

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 December 2011.

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Editorial: *Does Vision Need a Partner?*

Every child learns very early on that there are five senses (sight, sound, touch, taste and smell),² and it is commonly considered, with good reason, that vision is the prime of these – in that it provides by far the greatest amounts of data at any moment, and also the greatest data rates taken over time. All this is so in spite of early processing by the eye, which reduces the redundancy of the visual data by around two orders of magnitude (the retina contains ~150 million rods and cones, whereas the optic nerve has about 1 million fibres). I remember from a story narrated to us at primary school that there is also a sixth sense (often representing danger), which in our terms must involve intelligent deduction, though it is possible that the many attempts at proving human capabilities for transmission and reading of thoughts might one day confirm that alpha waves or other phenomena can be picked up from afar. And why not? After all, homing pigeons and many other birds seem able to perceive things we cannot, possibly via variations in the Earth's magnetic field. Furthermore, thermal sensing is nowadays a realizable fact for machine vision, while humans themselves are able to feel thermal radiation from nearby warm objects. It is also interesting to hear that certain dinosaurs must have had a phenomenal sense of smell – as evidenced by the sizes of the chambers in their skulls that housed their olfactory neural processing lobes. Similarly, dolphins have substantial ultrasonic echo-location organs; correspondingly, rats and several other rodents have quite large barrel-shaped organs devoted to analyzing the signals from their whiskers. Hence it can easily happen that individual animals may have greater parts of their brains given over to other senses than vision –

²That the sense of balance was not included in this set is an interesting anomaly.

though whether the data-rates and information content from these alternative senses rival those of human vision is obviously doubtful.

At the same time, machine vision has come a long way on its own and we are now getting to a stage wherein further progress will have to come via integration of vision with the other senses. Of course, we are used to the concept of data fusion, which arises when a number of types of visual signal are present, and also when data from robot haptic and position sensors have to be deployed. But so far, vision workers have been relatively slow at amalgamating the five main senses and particularly at bringing in language. Maybe this is because language is a high-level construct, and vision is still struggling with low and intermediate level data, but hardly reaching true high-level capability. In fact, language *lives* at high level. However, maybe I am overstating the case – for many would say that language must follow a similar path to vision in going from low to intermediate to high level; in which case they both only come together, communicate and influence each other at the high, *abstract* level. Then there is the problem of the language in which this communication takes place. Some may remember the film *Firefox*, in which Clint Eastwood's character steals a Russian plane and is instructed to "think in Russian" in order to control the autopilot. I think the clue to this sort of conundrum is that human language has evolved to permit inter-person communication, and therefore has rather narrow bandwidth, whereas that in the brain is far faster and more efficient, so it bears, and need bear, little resemblance to human language: thus a computer can be considered to think in binary but to communicate in a minor subset of English; more important, a baby can perform logical analysis related to occlusion well before it can communicate such ideas in any human language. Noam Chomsky's linguistic deep (grammatical) structures, even if nowadays outdated – though not entirely superseded – may also provide clues to the actual language of the human brain.

But I digress: introspection clearly has very limited application when it comes to assessing what is really going on in the brain. The important point is how language and vision can be related. Probably, we should consider the written and spoken word separately, as the two can probably only be related together at high level, and each can only be related to vision at high level. Anyway, there are nice examples, each having a bearing on vision tasks: one is a driver (*or* an automated driver assistance system, ADAS) *reading* road signs, which help him to follow the road and to navigate; another is a driver *talking* to the ADAS, and getting advice on how

(continued on p.15)

BMVA Annual Election

Following the rules set out in the Standing Orders of the Association, five new members of the Executive Committee were elected in September 2011:

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

The Committee also includes the following five members who were elected in September 2010:

Dr. T. Breckon
Dr. A. Clark
Dr. J. Graham
Dr. I Reid
Dr. N.A. Thacker

Professor M. Chantler takes an ex-officio place in his capacity as Treasurer of the Association.

