordon Wyeth bagged the best vision paper award for SeqSLAM, *Visual Route-Based Navigation for Sunny Summer Days and Stormy Winter Nights*. The latter proposes a novel method for navigation under aggressive changes in the environment such as change of weather (summer, winter) and time of day (morning, night). The method is based on local matching of features within a short sequence of images in order to correctly match the current observed location with those previously stored in the dataset. The keynote lecture of the day was delivered by Professor Jun Ho Oh from the Department of Mechanical Engineering at the Korea Advanced Institute of Science and Technology (KAIST). The talk focused on a technical description of the humanoid robot Hubo II, developed by Professor Oh and his team at KAIST. Finally, the conference was brought to a close with a Farewell Reception held at the Roy Wilkins Auditorium.

Robotic exhibitions during the conference.

Any edition of ICRA is incomplete without its mind-blowing exhibition sessions that allow leading companies in the field to showcase their products. The exhibition opened on Wednesday 16 May and carried on until the end of the conference at the Roy Wilkins Auditorium. Among those who showcased their latest work were Willow Garage and NASA. With the increasing application of robotics in the realm of medicine, the Da Vinci robot stood out for its purpose of minimally invasive surgery. The robot allows for a surgeon to operate on small areas of the body for long hours, with the robot absorbing any shaking or tremors that the surgeon may experience due to fatigue. This year's edition of the conference also witnessed the Robot Challenge, which included an intriguing set of tasks to be performed by real robots.

Through all days of the event, the organisers had arranged for a shuttle service, for delegates to visit the other twin city of Minneapolis – well known for its baseball heritage and shopping attractions. With its mix of inspiring talks and showcased products, peppered with opportunities for networking, fun and relaxation, the International Conference on Robotics and Automation has been a great learning experience.

Our attendance at the conference has been made possible by the BMVA through its travel bursary, and we are deeply grateful for their support.

For more information on the conference, please refer to: www.icra2012.org and www.ieee-ras.org

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email: csjmc@bristol.ac.uk
Sudeep Sundaram
email: csyss@bristol.ac.uk
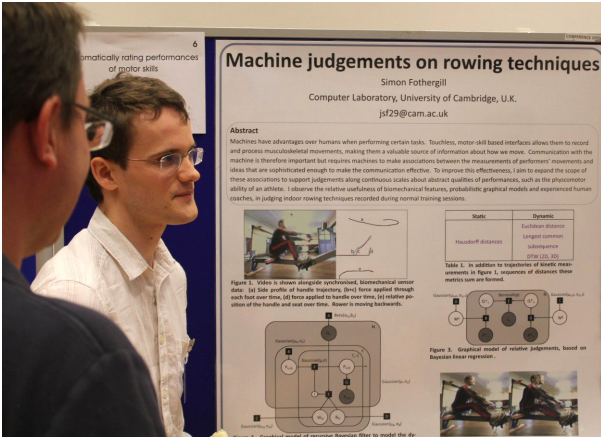University of Bristol

BMVC Workshop Activities

Workshop chair
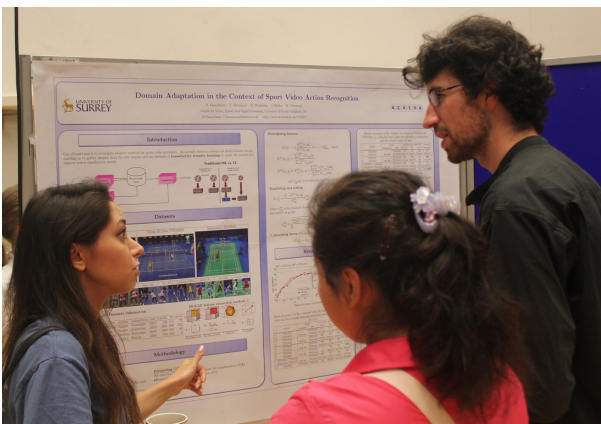
Dr Teo de Campos (University of Surrey)
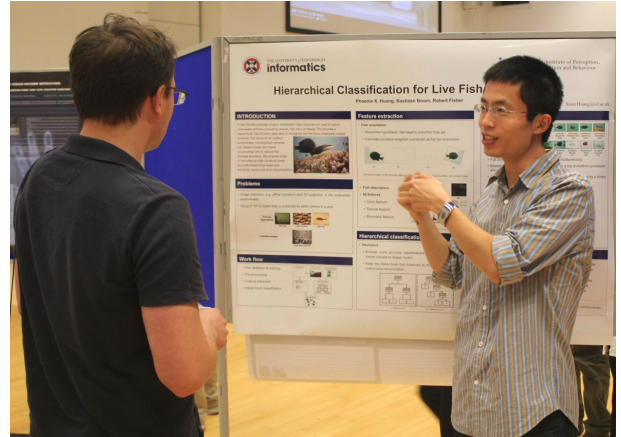
Lectures and Posters

