

BMVA News

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

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BMVA News¹ is published every three months. Contributions on any activity related to machine vision or pattern recognition are eagerly sought. These could include reports on technical activities such as conferences, workshops or other meetings. Items of timely or topical interest are also particularly welcome; these might include details of funding initiatives, programmatic reports from ongoing projects and standards activities. Items for the next edition should reach the Editor by 10 September 2012.

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Editorial: *Teaching, Learning, Experiencing ...*

It is no accident that the end of the academic year marks the start of the conference season proper, though by this time papers will long ago have been completed, submitted and accepted and camera-ready copy sent in – all this being graphically illustrated by Greg Flitton’s ‘Diary of CVPR 2012’ on page 3. However, the conference season also marks the start of the summer schools and conference tutorials that formally or informally provide intellectual input and sustenance to our graduate students.

Of course, these events last at most a few days, and can therefore only provide intellectual top-ups: the main learning and reading must already have been done in the nine or so months of the academic year. But summer schools and tutorials can be useful for (a) revision, (b) providing systematic overviews, (c) obtaining insights from other experts in the field – many of them internationally renowned in specific areas, and (d) providing more profound hands-on experience than may be available locally in students’ own institutions. Also, when initially learning subject matter, students are constrained by prior knowledge and by trivial and nitty-gritty difficulties, but when reviewing it later on, it should be possible to jerk them into a more global reassessment and realisation of the subject. Thus the student will not only learn more about his chosen topic but will accrue many more relevant facts about the whole area – e.g., the ubiquitous need for robust statistics, the emergence of hyperspectral data into the main stream, the value of Python as an alternative to Matlab, the potential of GPUs for speeding up algorithms, the accuracy of GPS, and the like.

Here I have perhaps implied that it is only graduate students who are doing the learning, but with fast-moving subjects like Computer Vision, learning is a lifelong task and indeed, a challenging problem for all. Like the other lecturers who attended my own recent BMVA Summer School lecture, I need the fillip of learning by listening to other people's talks to learn the latest subtleties of the subject as well as any newly discovered principles and methods.

There is a problem in that at undergraduate level, we all know that students go to sleep in lectures, and there is more than a tendency to file notes, unread, until 'revision' time: listening to lectures is simply not the best way to do one's learning. But graduate students and older practitioners are not in quite the same situation: they are learning a vast amount by practical project work (which will typically take well over half their work time), and they are exceptionally motivated – yet there is still the risk of their missing important nuggets of information and also of not integrating their knowledge as effectively as possible. Hence keynote lectures and tutorials at the end of the year form a valuable additional resource that overrides the well-known inefficiency of the lecture as a communication medium.

Interestingly, in recent years another form of learning for advanced workers (from graduate students and post-docs to practitioners and even professors) has been the *challenges* put out by various conferences and workshops. To put it mildly, these ask people to undertake the impossible, such as tracking in the context of multiple occlusions, or controlling uncontrollable flying robots. The list of possibilities is endless. To some extent these challenges are artificial (just as artificial as the variegated set of robot tasks I listed in my last editorial) – though why not? – as *anything* that can spur learning and progress in the subject should not be regarded as mere play or flight of fancy but as something that can be the very breath of life for the subject.

In a similar way, before the advent of public challenges, I remember finding some industrial collaborations extremely challenging, because of pressure to achieve the impossible: indeed, as a result of the industrial pressure in such cases, I found *terror of failure* to be the ultimate incentive – far more so than the usual 'carrot and stick' concept one hears about in educational circles. I can definitely report that terror is something that engenders the ultimate in lateral thinking, not a million miles from the concept of having to tear off a limb in order to escape the clutches of a possibly broken mechanical contrivance, as has happened to people in certain extreme situations. 'Challenges' are intended to provide equivalent learning experiences requiring some

element of adrenaline build-up, and are being found particularly effective and impressive in the vision context.

I ought to say that I have so far received no reports from people who have participated in such challenges, and am anxious to do so, as BMVA News is missing out in this important quarter. I am therefore planning to devote the normally lean December issue to a **Special Issue** on this topic: *all responses will be very welcome ...*

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Farewell to Ian Reid!



Within a year of receiving his promotion to chair, Ian has informed me that he is emigrating to Australia and leaving his English and BMVA life behind. While this is sad news for us, it not only takes him to academic pastures new but also back to his Australian roots. He says: "I have accepted a post as Professor of Computer Science at the University of Adelaide, starting on 17 September. I am very sad to be leaving the UK and Oxford after 24 very happy years, but delighted to be returning to my homeland just in time for ICCV! Adelaide offers me new challenges and opportunities academically, and a different lifestyle for my family". I am sure all BMVA members will join me in wishing Ian and his family 'Bon Voyage' and 'Bonne Chance', not to mention a sincere 'Au Revoir'!

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Diary of CVPR 2012

My journey to CVPR 2012 begins last year ...

Sunday 20 November 2011

CVPR paper has been finished ... All I need to do is submit it – tomorrow is the final day so I'll do it in the morning. Off to bed.