Membership of the Association

The Company Memberships of the following were terminated following their resignations from the Committee:

Dr. M. Everingham
Dr. D. Makris

The following were appointed as Company Members following their election to the Committee:

Professor J. Illingworth
Dr. S. Mahmoodi

The updated list of Company Members has been confirmed as follows:

Dr. T. Breckon
Professor M. Chantler
Dr. A. Clark
Professor E.R. Davies
Dr. A. Fitzgibbon
Dr. J. Graham
Professor J. Illingworth
Dr. S. Mahmoodi
Dr. M. Mirmehdi
Dr. I. Reid
Dr. N.A. Thacker

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BMVC 2011 Picture Gallery

Reception



Reception at the Discovery Museum



HMS Discovery



On board

Lectures



Professor Pete Downes, Principal of the University of Dundee, opens the main conference.



David Fleet's invited talk: University Principal in foreground, Jesse Hoey and Stephen McKenna in front row.

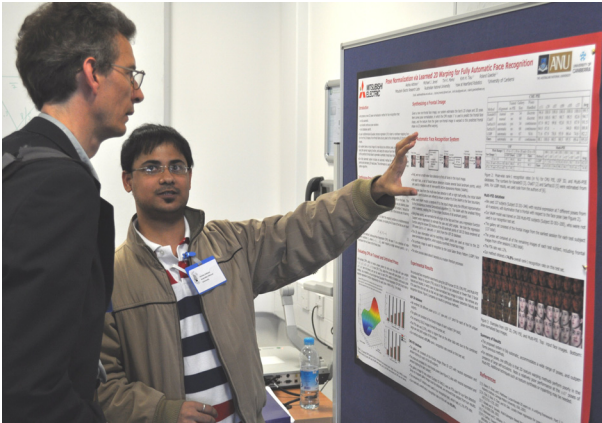


Dave Rim's talk on "Semi supervised learning for wild faces and video".

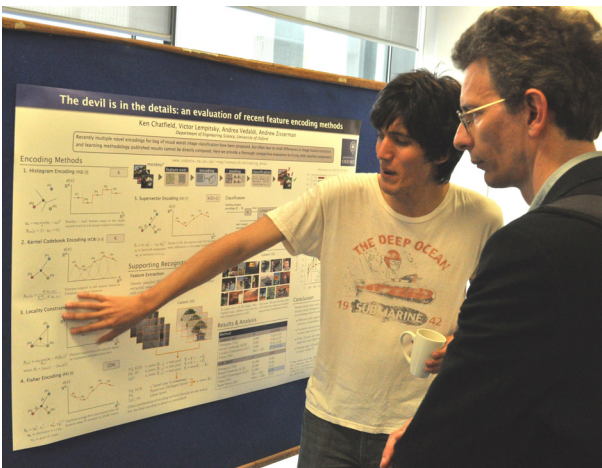


Left: Charles Deledalle giving his talk on "Image denoising with patch based PCA: local versus global". Right: Anna Hilsmann's talk on "Template-free shape from texture with perspective cameras".

Posters



Akshay Asthana discusses his poster with Tim Cootes.



Ken Chatfield discusses his poster, which was awarded an 'Honourable Mention', with Tim Cootes.



Matthias Straka (Graz) discusses his poster with Antonis Argyros (FORTH).

Conference Dinner



String quartet entertains delegates during dinner.



From left: Meng Yu (Abertay), Ben Daubney (Swansea) and Andrew Gibb (BBC R&D Group).



From left: Björn Ommer (Heidelberg), Krystian Mikolajczyk (Surrey) and Peter Eisert (Fraunhofer-Institut, Berlin)



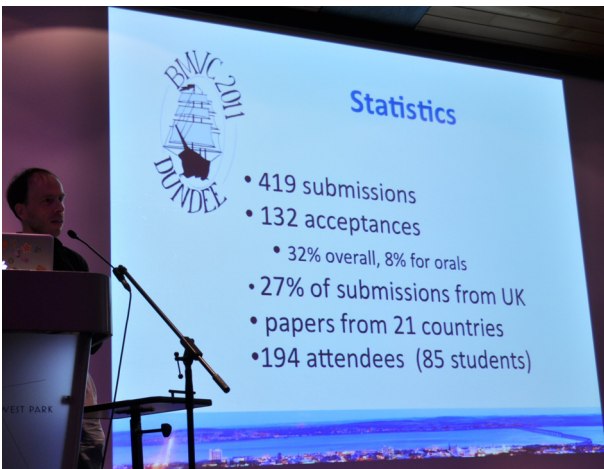
David Fleet, *Distinguished Fellow* recipient David Hogg, and Dimitrios Makris.