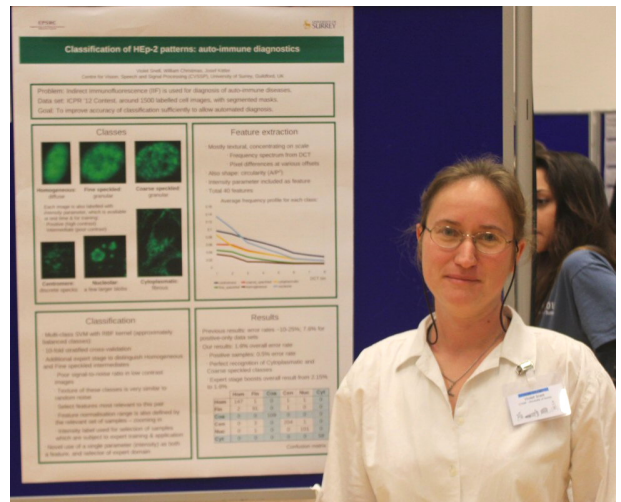Applause for Georgia Sandbach as Teo de Campos presides.

Simon Fothergill presents his poster on rowing techniques.

Nazli Faraji Davar explains her method for recognition of sport video actions.

Phoenix Huang elucidates his work on hierarchical classification of live fish.

Violet Snell with her poster on classification of patterns relating to auto-immune diagnostics.

As for the main BMVC conference, I would like to thank Tim Sheerman-Chase for providing these excellent pictures from the Workshop.

Award for Best Workshop Paper

"Simultaneous Human Segmentation, Depth and Pose Estimation via Dual Decomposition" by Glenn Sheasby, Jonathan Warrell (Oxford Brookes University), Yuhang Zhang (Australian National University), Nigel Crook, Philip Torr (Oxford Brookes University)

Workshop programme page

http://bmvc2012.surrey.ac.uk/workshopProgramme.php

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Report on BMVA Postgraduate Summer School 2012

The annual BMVA Summer School in Computer Vision was held this year at Hulme Hall in the University of Manchester during 24–29 June. The summer school has moved from being supported by EPSRC to being entirely self-funding. Notwithstanding the fact that realistic fees had to be charged, attendance was higher than ever: 58 delegates, of whom 39 were research students at UK universities, 14 from European universities and the remainder from other commercial and research organizations. The picture shows the happy group in the courtyard of Hulme Hall on a sunny afternoon between showers.

The participants: Neil Thacker (second left) is the only lecturer present.

Award of Best Poster prize to Sergei Kosov (Max-Planck-Institute for Computer Science, Saarbrücken).

The participants had a busy week of lectures on a range of current topics in computer vision, two lab sessions, a lecture on taking research into the (so called) real (i.e. commercial) world, and a highly popular poster session in which the students were able to discuss each other's work. Prizes were awarded for the best posters according to votes cast by the visiting lecturers. The (£250) Best Poster prize went to Sergei Kosov (Max-Planck-Institute for Computer Science, Saarbrücken) for "Using Active Illumination for Accurate Variational Space-Time Stereo". Roz Sandwell (University of Bristol) was awarded a runner-up prize of Professor Roy Davies's book *Computer and Machine Vision: Theory, Algorithms, Practicalities* for "Great Ape Detection". The winners are shown receiving their prizes from Andrew Fitzgibbon, BMVA chairman.