Monday 21 November 2011

Woken early with the words, "Greg! I think my waters have broken!" Run around getting things together. Driving down the A1 to the maternity unit, my mind is working overtime, trying to piece this all together. And then, tell me this is okay, I think, "I wonder if I'll be able to get my paper submitted today?"

Friday 15 June 2012

Seven months later, with a baby daughter and an accepted CVPR paper, I'm en route to Providence, Rhode Island, USA. Fly BA to Boston then catch the Amtrak to Providence. Wi-Fi on the train is new to me – Skype home. Get to the hotel then walk to the Rhode Island Convention Centre to register. Goody bag obtained, it's off for the largest steak I've eaten.



Providence town centre

Saturday 16 June 2012

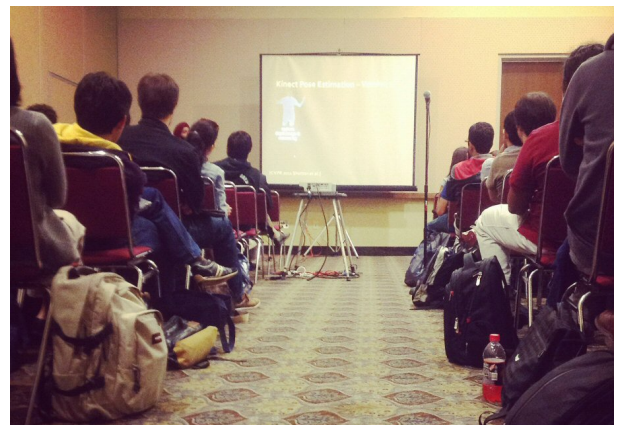
A day of tutorials and workshops. Lots of people around. Access to some tutorials is difficult – the rooms fill to the point where there are crowds outside peering in. Manage to squeeze a seat on the floor to see Pushmeet Kohli (Microsoft Research, Cambridge) discuss Kinect. Finish the day in the 'Embedded Vision' workshop: an interesting talk from Fridtjof Stein (Daimler) on computer vision in cars. "Google can get their car to work in California ... It never rains in California."



Standing room only ...

Lunch is provided in paper bags – quite a neat idea considering all the people.

Quote of the Day: "If we wanted to incorporate a radar dome in a car the first thing we'd need to do is kill all the designers."



Pushmeet Kohli's talk

Sunday 17 June 2012

In for a tutorial on using OpenCV in mobile devices. Get a free T-shirt. One problem with OpenCV is SIFT and SURF are patented. Now there's the Oriented Brief Descriptor (ORB) that's fast and not patented. Also, coming soon to OpenCV, the BRISK descriptor – fast and compact, so great for mobile implementations. A lot of the development work is done using Python – better (and cheaper) than Matlab and provides real code at the end. Android in OpenCV already, though seems a bit of a pain to use. Implementation for iOS is coming soon. ARM processors don't handle double precision well – use single precision if you can. "Good time to get into mobile. In five years you'll kick yourself if you didn't."

A break for mid-morning drinks ... Confronted by a sea of boiled eggs! Is it me, or is this a strange choice considering everyone is in small rooms?



Boiled eggs, anyone?

After lunch (gone are the bags – it’s a buffet today) listen to a talk by Hartmut Neven, Director of Engineering at Google, who looks like he used to be in a rock band – jacket, jeans, sunglasses, silver shoes. Responsible for Google Goggles, he has an interest in combining computer vision with search. Standing room only again! An increasing amount of images are being created. “Curating images is the challenge for computer vision.” He raised some interesting points regarding ‘superhuman vision’ – the use of infra-red and ultra-violet imagery to aid human vision tasks.

Quote of the Day: “on mobiles: nothing fancy’s going to work.”

Monday 18 June 2012

The conference proper starts. A lot more people here today. Ask the IEEE people – 1807 are registered for the conference. A mixture of poster sessions and talks. An interesting poster and demo using laser speckle (<http://groups.csail.mit.edu/graphics/speckle/>) catches my eye – could be used to detect objects that have been touched.



New uses for old aircraft hangers?

The first set of talks on computational photography reveals a slight problem: the venue is too noisy (air-con and echoes) with a poor audio system. Imagine holding a conference in an aircraft hangar and you get the picture. This makes it difficult to follow some of the speakers. Nevertheless there are a couple of interesting talks. Nice talk with fascinating video on a system for seeing around corners using lasers: femto-photography (<http://web.media.mit.edu/~raskar/trillionfps/>) – not something coming to the high-street soon. Then Antonio Torralba talked enthusiastically about imaging using accidental pin-holes and ‘anti-pinholes’. This was a good talk (low on maths, high on examples) that held people’s attention throughout.

At the end of every talk they ask for questions from the floor. Most of the time there are no questions (audience must be over 600), which is strange. What is the point of the oral presentations if they don’t generate questions? My solution: oral presentations should have posters too. The poster sessions seem to generate a lot of discussions. Finally, when someone does want to ask a question, the microphone doesn’t work. Epic fail, I believe the kids are saying.

Quote of the Day: “we currently have, approximately, not that many cameras.”



A buzz of activity at the posters

Tuesday 19 June 2012

Microsoft Research and ETH Zurich seem to have their names on everything!