Left to right: Shuntaro Yamazaki, David Pfeiffer (Daimler AG), Anna Hilsmann and Falko Schindler.



Fabian Nater, Ken Chatfield, Feng Lu and Yusuke Sugano.



Stephen McKenna speaking after dinner and providing the crucial conference statistics.

Prizes and awards



Jesse Hoey presents the Best Supplementary Material award to Matthias Straka for "Skeletal graph based human pose estimation in real-time".



Ken Chatfield receiving an 'Honourable Mention' award for his poster "The devil is in the details".



Jesús Martínez del Rincón receiving (joint) Best Poster award for "Graph-based particle filter for human tracking".



Alain Lehmann receives Best Impact Paper award from Jesse Hoey for "Branch and rank: non-linear object detection".



Arpit Mittal receiving (joint) Best Poster award for "Hand detection using multiple proposals".



Hakan Bilen receives the Best Paper award for "Object and action classification with latent variables".



Top table at dinner (anticlockwise): David Hogg, David Fleet, Andrew Fitzgibbon, Zoe Brown (EPSRC), Mike Chantler, Stephen McKenna, Alex Le Bek (David Hogg's wife), Neil Thacker, Jesse Hoey (empty chair!), Dimitrios Makris.



Jesse Hoey with Conference helpers (from left): Sebastian Stein, Rafiq Almaghairbe, Khai Sing Chin, Adria Perez Rovira, Krists Zutis.



Rapt attention from the audience!



Andrew Fitzgibbon talks about David Hogg's contributions to the field. On screen are images from his 1983 IVC paper. Andrew put the stills from the paper together to make a video and presented it: the result was suitably impressive!



David Hogg receives the *Distinguished Fellow* award from Andrew.



David gives his speech.



Krystian Mikolajczyk invites everyone to BMVC 2012 in Surrey.

Student workshop



PhD students' workshop participants at School of Computing. Far right: workshop chair Jianguo Zhang. Far left: Stephen McKenna.

Finally, I would like to acknowledge Paul Gault and Adria Perez Rovira who took all the pictures and Stephen McKenna and his team for providing 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 Stephen and all his helpers for organising this highly successful and well-run conference at the University of Dundee.

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Prizes and Awards at BMVC 2011

Best Paper

“Object and action classification with latent variables” by Hakan Bilen, Vinay Namboodiri and Luc Van Gool.

Best Impact Paper

“Branch and rank: non-linear object detection” by Alain Lehmann, Peter Gehler and Luc Van Gool.

Best Poster, jointly awarded for the papers

“Graph-based particle filter for human tracking with stylistic variations” by Jesús Martínez del Rincón, Jean-Christophe Nebel and Dimitrios Makris

“Hand detection using multiple proposals” by Arpit Mittal, Andrew Zisserman and Philip Torr

with an Honourable Mention for

“The devil is in the details: an evaluation of recent feature encoding methods” by Ken Chatfield, Victor Lempitsky, Andrea Vedaldi and Andrew Zisserman.

Best Supplementary Material

“Skeletal graph based human pose estimation in real-time” by Matthias Straka, Stefan Hauswiesner, Matthias Rütger and Horst Bischof.

Sullivan Thesis Prize

Out of the three theses nominated this year there was a unanimous decision by the three reviewers that the award should go to Charles Bibby for his thesis *Probabilistic Methods for Enhanced Marine Situational Awareness*. As he couldn't be present at the conference dinner, the award was announced in his absence.

Student Workshop Prize

“Model Constraints for Non-Rigid Structure from Motion” by Lili Tao, Bogdan Matuszewski and Stephen Mein. The prize was awarded to Lili Tao at the Student Workshop. (She is the first girl from the right in the front row of the group photo at the head of the page.)