Award of Runner-up prize to Roz Sandwell (University of Bristol)

Finally, it is appropriate to include the following comments from the student feedback:

- "All in all the Summer School was a success. I met several interesting people from different parts of the world, and I'm sure I will keep in touch with them. The content was extremely useful and I am sure it will be of great use during my studies."
- "I found this Summer School very informative and important. I believe as a computer vision researcher each student must attend this school to get a huge amount of feedback about his own work and achieve great knowledge in a short period of time."
- "Maybe give it another name – 'Summer School' seems to trivialize it somewhat."
- "Overall a fantastic week. I think it is perfect for 1st year PhD students."

Please keep your eyes open for announcements about next year's summer school.

Dr James Graham
University of Manchester
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Report on IEEE World Congress on Computational Intelligence 2012

Brisbane, Australia, 10–15 June 2012

The 2012 IEEE World Congress on Computational Intelligence (IEEE-WCCI 2012) is the largest technical event in the field of computational intelligence. It hosts three conferences: the 2012 International Joint Conference on Neural Networks (IJCNN 2012), the 2012 IEEE International Conference on Fuzzy Systems (FUZZ-IEEE 2012), and the 2012 IEEE Congress on Evolutionary Computation (IEEE CEC 2012). This is the very first time that WCCI is hosted in Australia (Brisbane, a awe-inspiring city situated along the Brisbane River, and the eastern coast line of Australia). The congress, as usual, provides a stimulating forum for scientists, engineers, educators, and students from all over the world to discuss and present their research findings on computational intelligence.

A number of inspiring plenary speeches and invited lectures have been given during the congress. Of particular interest to the reporter, Professor Nikola Kasabov from Auckland University of Technology, delivered a lecture on the topic of "EvoSpike", evolving probabilistic spiking neural networks and neuro-genetic systems for spatio and spectro-temporal data (SSTD) modelling and pattern recognition. SSTD are the most common data in many domains including bioinformatics, neuroinformatics, ecology, etc. However, there are no sufficient methods to model such data, and to discover complex spatio-temporal patterns from it. The lecture focused on the development of new methods for modelling and pattern recognition of SSTD, along with their applications. Professor Kasabov also hinted that tighter integration of knowledge and methods from information science, bioinformatics and neuroinformatics would become the future directions of the research.
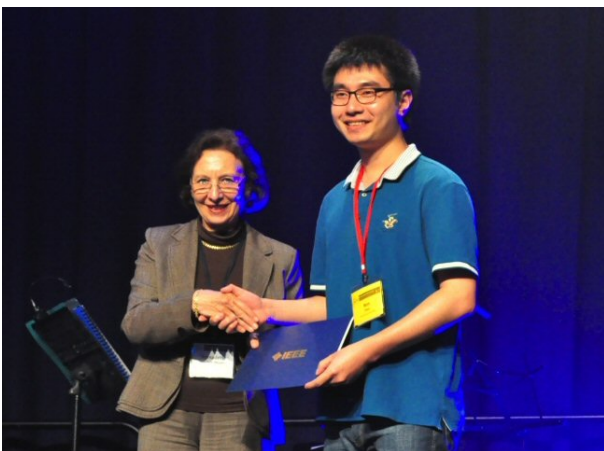

Professor Bouchon-Meunier presents the 'best student paper' award to Ren Diao.