First keynote talks. David Mumford discussed ‘Where are we in vision?’ I’m not sure. Main conclusion: overall vision system must be grammatical. The second talk was supposed to be given by Ulf Grenander but he was unable to attend (89 and still working in computer vision). A summary of his work was given (“Ulf is at least five sigma ahead of his time”) followed by the presentation of the silver medal Pioneer Award to his daughter and grand-daughter.

More posters and oral presentations. Given the complexity of their work, few oral presenters spend

enough time setting the scene. There's a tendency to dive straight in with complex maths. I used to understand maths.

In the evening is the 'Banquet'. What will it be? To be called a banquet is setting a high bar.

All is revealed: lobster for everyone. Yikes! Messy. A sizable chunk of the conference fee has gone on the food.

Quote of the Day: "I guess the rest of it's like a giant shrimp."



Lobster for everyone

Wednesday 20 June 2012

Word of the day: "Flobject" (Patrick Li, Brendan Frey) Can you put 'fl' in front of other words? 'My flobservations were flout of the flordinary', for flexample.

Keynote by Sebastian Thrun (Google): 'Self-Driving Cars'. It's all very impressive stuff, though self-driving cars are not ready to be a product – all test cars need a driver in case things go wrong (once every six months of use at the moment). Discusses other research areas as well: Google Glass (glasses with a camera in them) that one chap has been wearing all week (looks like something out of Star Trek) and Udacity (an attempt to bring education to the masses). Lots of questions after that (for a change) get curtailed (annoyingly). Has a utopian vision of car re-use (97% of a car's lifetime is spent parked, apparently) but some way off in the real world, I fancy.

My poster's in the graveyard shift: 5 pm to 7 pm. My work is on 3D CT imagery. A few people work in the same area ("I share your pain," one says to me) but most people here live in the flat world of 2D. Richard Szeliski stops for a chat – 3D moved away when the medical imaging crowd started having their own conferences. There's a poster from Oxford entitled 'Cats and Dogs' which is about, wait for it, cats and dogs. Maybe all poster titles should cut to the chase a bit more – they often seem an over-convoluted collection of keywords.

Quote of the Day: "Free yourself from copying the human brain."



Oral presentation

Thursday 21 June 2012

A final day of tutorials and workshops. Stop by the 'Frontiers of Computer Vision: Outreach and Core' workshop that discusses a variety of topics including increasing the use and reliability of Wikipedia for computer vision. Then it gets a bit surreal for me with Hartmut Neven (Google) discussing quantum computers and Anand Rangarajan (University of Florida) discussing Schrödinger's equation ("In the spirit of Schrödinger I hope to convince you that distance transforms are both dead and alive at the same time"). Feel like I've wandered into the wrong place. Half expected a Feynman diagram to appear. An interesting discussion by Alan Yuille who reported on the Frontiers in Computer Vision workshop that took place last year (www.frontiersincomputervision.com). There would appear to be plenty of things that could be improved in the world of computer vision.

Then we're off. Catch the train to Boston and a cab to Logan to get the last flight to London.

Quote of the Day: "Chances are, it'll be enormous!" (i.e., the speed increase that'll be achieved by quantum computers).

Friday 22 June 2012

So, as I sit here with the engines roaring mid-Atlantic, my views of CVPR are a little mixed. A straw poll over the week seemed to confirm that the tutorials, workshops and posters were the most stimulating areas but the oral presentations were not held in the best place – too many people in very large rooms with lots of noise. It was interesting to see who was here. Google and Microsoft had a large presence, with Facebook and eBay also visible. No sign of Apple, but they may have been here in disguise. Overall, it was an enjoyable week with plenty to stimulate the mind.

I'd like to take this opportunity to thank the BMVA for helping to fund my trip to CVPR 2012.

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BMVA Thesis Archive

In order to promote and improve access to the large base of high quality PhD research undertaken in Computer Vision in the UK, the BMVA maintains an online repository. This provides a single source archive of all past, current and future PhD work undertaken in this area in UK academic institutions.

The service allows students to quickly and easily share the results of their work with the Computer Vision community, nationally and internationally, and it is a useful database for searching and reviewing previous PhD research work undertaken in the UK.

The real value of this service can only be realised if the UK community support the effort and so the BMVA would like to encourage all members of UK academic institutions to contribute material to the repository. Contributions are required to be in PDF format and supplements such as videos and images are welcome.

The PhD repository can be accessed through the main BMVA website (www.bmva.org). If you have any problems submitting your thesis to the repository please contact Aphrodite Galata.

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BMVA Meetings Organisers Needed

I have recently taken over the role of BMVA Meetings Secretary, and we are currently seeking volunteers to chair meetings for the academic year 2012–13. Any BMVA member can propose a topic and chair a relevant meeting. From professors to young researchers, alone, in pairs or even in groups. This volunteering task is not only important for the success of the meetings, but also very beneficial for the chairs themselves, as it provides them with valuable experience and visibility.