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BMVA Summer School 2011



Summer School group photograph

The annual BMVA Summer School in Computer Vision was held this year at Dalton Ellis Hall in the University of Manchester between 27 June and 1 July. Despite the fact that it was necessary for the first time to charge a participation fee to all students, including those from UK universities, the attendance level was good. 47 students took part – 26 UK-based postgraduate students, 17 from EU countries and the remainder from Israel, Korea and Japan. We seem to have a truly international reputation. The picture shows the happy group in the courtyard of Dalton Ellis Hall on a sunny afternoon. (We did have a sunny week in Manchester this year – that was it!)

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. Best poster went to Tomáš Vojtř (Technical University of Prague) for "Long term object tracking in unconstrained environment". Runners-up were Sebastian Scherer (University of Tübingen) for "Real time simultaneous localization and mapping for microaerial vehicles using RGBD sensors", and Stuart James (University of Surrey) for "Annotated sketches for intuitive video retrieval".

Some (selected) comments from the student feedback:

- "Nice overall atmosphere to get in touch with people working in a similar/related field"
- "Lecturers did a very good job in bringing the topics across"
- "Thanks for organizing! I've met cool people and learnt a lot"
- "The organisation was great, flawless, and the staff were very nice and helpful."

Please keep your eyes open for announcements about next year's summer school. We intend to hold it at about the same time. Regrettably, because of the high level of interest, we reached the space limits this year and a few students had to be turned away. We'll allow more space next year, but don't get caught out – book early!

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Report on IbPRIA 2011

The fifth Iberian Conference on Pattern Recognition and Image Analysis (IbPRIA 2011) was held in Las Palmas de Gran Canaria, Spain on 8–10 June 2011. IbPRIA is an international conference co-organised by the Spanish AERFAI and Portuguese APRP chapters of the International Association for Pattern Recognition (IAPR). IbPRIA is a single-track conference consisting of high quality, previously unpublished papers, intended to act as a forum for research groups, engineers and practitioners to present recent results, algorithmic improvements and promising future directions in pattern recognition and image analysis. The 34 full papers and 58 poster papers presented were carefully reviewed and selected from 158 submissions. All accepted papers were published in the Springer *Lecture Notes in Computer Science* Series.

The conference was opened on 8 June by Professor Jordi Vitrià (Conference Chair, University of Barcelona). He welcomed all delegates for their willingness to participate in the conference and thanked the delegates for their contributions to the conference in developing novel techniques for image processing.



The venue: Hotel Cristina-Las Palmas

Three keynote speakers shared their past and current achievements in the field of image processing. Professor Irfan Essa gave a talk entitled “Spatio-temporal video analysis and visual activity recognition”. His talk aimed at robust spatio-temporal segmentation of video and on using motion and flow to recognize and predict actions from video. Professor Marcello Pelillo discussed “Similarity-based pattern recognition: a game-theoretic perspective”. His talk focused on an important class of pattern recognition problems: data clustering. Professor Sven Dickinson showed work on “The role of intermediate shape priors in perceptual grouping and image abstraction” describing recent progress on the use of intermediate shape priors in segmenting, grouping, and abstracting shape features. Specifically, he described the use of symmetry and non-accidental attachment to detect and group symmetric parts, the use of closure to separate figure from background, and the use of a vocabulary of simple shape models to group and abstract image contours.



At the banquet

I presented my paper entitled “Automatic estimation of the number of segmentation groups based on MI” in the second poster session on Pattern Recognition (PR2). My

presentation went well and I answered several questions from the audience.

The conference was organised successfully, and everything ran well. Traditional Spanish food was served at the welcome cocktail on 7 June 2011 and the conference banquet on 9 June 2011. At the conference banquet, the Best Paper Award went to Olusegun Oshin, Andrew Gilbert and Richard Bowden for their paper “There is more than one way to get out of a car: automatic mode finding for action recognition in the wild”.

This was the first international conference that I had attended. I learnt a lot and got feedback on my research from the international community. Moreover, the conference provided me with a precious opportunity to meet people with similar research interests and to know the state of the art of information technology and applications in pattern recognition and image analysis.



Networking

I would like to thank the BMVA and the Gooding Fund for providing me with their financial support and the opportunity to attend IbPRIA 2011 and present my research.