The reporter was privileged to be awarded the "Best Student Paper Award" for the paper titled "Backward Fuzzy Interpolation and Extrapolation with Multiple Multi-antecedent Rules", co-authored by Shangzhu Jin and Qiang Shen. The work extends the existing analogy-based fuzzy rule interpolative reasoning approaches to handle reverse situations (where the consequence of the event can be observed, but some of its causes are unknown). A simulated example using the scenario of terrorist attack prediction was proposed in the paper to demonstrate the potential applications.
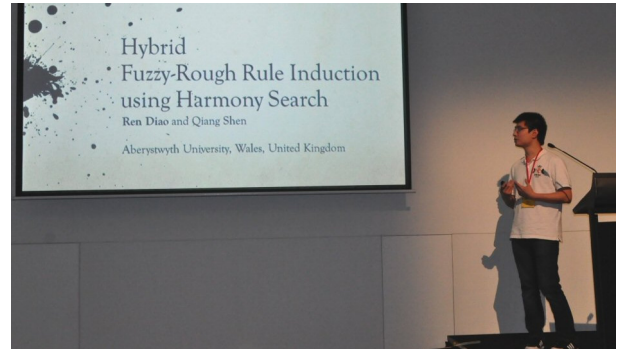
Ren Diao presents his paper during the 'Hybrid Approaches' session.

The reporter also presented the paper "A Harmony Search Based Approach to Hybrid Fuzzy-rough Rule Induction", co-authored by Qiang Shen, in the "Hybrid Fuzzy Systems" session. The combination of a newly developed evolutionary algorithm (harmony search) and the theoretical usage of fuzzy-rough set stirred the interests of the audience. A considerable amount of feedback and suggestions were received. All three conferences arranged stimulating poster presentations and attracted much attention of the attendees.
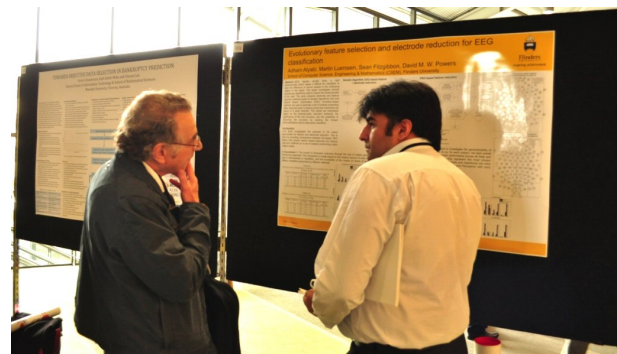
A discussion during one of the poster sessions.

This congress provided a lot of feedback on our research from the international community. Moreover, the conference also enabled us to network with people sharing similar research interests, not only to know the state of the art of fuzzy sets and systems, but also to see their views on the possible applications in pattern recognition and image analysis. Their opinions on how

problems similar to pattern recognition are being handled using fuzzy set theory provided useful insights on how our research can be developed further.

We are extremely grateful for financial support from the BMVA student travel bursary and we very much enjoyed the conference. We are confident that, with the valuable feedback gathered during the conference, our research will be significantly improved.

Ren Diao
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Promotion to Reader! – **Walterio Mayol-Cuevas**

Dr Walterio Mayol-Cuevas

Walterio Mayol-Cuevas (DPhil, Oxford) from the University of Bristol has been promoted to Reader from 1 August 2012. His research is at the intersection of real-time Computer Vision, Robotics and wearable and mobile systems. Through his collaborators he has developed a range of fast, robust methods for visual mapping and object detection and some of these have been licensed and recently commercialised, including the GazeMap software for US company ASL for the automated analysis of gaze tracking in 3D. Some other recent work includes new see-through display technology for Augmented Reality "smart windows" that was awarded best paper 'honourable mention' at CHI and a real-time, multiple texture–minimal object detector awarded best poster at BMVC. He is also the Deputy Director of the Bristol Robotics Laboratory, one of the largest facilities of its kind in the UK. He will be helping to organise BMVC 2013 in Bristol.

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Promotion to Chair! – **Paul Rosin**

Professor Paul Rosin[2]

Paul Rosin received a BSc in Computer Science and Microprocessor Systems in 1984 from Strathclyde University, and a PhD in Information Engineering from City University in 1988. This was followed by posts as: research fellow on the Alvey project "Model-Based Interpretation of Radiological Images" at Guy's Hospital, London, lecturer at Curtin University of Technology, Perth, Australia, and research scientist at the Institute for Remote Sensing Applications, Joint Research Centre, Ispra, Italy. Returning to the UK, he took up a lectureship at the Department of Information Systems and Computing, Brunel University before joining the School of Computer Science and Informatics at Cardiff University.