Fortunately, chairs' duties are not hard. Initially, they need to propose a suitable topic to myself, the BMVA Meetings Secretary. Once their proposal is accepted, they have to prepare a "Call for Participation" to invite contributions to the meeting. At the same time they may want to personally invite speakers (BMVA has a budget for their expenses). Then, they need to prepare a schedule for a one-day event. Finally, they will chair the meeting on the day.

All other arrangements (finances, advertisement, food, registration, room-booking, etc.) will be taken care of by the BMVA and by myself.

Previous meetings have been diverse, from Machine Learning to Human Articulated Motion, Security and Surveillance or cross disciplines, e.g., "Biological and Computer Vision".

While the majority of the meetings are hosted in Central London, they may take place anywhere in Britain. For instance, a few years ago a "Facial Analysis and Animation" meeting took place in Edinburgh and proved very successful (that was also attributed to the enthusiasm of the chairs – a group of four young researchers).

Chairing is an important task for the success of the BMVA technical meetings and is also rewarding for the chairs themselves. If you are interested in chairing one of the future BMVA technical meetings, do not hesitate to contact me to discuss your proposal. For more inspiration, visit the BMVA meetings webpage (<http://www.bmva.org/meetings>) for more details and example meetings.

Dr. Andrew Gilbert
BMVA Meeting Organiser
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BMVC 2012 – Registration Open

The conference will take place at the University of Surrey, UK on 3–7 September 2012.

The British Machine Vision Conference (BMVC) is one of the major international conferences on machine vision and related areas. Organized by the British Machine Vision Association, the 23rd BMVC will be held in Guildford UK, at the University of Surrey. BMVC is a single track meeting with oral and poster presentations and will include two keynote presentations and two tutorials. The conference will also have company exhibits and a demonstration session.

Topics include, but are not limited to:

- Statistics and machine learning for vision
- Stereo, calibration, geometric modelling and processing
- Person, face and gesture tracking
- Object and activity recognition
- Motion, flow and tracking
- Segmentation and feature extraction
- Model-based vision
- Image processing techniques and methods
- Texture, shape and colour
- Video analysis
- Document processing and recognition
- Vision for quality assurance, medical diagnosis, etc.
- Vision for visualization, interaction, and graphics



Guildford Cathedral seen above the University Campus

Important Dates

- 6 July 2012 Author notifications
- 13 July 2012 Workshop submissions due
- 1 August 2012 Camera ready papers due
- 6 August 2012 Demo submissions due
- 3–7 September 2012 Conference

Conference organisers

- Conference Chair Prof. Richard Bowden
- Conference Chair Dr. John Collomosse
- Conference Chair Dr. Krystian Mikolajczyk
- Local Organisation Prof. John Illingworth
- Conference Management Dr. Helen Cooper
- Student Workshop Chair Dr. Teofilo de Campos
- Demo Chair Dr. Fei Yan

Invited Speakers

- Prof. Jiri Matas, Czech Technical University, Prague
- Prof. Stan Sclaroff, Boston University, US

Tutorials

- Large-scale and larger-scale image search
Dr. Herve Jegou, INRIA RENNES, France.
- MAP inference in Discrete Models
Dr. Pushmeet Kohli, Microsoft Research, UK



Another campus view

4th UK Computer Vision Student Workshop

The BMVC Student Workshop will take place on Friday 7 September 2012, the day after the main BMVC conference. This workshop gives students in computer vision an opportunity to network and start collaborations at early stages in their research careers. The workshop will be single-track containing both oral and poster presentations plus an invited talk. The proceedings will be included with those of the main conference; all oral presentations will be recorded and

made available at VideoLectures.net. All accepted papers for the workshop will be published digitally in USB sticks provided at the conference and on-line at the BMVA website:

<http://bmvc2012.surrey.ac.uk/workshop.php>

Submission deadline: 13 July

Demos and Videos

BMVC is accepting both live demonstrations and precompiled videos showing the effectiveness of computer vision methods. These are not limited to methods described in papers appearing at BMVC 2012. Commercial products should be presented as part of the exhibits rather than as demonstrations or videos (please contact Conference Management for exhibiting details). Demos and videos will be selected based on the degree of appropriateness for BMVC. Accepted demonstrations will be held concurrently with the poster sessions and videos will be shown throughout the conference. Full details are available via the website:

<http://bmvc2012.surrey.ac.uk/cfp.php>

Submission deadline: 6 August

Reception and Banquet



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This year BMVC will have its reception at Guildford Cathedral on Tuesday evening. The cathedral stands atop Stag Hill, overlooking the university campus, and is a short walk from the conference venue. The Wednesday evening banquet will be held at Brooklands, the birth place of British motorsport. Many technological achievements in both motorsport and aviation have their origins in or around Brooklands. Prior to the conference dinner there will be opportunity for BMVC delegates to tour the Brooklands museum, to view a wide range of Brooklands-related motoring and

aviation exhibits ranging from giant racing cars, motorcycles and bicycles to a multitude of aircraft including Concorde.