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Report on V&L Net Workshop on Vision and Language (VL'11)

The V&L Net Workshop on Vision and Language 2011 (VL'11) took place in the brand new Huxley Building at the University of Brighton on 15 September. The chief purpose of the workshop was to bring the computer vision and language processing communities together and to facilitate community building and networking between them. It was organised by V&L Net (the EPSRC Network on Vision and Language) and endorsed by EACL (the European Chapter of the Association for Computational Linguistics) and BMVA.

The day started with two introductory invited talks that were intended to provide overviews of the computational linguistics and computer vision fields respectively. First, Professor Khurshid Ahmad (Trinity College Dublin) discussed how statistical analysis of large volumes of text facilitates learning of specialised ontologies, drawing on examples of how ontology terms are linked to visual features. Next, Professor Roy Davies (Royal Holloway) presented an introduction to computer vision, highlighting the significance of low-level feature extraction from images and videos for high-level tasks such as object and activity recognition.

The other two invited talks focused on specific cases of cross-disciplinary research between vision and language. The title of Professor Yiannis Aloimonos's (University



The University of Brighton's new Huxley Building, opened as recently as July 2011 by Professor Lord Robert Winston.

of Maryland, see picture) presentation was *Robots need language: A computational model for the integration of vision, action and language*. Specifically, he discussed an interaction model of vision and language that can boost the performance of vision tasks and lend cognitive capabilities to active robots. Professor Ted Briscoe (University of Cambridge) presented research on *Integrating textual information extraction and visual similarity search for biomedical research papers*.

The afternoon session was dedicated to the presentation of 17 posters. First, poster authors presented short 'teaser' presentations of their work. This was followed by a traditional poster session which allowed



Keynote speaker Yiannis Aloimonos takes his morning stroll on Brighton beach, within sight of the pier.



The 15th century Herstmonceux Castle in East Sussex, England.

participants to discuss the work presented in more detail and to explore opportunities for collaboration. Networking was further facilitated by pre-arranged meetings between workshop participants, and by the mini-poster board, for which all participants were invited to bring A3-sized mini-poster, presenting their research group, project or research idea.

The technical programme of the workshop was wrapped up by an informal discussion on the future of cross-disciplinary research between vision and language. The workshop was rounded off by an evening drinks reception accompanied by superb live jazz music.

Overall, the workshop provided a plethora of networking opportunities between V&L Net members and at the same time set up a technical dialogue on bridging the research areas of vision and language. Feedback from participants has been enthusiastic, as exemplified by the following two (of many) messages:

“Thanks once again for organizing the VL’11 Workshop last Thursday; it was a truly inspiring event, and I hope the first of many.”

“Thank you for the very well organized workshop, we actually had the chance to make a lot of hopefully productive contacts with other groups!”

We are currently in the process of putting all the abstracts, slides, posters and mini-posters from the workshop online (<http://www.vl-net.org.uk/VL-Workshop-2011.html>).

Upcoming V&L Net activities and developments include the member’ mailing list, the searchable database of members, and the V&L Net wiki pages going live over the next month. Planning is underway for two technical workshops on vision and language themes, to be co-located with major vision and language conferences.

Meanwhile, we have also started planning next year’s V&L Net meeting (VL’12), likely to be held in September 2012, hopefully at the beautiful Tudor castle of Herstmonceux in East Sussex (see picture). We look forward to seeing a great many vision and language researchers at VL’12!

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Book Review

Fundamentals of Digital Image Processing (A Practical Approach with Examples in Matlab), by Chris Solomon and Toby Breckon (Wiley, 2011).

The primary target for this book is undergraduate or postgraduate students and is well suited as a course text. The philosophy of the book seems to be somewhere along the lines that whilst you can spend forever reading about a topic, the best approach to really understand it is to get on and use it. This is where the combination with Matlab is of value: the theory presented in each chapter is shown implemented in Matlab.

The book makes extensive use of the Image Processing Toolbox so don't expect a very low-level "numerical recipes in Matlab" description of the work presented in each chapter. High-level image processing functions are used throughout, which forces the reader to focus on the behaviour of each method under different circumstances or settings, rather than getting involved in the exact details of the implementation.