His research interests are wide, and include: low level image processing, performance evaluation, shape analysis, facial analysis, medical image analysis, 3D mesh processing, cellular automata and non-photorealistic rendering. Much of this work has been performed in multidisciplinary collaborations such as: the perception of trustworthiness from smiles, segmentation of 3D OCT scans of retinas, determining the effectiveness of surgery from facial morphology and temporal dynamics, analysing the effects of alcohol on crowd dynamics and violence and digitally unrolling of fragile parchments from 3D X-ray scans. He has published over 100 journal papers on these topics.

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[2] The non-photorealist rendering of Paul's portrait reflects the direction of his research – Ed.

David C. Hogg: *BMVA Distinguished Fellow 2011*

David Hogg is one of those researchers who not only does amazing work, but often did the work 20 years before anyone else. His thesis, for example, is on human body tracking in 2D images, a very hot topic in vision these days. However, he addressed the problem fully 30 years ago, on machines with clock speeds a thousand times slower than today's. Looking at his thesis, it is amazing how every chapter could be a paper in a modern vision conference: direct 3D model fitting with clever search strategies, multiple person tracking, branch-and-bound for efficiency. Later work on hand tracking, modelling from silhouettes is just as relevant today as it was when it was done.

To begin near the beginning, David studied applied mathematics at the university of Warwick in 1975, and then went to Canada, obtaining a master's in computer science from the University of Western Ontario the following year. Coming back to the UK, he took his PhD at the university of Sussex, completing in 1984. He remained at Sussex for several years, looking at a variety of AI and computer vision problems, and co-authoring the AI textbook "Computers and Thought". In 1990 he moved to Leeds, as head of the division of artificial intelligence. The group at Leeds went from strength to strength under his leadership, with hundreds of influential publications in the succeeding years. Particular favourites of mine are the deformable shape recovery work of Shen and Hogg (1994), and the deformable hand tracking of Heap and Hogg (1996). In 2000, he took on the role of Pro-vice-chancellor at Leeds, and spent four years in university administration: the vision community's temporary loss was the university's great gain. His return "to the fold" in 2005 was marked by further expansion of the Leeds group, and he co-chaired CVPR 2010. He continues to devote considerable time to his rôle as one of Leeds's three Pro-Vice-Chancellors, his office being responsible for

Research and Innovation, promoting the University's research agenda.

Everyone you talk to about David, as well as admiring the quality of his work, also describes him as one of the nicest people you could meet. He has selflessly helped many researchers in their careers (including myself), and has contributed greatly to computer vision in the UK and worldwide. For all these tremendous contributions, it is therefore my very great pleasure to announce that David Hogg is the recipient of the 2011 Distinguished Fellowship of the BMVA.

Andrew Fitzgibbon
BMVA Chair
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Book Review, *Computer and Machine Vision*

Computer and Machine Vision: Theory, Algorithms, Practicalities, E. R. Davies, Academic Press (fourth edition, 2012)

Writing a book review is quite a responsibility, and especially so when its author is a Distinguished Fellow of the BMVA, the Editor of BMVA News, and a respected colleague. Moreover, as I am a fan of the third edition of this book, I approached this review with a little trepidation: would the fourth edition live up to its reputation or, like many a Hollywood film of recent years, turn out to be a sequel too far?

I need not have worried. Spread across the 27 chapters, the book covers low- and intermediate-level vision in some depth, then explores application areas that encompass 3D vision, motion and real-time vision systems. The early chapters in particular explain the major algorithms in the vision system developer's toolbox with Roy's painstaking attention to detail. To give an example, most books that discuss threshold selection will discuss a few principles and then present Otsu's method before moving on. Roy's book devotes an entire chapter to this topic, covering a variety of approaches in enough detail that one could immediately implement the algorithm from the description and maths or from the sample code that illuminates discussions. Dipping elsewhere into the book, I found the same attention to detail in the discussion of region labelling and the Hough transform. This depth of detail is not at the expense of readability: the exposition of algorithms is well-motivated by a discussion of the underlying principles and moves at a goodly pace.