Registration

Registration is now open via the website:

<http://bmvc2012.surrey.ac.uk/>

Fees	Early (< 31 July)	Late (≥ 1 August)
Residential	£475	£525
Non-residential	£375	£425

The BMVC 2012 registration fee includes:

- Access to all sessions.
- Book of abstracts and full proceedings on USB.
- Free access to tutorials on Monday.
- Free access to student workshop on Friday.
- Tea and coffee refreshments on all days.
- Lunch on Tuesday and Wednesday.
- Conference reception on Tuesday.
- Conference banquet on Wednesday evening.

The residential rate also includes:

- Accommodation on Monday, Tuesday and Wednesday nights.
- Breakfast on Tuesday, Wednesday and Thursday.
- Dinner on Tuesday before the reception.

Accommodation on the Thursday night is available for £40.

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Report on IRS 2012

The 13th International Radar Symposium, IRS 2012, took place on 23–25 May 2012 in Warsaw, Poland. Since the output of most radar systems is a signal which can be converted to an image and then various image and vision processing techniques can be applied, the content of this conference will be of interest to the BMVA community.



One of the iconic landmarks of Warsaw

Warsaw is a city which is more than 700 years old and has been the capital of Poland since 1596. Warsaw is also the largest city in Poland and its science works in conjunction with both culture and industry. The conference was organised by Warsaw University of Technology, the Military University of Technology and the Polish Academy of Science, in cooperation with Hamburg University of Technology and the German Institute of Navigation. The conference is also sponsored under the auspices of the IEEE.



Sofitel Warsaw Victoria hotel, venue of IRS 2012

The conference was held at the conference centre of the Sofitel Warsaw Victoria hotel. It was held as part of the Microwave and Radar Week 2012 (MRW 2012) and a total of over 400 presentations from 43 countries were

accepted. The conference brought together the worldwide community of radar researchers and experts and allowed the discussion of contributions in civilian as well as military application areas. For the IRS, the strong 36-member committee conducted a multi-stage blind review process, so as to maintain a high standard. The acceptance rate for the conference was only 30 percent. The conference only accepted papers that presented new and novel techniques. All the accepted papers were nominated for oral presentations and a number were assigned to poster sessions. The oral presentations were divided into a number of application areas and most of these had image and vision processing techniques applied to them.

The conference started with a tutorial day on Tuesday 22 May, followed by the opening session on Wednesday 23 May and the main conference lasted until midday on Friday 25 May. There were 3 tutorials, 2 topics in the opening session, 87 oral presentations, 20 poster sessions, 2 vendor presentations and a final session during the closing ceremony.

Two of the tutorial sessions, ‘Automotive Radar’ and ‘High-Frequency Surface Wave Radar for Coastal Monitoring’, were particularly interesting. The first tutorial presented by Professor Dr. Herman Rohling (Technical University Hamburg-Harburg, Germany) presented a radar system integrated into a vehicle to protect vulnerable users by a target recognition scheme in any urban scenario. One of the main objectives of the method is to differentiate between laterally moving vehicles and pedestrians in terms of feature extraction and classification. The next tutorial I found interesting was presented by Dr. Anna Dzvonnokovskaya (Institute of Telecommunications, Hamburg University of Technology). She presented a radar system used in the monitoring of coastal environments and as a tsunami early warning system. The system can also generate images to help with monitoring.

The opening session by Dr. I. Montiel-Sanchez was particularly relevant for my application domain because he presented an overview of the European defence agency and detailed the radar research undertaken and the technical challenges faced. He also outlined the image processing techniques used by researchers at the agency. The second of the opening sessions was presented by Professor A. Stateczny (Maritime University of Szczecin, Poland). He outlined research on optimizing multiple and neural filters by using Monte Carlo simulations to help captains manoeuvre their ships. He also detailed an Automatic Radar Plotting Aid which improved the quality of tracking. A multiple model neural filter which includes the possibility of adjusting and optimising the results was also demonstrated.

Amongst the oral presentations, a number stood out from the crowd. I found the paper entitled ‘Investigation on the Aperture Size for SAR Focusing of Subsurface Targets’ by B. Panzer *et al.* (Otto-von-Guericke University Magdeburg, Germany) very useful and interesting. Here the presenting author detailed the Synthetic Aperture Radar (SAR) focusing technique to enhance the spatial resolution (resolution in cross track direction in the plane parallel to the air–soil interface) on the raw radar data. The technique replicates a large aperture based on consecutive measurements of a physical antenna which has a smaller real aperture. He concluded by saying that a small real aperture gives better SAR focussing results.

Another interesting oral was the paper entitled ‘Latest MetaSensing ground, airborne and space borne SAR developments’ by A. Meta *et al.* (MetaSensing B.V., Noordwijk, The Netherlands). The authors gave a detailed overview of the unique sensor solutions and high resolution radar mapping. It was particularly interesting to note that these techniques were also extended from airborne to spaceborne and ground-based approaches. They first presented a polarimetric approach which showed how polarimetry adds more information to radar imaging and that it could be used for classification on the basis of the different scattering mechanisms from different parts of the observed scenery. They also presented a novel sensor, the fast Ground-Based Synthetic Aperture Radar, which applied airborne SAR techniques such as polarimetry.