This is also backed up by the exercises presented at the end of each chapter or on the book's website (www.fundipbook.com), which are not designed to check that the reader has been paying attention but more to reinforce and explore the material presented in each chapter.

Each new concept is well described and as such the book is valuable as a text even if Matlab is not being used. Matlab code is not randomly interspersed through the chapters and is generally reserved for the end of a section or chapter. As a guide, I'd estimate that example Matlab code takes up roughly 10% of available space.

An important question is whether the book is competing with others, such as Gonzalez et. al.'s *Digital Image Processing using Matlab*. The answer I think is "no", not because it is better or worse, but because the motivations are very different. *Fundamentals of Digital Image Processing* is not written to provide a guide on how to use the Image Processing Toolbox, but rather uses Matlab as a tool to take the ideas from the book into the lab. With the exception of the first chapter, where basic image handling functions are discussed, you get the distinct feeling that Matlab has been used to serve the book and not vice versa (i.e. the contents of the book have not been guided by the contents of the Image Processing Toolbox).

The book has 328 pages and is printed in black and white (which always seems a shame for a vision book), though the key figures are reproduced in colour on the central pages. The book consists of eleven chapters

which I will briefly (but by no means completely) describe.

The first covers the basics of how an image is represented and describes areas such as colour spaces, compression and an introduction to handling images in Matlab. Chapter 2 discusses image formation, the point spread function and image convolutions. A brief description of camera models and projections is given and different sources of image noise are discussed.

Chapter 3 focuses on operations performed on individual pixels, from basic arithmetic to topics such as Gamma correction, histogram equalization and matching. Chapter 4 covers image enhancement, describing various filtering methods for noise removal and basic edge detection.

Chapter 5 covers Fourier transforms and Chapter 6 image restoration using methods such as the inverse Fourier Transform, the Wiener-Helstrom filter and least squares. Chapter 7 discusses the geometry of shapes, introduces homogeneous coordinates, Procrustes alignment and piecewise warps.

Chapter 8 covers Morphological processing and Chapter 9 Image Features. Shape signatures and statistical moments are introduced and Principal Components Analysis is covered in some detail.

Chapter 10 discusses Image segmentation, covering split and merge and also edge detection methods, such as Difference of Gaussian and Canny edge detectors. The chapter finishes with a discussion of using Markov Random Fields for segmentation.

Chapter 11 presents methods used for classification. Linear discriminant functions are introduced as are Bayesian classifiers. Finally, AdaBoost is discussed and the K -means algorithm presented.

Overall I found the book clearly written and a good reference to have to hand. It is well designed for getting someone new to the field quickly up to speed. I lent it to an MSc project student who had the following to say: "As a foreign student who is new to this field I found it clear and very understandable, the structure of the book is well organised and the sequence of the information is good. I like the paper type of this book, maybe it is silly but glossy paper makes a reflection on my glasses." The last comment is perhaps something for all publishers to consider!

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IOP Institute of Physics

BMVA

Ophthalmic Image Analysis Workshop

First announcement and call for papers

2 December 2011, University of Liverpool, UK

The workshop is organised by the University of Liverpool and co-sponsored by the IOP Medical Physics Group, the IOP Signal Processing, Electronics and Communication Systems Group (SPECS), the BMVA and the Institution of Mechanical Engineers (IMEchE).

This one-day meeting aims to provide an opportunity for exchanges of the latest research, results, ideas, developments and applications in the area of Ophthalmic Image Analysis in an informal atmosphere. The technical program will consist of invited and contributed papers. Ample time will be left for discussions.

The workshop invites paper submissions presenting original work within a range of topics related to ophthalmic image analysis and interpretation.

Submission

Prospective authors are invited to submit full papers for oral presentation, of length 4–6 pages, including all figures, tables, and references. Authors should adopt SPIE manuscript specifications from <http://spie.org/x570.xml>

Dates

Submission of camera-ready paper: 1 November 2011

Notification of acceptance: 8 November 2011

Final date of author registration: 15 November 2011.

Registration

The registration fee is £50 for authors and delegates, and includes lunch, refreshments and a copy of the workshop proceedings.

Please direct any enquiries to Professor Asoke K Nandi.