What of systems and applications? Roy is known for his work on inspecting foodstuffs and, as we would expect, case studies from this and related domains form the basis of a couple of chapters. Roy is less well-known for researching 3D vision, yet the four chapters that explore this subject form an excellent introduction to the subject, certainly suitable for (say) a graduate student to gain some knowledge before moving on to specialist books and the research literature. In fact, these chapters point the reader towards recent developments, reducing the supervisor's instructions to a new research student to "start with Roy's book and see what else he tells you to read!"

Even in a book approaching 1,000 pages in length (and 1.7 kg in weight: fortunately, there is a Kindle edition) there are some things that are less well covered. Motion analysis, for example, receives only one dedicated chapter, though there is considerably more detail on foreground–background separation, tracking and ego-motion in the chapters on surveillance and in-vehicle vision systems. Similarly, the wide breadth of statistical pattern recognition is reduced to a single chapter; given the current emphasis on machine learning in vision systems, this is arguably too terse – though there are good books that address that topic that should mesh nicely with the coverage of this book.

The bottom line for any book is whether one would buy it. I would, though I suspect my review copy will rarely be on my bookshelves: I'm sure my research students will regularly want to borrow it!

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BMVA Technical Meetings

http://www.bmva.org/meetings

Following the success of BMVC this year in bringing researchers together, the BMVA are intending to continue this through the year by looking for volunteers to chair and run 1-day technical meetings on topics within computer vision.

The meetings are important for bringing similar minds together, and speaking from experience, it is really fun and rewarding for the chairs. Any BMVA member can propose a topic and chair a relevant meeting. From professors to young researchers, alone, in pairs or even in groups.

Minimal effort is required, with the chair only needing a subject, title and "Call for Participation" to invite contributions to the meeting. Also, there is a budget for invited speakers. Finally, the chair prepares a schedule for a one-day event, and chairs the meeting on the day. All other arrangements (finances, advertisement, food, registration, room-booking etc.) will be taken care of by myself. Most meetings are held at the BCS (British Computer Society) in central London, but can be held elsewhere.

Topics are varied within the field of computer vision (Machine Learning to Human Articulated Motion, Security and Surveillance) or across disciplines (e.g. Biological and Computer Vision).

If you are interested in chairing one of the future BMVA technical meetings, do not hesitate to contact me (Andrew Gilbert) to discuss your proposal. For further inspiration, visit the BMVA meetings webpage: http://www.bmva.org/meetings for more details and example meetings.

Andrew Gilbert
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BMVA Executive Committee, 2012–2013

Following the elections that took place over the summer, we can now present the BMVA Executive Committee for 2012–2013.

Elected by Ordinary Members in September 2011:

Dr A. Fitzgibbon
Dr M. Mirmehdi
Dr S. Mahmoodi
Professor J. Illingworth
Professor E. R. Davies

Elected by Ordinary Members in September 2012:

Dr N. Thacker
Dr A. Clark
Dr T. Breckon
Dr C. Twining
Dr L. Agapito

Dr Neil Thacker
Manchester University
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A Celebration of the Life and Work of Mark Everingham

On Monday 17 September, the University of Leeds hosted an event to commemorate the recent death of Dr Mark Everingham, one of the rising stars of computer vision both in the UK and worldwide. Present were former colleagues and students of Mark's from Bristol, Oxford, and Leeds, as well as members of the UK vision community, and Mark's partner and members of his family.
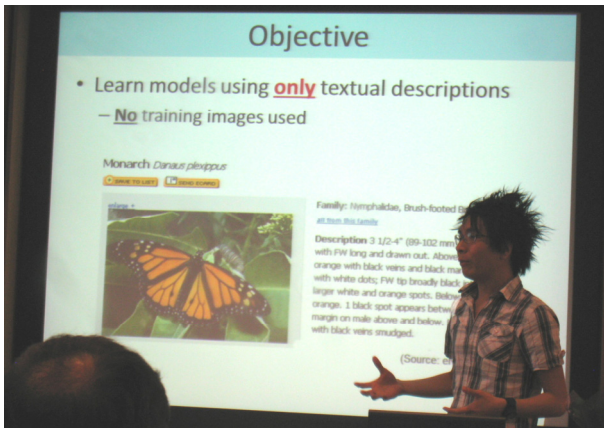
Josiah Wang, presenting PhD work he had done with Mark.