Poster sessions were held during the lunch and coffee breaks on Thursday 24 May and this allowed authors of oral presentations to have a chance to see poster sessions and vice versa.



The author presenting his talk

My talk on Thursday was entitled ‘A 2D processing algorithm for detecting landmines using Ground penetrating radar data’. This paper written along with

my supervisor Dr. W.P. Cockshott presented an algorithm called the SIMCA (‘SIMulated Correlation Algorithm’) which is a technique that carries out correlation between the ground-penetrating radar (GPR) trace recorded in the field and the ideal trace obtained by carrying out a GPR simulation. The technique is able to remove the cluttered mass of curves and interference patterns that cannot be easily interpreted if not processed. The technique therefore uses image processing techniques to improve the detection of landmines using GPR: such a technique is very important because of the continuing hazard that landmines have on civilians and the military.

Interesting posters were entitled ‘Front–side-looking SAR imaging’ and ‘Some reflections of near-space low-speed SAR imaging’, which further developed some of the approaches outlined in the oral presentation outlined above.

The networking was accomplished via discussion during coffee breaks and also during the conference barbecue. The afternoon of Wednesday 23 May was left free and some of the delegates went around the city and discovered Warsaw.

The conference ended on Friday 25 May with a closing session presented by Dr. Fiengo of National Instruments (NI). He gave an overview of the financial and sales forecasts of NI. Furthermore, for those involved with image processing in radar applications, he presented the NI LabVIEW graphical software system.

The invited talks and oral and poster papers will appear on the conference website <http://www.mrw-2012.pl> and on IEEE Xplore. The next (6th) Microwave and Radar week (MRW 2014) will be held in Lviv, Ukraine on 16–21 June 2014. The International Radar Symposium 2013 will be held in Dresden, Germany on 19–21 June 2013.



Other Warsaw landmarks

Finally, I would like to thank Dr. Adrian Clark for his help and the BMVA for funding my attendance at this conference.

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Travel Bursaries for International Conference Attendance

The BMVA provides a number of travel bursaries for student members of the BMVA who are research students at UK institutions to present their work at significant international conferences within the BMVA's remit. The maximum amount of a bursary is £750. In return for the bursary, students are asked to write a conference report for BMVA News – most of the conference reports you read in these august pages are from students who have received bursaries – or do some work for the BMVA website. Details on eligibility and the application procedure are outlined on the BMVA website.

Dr. Adrian Clark
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BMVA Distinguished Fellow 2013 – Call for Nominations

The BMVA Executive Committee seeks nominations for the *Distinguished Fellow 2013* 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 Professor Roy Davies, Chair of the Distinguished Fellow Award Panel, by 1 September 2012.

Professor Roy Davies
Chair, Distinguished Fellow Award Panel
email: e.r.davies@rhul.ac.uk

16th Annual MIUA Conference



The 16th annual MIUA Conference will be held in Swansea on 9–11 July 2012.

Call for participation: registration open, May 2012

MIUA is the principal UK forum for communicating research progress within the community interested in image analysis applied to medicine and related biological science. The meetings are designed for the dissemination and discussion of research in the expanding area of *medical image understanding and analysis*. This area is notable for its range of research communities, and the meeting aims to encourage the growth and raise the profile of this multi-disciplinary field by bringing together the various communities.

MIUA 2012 is a single-track conference with oral and poster presentations. All accepted contributions will be published and the full proceedings will be available to delegates at the conference. It is intended to publish selected papers in the Annals of the BMVA.

Paper topics

Technical contributions will cover the usual imaging areas, and the following medical ones:

- Analysis of Cellular, Cardiac and Functional Images
- Computer-Aided Pathology/Radiology/Surgery
- Decision Support
- HCI and Image Guided Intervention
- Intelligent Imaging Systems
- Multi-Modality
- Novel Imaging Methods and Data Fusion
- Systematic Testing & Validation
- Tissue Perfusion
- Virtual Reality
- Visualisation.

Keynote speakers

- Professor Alison Noble (Oxford University, UK), <http://www.ibme.ox.ac.uk/biomed/peoples/alison-noble>
- Professor Guang-Zhong Yang (Imperial College, UK), <http://ubimon.doc.ic.ac.uk/gzy/m365.html>

- Professor Daniel Alexander (UCL, UK),
<http://www.cs.ucl.ac.uk/staff/d.alexander/>
- Professor Nassir Navab (Technische Universität München, Germany),
<http://campar.in.tum.de/Main/NassirNavab>

Conference tutorial

The half-day conference tutorial should be particularly beneficial to research students and early career researchers. Professor Nikos Komodakis (University of Crete, Greece: <http://www.csd.uoc.gr/~komod/>) will deliver the tutorial on 9 July 2012 on the topic “Discrete graphical models for medical image analysis: inference and learning methods”.