Professor Asoke K Nandi
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Congratulations, Professor Reid!



Ian Reid received a BSc in Computer Science and Mathematics with first class honours from the University of Western Australia in 1987 and was awarded a Rhodes Scholarship in 1988 in order to study at Oxford, where he obtained a DPhil in 1991. Since then he has been employed in the Department of Engineering Science, Oxford conducting research in computer vision, where he held an EPSRC Advanced Research Fellowship (1997–2000), and a University Lectureship since 2000. In 2005 he was awarded the title of Reader and in 2010 the title of Professor of Engineering Science. With long-time colleague Professor David Murray he leads the Active Vision Group, part of the larger Robotics Research Group. His research interests include active vision, visual navigation, visual geometry, human motion capture and intelligent visual surveillance. He places an emphasis on real-time aspects of the computations, and the cross-over of vision into robotics. He has published 140 papers³ on these topics in major journals and refereed conferences, with prize winning papers at BMVC '05, '09, '10, and CVPR '08, and holds two patents (in visual tracking and measurement). His research in the areas of human motion tracking and on visual SLAM is particularly highly cited. He serves on the programme committees of various national and international conferences, on the editorial board of Image and Vision Computing and IEEE PAMI, and has led a number of EU and UK sponsored research projects.

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³Including 12 in PAMI/IJCV, 34 at ICCV/ECCV/CVPR, 29 at BMVC.

Editorial

(continued from p.2)

far away the next post office is, or whether an alternative route will allow him to visit a friend en route; another is carrying out crime scene analysis and obtaining the resulting description in legalistic language; yet another is obtaining linguistic relational descriptions of scenes in an image database in order to aid searches. Interestingly, much of machine vision as we know it has involved searches within off-camera images for objects like pedestrians or road signs (on the road), contaminants or defects (on production lines), or faces, eyes, irises, fingerprint minutiae and the like; i.e. it has involved searches for *individual types of object* as dictated by often narrow applications – yet it has had much less to do with relational description of scenes. This is largely the consequence of action-orientated processing – for who wants an ADAS to provide an elegant prose description of a scene when what is really wanted is a curt observation that a pedestrian has just come into view and has to be avoided! Nevertheless, the stage machine vision has now arrived at is one in which language has to become an exponentially increasing factor, reflecting the way vision will have to adapt to achieve HCI in the world of the future. At this point I have to reveal that these thoughts were stimulated by recently attending the EPSRC-funded *Vision and Language Network* Workshop (see page 11), where some of the talks and posters were quite novel for someone like myself who lives a largely machine vision existence. In fact, the workshop was vibrant and formative, reflecting that *V&L Net* will be an excellent network to follow for many of us: I welcome its introduction and wish it every success for the future.

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Location of BMVC 2012

At BMVC2011 it was announced that BMVC 2012 will be held at Guildford on 3–7 September 2012: it will be organised by the University of Surrey. See their website for further details “soon”:

<http://terpsichore.eps.surrey.ac.uk/index.html>

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ICDP 2011

The 4th IET International Conference on *Imaging for Crime Detection and Prevention* (ICDP 2011) will take place on 3–4 November 2011 at Kingston University, London, UK.

The full Programme is now ready. Early-bird registration will take place by 14 October. The conference website is:

<http://www.icdp-conf.org/>

This conference follows the successful IDSS (Intelligent Distributed Surveillance Systems) events held in 2003 and 2004, and ICDP 2005, 2006 and 2009, to bring together researchers, industry, end-users, law-enforcing agencies and citizens groups to share experiences and explore areas where additional research, development and better working practices are needed, and to identify possible collaboration and consider the societal impact of such technologies.

The 4th ICDP aims to create an important networking forum in which participants can discuss the present and future of image-based technologies for crime detection and prevention.

ICDP (and its predecessor IDSS) has traditionally been a special meeting point of different disciplines (computer science, social science, engineering, management, etc.) and an opportunity for a wide range of stakeholders to discuss the many different aspects of the application of imaging technologies in this socially crucial domain.

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Puzzle: what's odd about this picture?





Ceiling of the Discovery Museum (see page 3) – ideal for tests of rotational symmetry!