James Charles, Mark Everingham's most recently completed PhD student, gives a dramatic reconstruction of how his research progressed.

The event opened with talks describing Mark's technical achievements, starting with work for Bristol Eye Hospital which had commenced even before his undergraduate degree, and moved on to describe his contributions to segmentation evaluation, human body pose recognition through the lens of sign language recognition, and a variety of other impressive projects. All were marked by the same goals of doing something really new, doing something really useful, always knowing the literature. Mark's students were particularly amusing in describing their early encounters with a level of rigour that, although known to those who had worked with Mark, was perhaps somewhat more demanding than their earlier careers had led them to

expect. The phrase that echoed throughout was "doing things properly".

Skydiving over Byron Bay, 1998.

Mark's partner, Dr Jelena Havelka, then presented a moving personal tribute to Mark, giving an insight into a part of his life that few of his academic collaborators and admirers had seen. We saw photos of Mark skydiving, learned about his taking up of rock climbing, and his recent adoption of running, which he approached, as he did everything else in life, with the goal of doing it properly. We heard that he had recently completed a half marathon, mere months after taking up the sport. Near the end of the day, David Hogg gave a supremely eloquent speech with great feeling and depth of knowledge of Mark, having worked with him for many years.
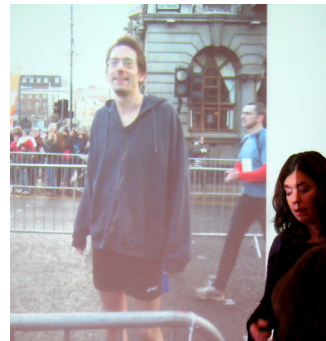
Slide of Mark in running gear, presented by Jelena Havelka. Mark's father recalling happy memories.

The day closed with Mark's father's warm and humorous speech. He thanked the academic contributors for having offered a view of Mark's career, and in turn provided us with insights into Mark's early life, including a possible explanation for his occasional objections to the colour green. All present agreed that the day had been a suitable tribute to Mark – celebrating his life and achievements and his academic rigour. One might even hope it could be said that the day was "done properly".

Andrew Fitzgibbon
BMVA Chair
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BMVC 2006 Scenes – from the BMVA News Archive

Mark Everingham makes a welcome sign of things to come – "No user involvement …".

Josef Sivic (far left) and Mark Everingham receive the Industry Prize from Mike Chantler.

Industry Prize: Mark Everingham, Josef Sivic and Andrew Zisserman (Oxford) *"Hello! My name is... Buffy" – Automatic Naming of Characters in TV Video*

I hope that these further pictorial recollections of Mark will add to the Leeds event which, though sad, proved to be upbeat, enlightening and highly appropriate.

Professor Roy Davies
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Bristol University to be Host to BMVC 2013!

The University of Bristol will be host to BMVC 2013, to be held during 9–13 September 2013, including the now well-established Student Workshop. For the first time, the accommodation will be at a hotel – close to Bristol's iconic waterside and just a 10-minute walk from the main conference lecture theatre. This break from tradition will not have an impact on the ever-reasonable BMVC registration fees. We are planning an exciting programme of events, including excellent invited speakers and a topical tutorial, and we hope to see you there!

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Call for Articles for BMVA News

Deadlines are:

- 10 March
- 10 June
- 10 September
- 10 December.

Last View of Surrey

View at Woking station, and some reflections on leaving BMVC at Surrey (see Editorial, page 1).