Important dates

Early registration deadline: 1 June 2012
 Conference tutorial: 9 July 2012
 Main conference: 10–11 July 2012

Conference website

For further details on all aspects of the conference including details of the invited speakers and the tutorial presenter, see the conference website:

<http://miua2012.swansea.ac.uk>

Dr. Xianghua Xie (Conference Chair)
 Swansea University
 email: miua2012@swansea.ac.uk

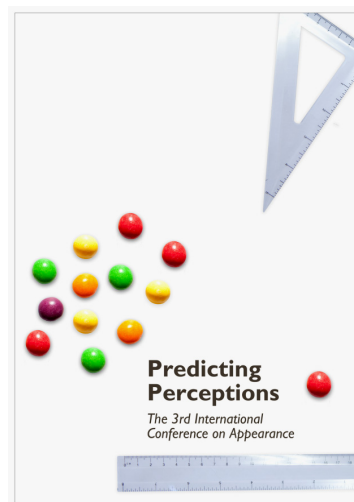
Predicting Perceptions 2012: 3rd International Conference on Appearance

On 17–19 April 2012, the 3rd International Conference on Appearance was held at Heriot-Watt University. The conference addressed appearance in its broadest sense and garnered papers from a wide variety of research areas, leading to a truly cross-disciplinary meeting of researchers and industry experts from around the world.

The conference followed on from the two previous, highly successful conferences in Ghent and Paris that attracted researchers from a wide variety of backgrounds. The conference was sponsored by The BMVA, the Heriot-Watt University Innovative Manufacturing Research Centre (HW-IMRC), the Applied Vision Association (AVA) and The Colour Group.

The first invited talk was given by Professor Laurence T. Maloney from the Department of Psychology at New York University on predicting surface colour perception in 3D scenes. The second invited talk was given by Professor Françoise Viénot from the Muséum National d’Histoire Naturelle in Paris on how information is transferred from the physical domain to the visual domain and how material properties are inferred from a cognitive interpretation.

Throughout the two and a half days there were 60 oral and poster presentations in various themes including perception of scenes, stuff, gloss, objects, materials, vision, food, light, and colour. Over 100 researchers attended the conference and the organisers hope that it will stimulate further collaborative research which will be particularly relevant to both the RCUK ‘Digital Economy Theme’ and the core ICT theme ‘Towards an intelligent information infrastructure’.



<http://www.amazon.co.uk/Predicting-Perceptions-Proceedings-International-Conference/dp/147166869X>

Proceedings are available as a printed book on Amazon and accessible online (see above figure). For more information please visit the conference website:

<http://www.perceptions.macs.hw.ac.uk>

For news and future conferences details please register to our IAM Newsletter (International Appearance Maillist):

<http://www.macs.hw.ac.uk/texturelab/iam/>

Professor Mike Chantler
 Heriot-Watt University
 email: m.j.chantler@hw.ac.uk

Congratulations, Professor Davison!



Andrew Davison received a BA in physics and the DPhil degree in computer vision from the University of Oxford in 1994 and 1998, respectively. He undertook his doctorate with Professor David Murray at Oxford's Robotics Research Group, where he developed one of the first robot simultaneous localisation and mapping (SLAM) systems using vision. He then spent two fantastic years as a European Union (EU) Science and Technology Fellow at the National Institute of Advanced Industrial Science and Technology (AIST), Japan, where he continued to work on visual robot navigation.

In 2000 he returned to the University of Oxford as a Postdoctoral Researcher working with Ian Reid and was awarded a five-year Engineering and Physical Sciences Research Council (EPSRC) Advanced Research Fellowship in 2002. During this time he developed the well known MonoSLAM algorithm for real-time SLAM with a single camera. He joined Imperial College London as a lecturer in 2005, where he teaches robotics in the Department of Computing and leads the Robot Vision Research Group. In 2008, he was awarded a five-year European Research Council (ERC) Starting Grant. The group's work continues to focus on the challenges in real-time, real-world 3D vision, expanding on the core problems of localisation and mapping with cameras towards a more general real-time model-based scene understanding agenda.

The wide applicability of this research in robotics and beyond into areas like augmented reality, gaming, mobile devices and automotive has been proven by strong industrial interest, and the group has ongoing links with companies in several different sectors. Recent work has been recognized with best paper awards at

ICRA 2010 and ISMAR 2011, and the best demonstration award at ICCV 2011.

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

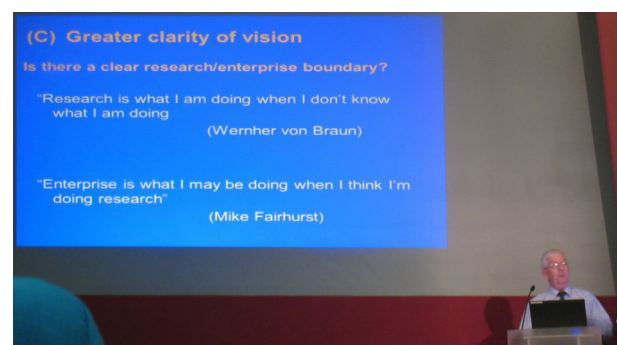
Seen at IPR 2012

IPR 2012 was organised by the IET as a 2-day conference on Image Processing, and hosted on 3–4 July at Westminster University, London. The organising committee included:

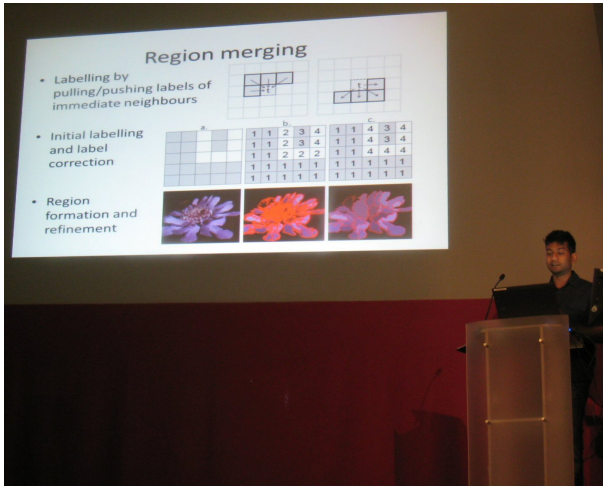
- Professor Sergio A. Velastin, Director, Digital Imaging Research Centre, Kingston University, UK: *Chairman*
- Professor Mike Fairhurst, Professor of Computer Vision, University of Kent, UK and Editor-in-Chief of the IET Biometrics Journal: *Technical Chairman*
- Professor Roy Davies, Royal Holloway, University of London, UK
- Professor Anthony T.S. Ho, University of Surrey, UK
- Professor Stephen Marshall, University of Strathclyde, UK
- Dr. Esin Turkbeyler, Roke Manor Research, UK.

(For further details see the conference website at <http://conferences.theiet.org/ipr/committee/index.cfm>)

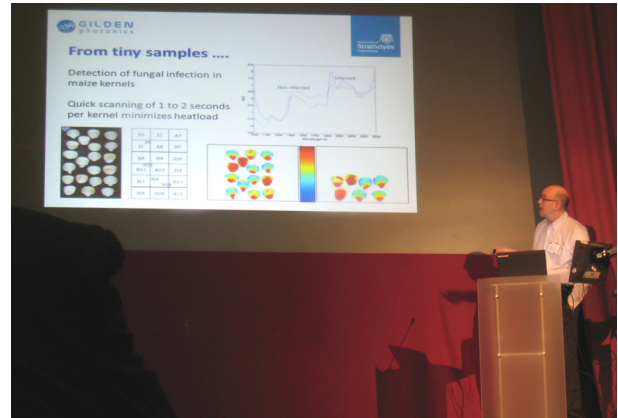
Mike Fairhurst gave a keynote address on Biometrics and discussed current problems in this area. The picture below appeals to a pseudo-definition of research once made by Dr. Wernher von Braun, the well-known rocket expert, and follows this by an interesting statement indicating that much of what is described as research involves seriously tackling industrial problems (though this doesn't necessarily imply that it isn't research).



Professor Mike Fairhurst with one slide from his keynote lecture.



Gaurav Gupta gave an excellent talk on his approach to region merging, which, while simply based, was found to beat many pre-existing methods in practical situations.

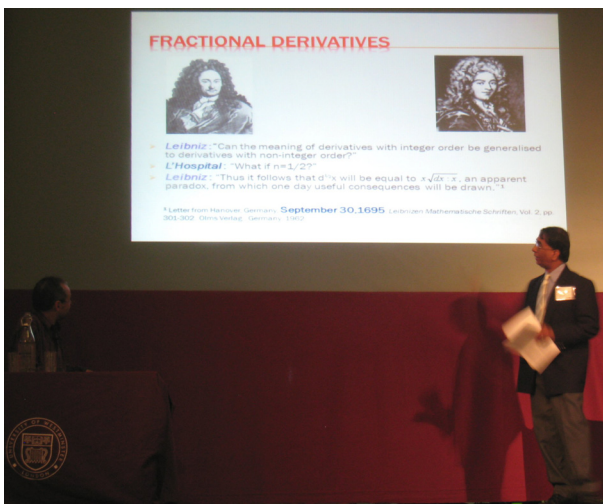


Professor Stephen Marshall presenting his wide-ranging keynote address on hyperspectral imaging.

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



Deepayan Bhowmik (right) answers a question from session chair, Anastassia Angelopoulou, on his new robust watermarking technique.



Professor V. Chandrasekaran presented a remarkable paper in which he showed that hitherto virtually unapplied fractional derivatives are able to spectacularly aid image enhancement.

STOP PRESS – Sad News²

It is my great sadness to share with you the following email from David Hogg.

“Dear Andrew

I’m very sorry to tell you the tragic news that Mark Everingham has died. His colleagues and students at Leeds are all in shock and I know that this will be echoed throughout the Computer Vision community to which he made such a huge contribution.

I would be grateful if you could forward this to the members of the BMVA. Thank you.

David

David Hogg
 School of Computing
 University of Leeds”

I would also like to add my personal praise of this singular researcher whose continual quest for rigour and accuracy has had and will have a deep and lasting influence on the field of computer vision worldwide.

Andrew Fitzgibbon
 BMVA Chairman
 email: awf@microsoft.com

²Although most members will have received this news as a Jiscmail message, it seemed necessary to include it in BMVA News in case, for any reason, some had not received it via that route – Ed.