BMVA News

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

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Editor: Professor Roy Davies
Department of Physics
Royal Holloway, University of London
Egham, Surrey, TW20 0EX
Tel: +44(0)1784 443429
Fax: +44(0)1784 472794
email: e.r.davies@rhul.ac.uk

http://www.bmva.org/

BMVA News [1] is published every three months. Contributions on any activity related to machine vision or pattern recognition are eagerly sought. These could include reports on technical activities such as conferences, workshops or other meetings. Items of timely or topical interest are also particularly welcome; these might include details of funding initiatives, programmatic reports from ongoing projects and standards activities. Items for the next edition should reach the Editor by 1 June 2009.

Contents

[1] The British Machine Vision Association and Society for Pattern Recognition is a Company limited by guarantee, No. 2543446, registered in England and Wales. Registered Office: Granta Lodge, 71 Graham Road, Malvern, WR14 2JS. The Association is a non-profit-making body and is registered as charity No. 1002307.

Editorial: *A Bold Move into the Future*

When writing my regular editorial, my dual personality as an optimist/pessimist – or, as I would prefer to classify it, as a realist – suddenly takes over and all sorts of hopes and concerns come to mind. These vary with the time of the year, and in spring, one tends to think ahead to all the year's meetings and conferences. Then there are preparations for these, including writing conference papers, and refereeing papers that have been submitted. Refereeing itself is a big concern, because one wants one's own papers to be treated fairly, and more altruistically because one wants to help ensure fair play in any conference reviewing committee that one is serving on. Naturally, this consideration also applies to journal submissions.

From time to time I have remarked on quality of refereeing and how one can give guidance to referees to help ensure that they do a good job. Many others have also put their minds to this, but by and large the problems of inadequate reviewing remain, with all the consequences of poor quality papers being published, and meritorious ones being discarded because a wayward referee takes exception to some aspect. In part, all these problems remain because reviewing panels have to relearn all the mistakes made in earlier times and by the time they have learnt, it is too late for that particular conference; and in part they remain because judgement by committee (or minor subsets of it) will always be like a blind man looking at an elephant: i.e. there are genuine problems and there is no magic bullet for dealing with them. What is needed is a Golden Guide that is succinct, definitive and wise. Such a guide does not exist – or didn't until now, that is. Long ago I discussed the situation with Peter Rockett, who seemed

to have the right sort of wisdom, together with interesting anecdotes, but little did I realise then how all this would one day come to fruition with a splendid, suitably definitive article for BMVA News: I have much pleasure in including this in the present issue. It is the sort of article that deserves responses from readers, to be included on these pages – for what is the point of a discussion like this, which provides answers and rules, without knowing how it impacts on real people and real situations? The real people can be paper submitters, paper reviewers, editors, or others who are keen to understand the way we run things in this millennium - and for that matter how we got here and where we are or ought to be going. I would like to encourage our readers to share their thoughts and make the effort to help get these rules on the road, for the benefit of all.

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

BMVA Summer School 2010

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

This year's Summer School will be held at the Digital Imaging Research Centre of Kingston University during 12–16 July 2009. The course is residential and will cost £500.

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

For further details and registration, please point your web browser at:

http://bmvaschool.kingston.ac.uk/

Dr Dimitrios Makris
Kingston University
email: d.makris@kingston.ac.uk

Who Reviews the Reviewers?

With paper reviews becoming more variable, what can be done to get the publication process back on track?

There are few things about which academics agree – particularly in the systems engineering field. But there is one thing about which academics find common ground: reviewers.

Now when I first started publishing many years ago, the norm was to receive three of four reviews for a paper which all said pretty much the same thing. Some reviews would emphasise one thing or another would point-out a paper you had missed, but the reviews were, by-and-large, consistent. Wind forward to today and in all likelihood you will get one review that says the paper should be published with minor revisions. Another which asks for major revision. A third recommends outright rejection because the reviewer cannot see why the work has been done other than it has produced better performance. And the fourth review says, "There is much mistake in English and the paper is confuse" [*sic*]. (Lest you think that this last review is some xenophobic pastiche, these were the exact words used in a recent review I received from an IEEE Transactions.) The same reviewer also told me that I could not begin a sentence with "On the contrary". On the contrary, you can!

> *"There is much mistake in English and the paper is confuse."* [sic.]

Am I uniquely unlucky in getting these sorts of reviews? I don't think so. All my colleagues complain about "unfair" reviews. And people in other Departments and in other universities. And indeed in other countries. The almost universal comment I hear is "But they haven't read the paper!". Not so much a case of peer review as a case of pier revue. How have we come to this?

To start with some background, the first peer-reviewed scientific journal was Philosophical Transactions, first published in 1665. Interestingly, this was a profit-making venture paid for by the then secretary of the Royal Society, Henry Oldenburg, who also laid down the principles and the function of journals: *Registration* – in other words, allowing someone to lay claim to a discovery. *Dissemination*, *Archiving*, and last but not least, *Certification* – that is, assuring the scientific quality of what was published by a process of anonymous peer review.

The number of journals has grown at about 3.4% per year, a trend which has continued unbroken since

around 1700. As of 2004, the last year for which I can find a definitive figure, there were 17,700 journals.

Now if the numbers of journals have been increasing then it seems logical that the numbers of papers have increased to fill them (or more accurately, new journals are responding to demand for publication outlets). Over the period 1981 to 2002, the number of papers has grown by about 3% per annum leading to the publication of around 1.2 to 1.4 million papers a year, featuring around one million unique authors.

Why does this matter? Because each of these 1.4 million manuscripts needs three or four reviewers. And that is ignoring the probably significant numbers of papers which are rejected by one journal, dusted down and sent to another journal in the hope of 'better luck next time'. So that makes around six million reviewers a year – at the very least – needed to make the scientific publication system work. When you consider that the total number of readers of journals is estimated to lie between 10 and 15 million, the gap between the number of readers and the total number of reviews which need to be carried-out is uncomfortably small. Bear in mind, reviewing is supposed to be done by an expert in the field to assure scientific quality, the principle set-out by Henry Oldenburg. It's questionable whether there is that number of 'experts' available.

Given this scenario, it's hardly surprising that papers get sent to some reviewers who have, shall we say, a 'limited' grasp of the paper's subject matter and hence the high variability of reviews. The situation is not helped by the perhaps understandable behaviour of academics themselves. Career advancement, and, in the case of assistant professors at US universities, getting tenure and therefore having a job at all, depends on getting published. This all leads to what has been wonderfully termed the "fragmentation of studies into minimum publishable units", which I would refer to as salami-slicing. Giving-in to the pressures to salami-slice is understandable but it doesn't help the whole publication process.

So that leaves us in a situation where: (1) Journals receive large numbers of manuscripts, many of which are either of unpublishable quality or gossamer-thin slices of salami. (2) Associate editors struggle to find reviewers and frequently have to resort to people whose reviews display a woeful ignorance of the basics of the subject. To quote the title of an intriguing article on reviewing by Andrew Mulligan, "Is peer review in crisis?".[2] I think I would argue that it's in rather poor health.

[2]Published, rather curiously, in Oral Oncology, vol. 41, no. 2, pp. 135–141 (2005).

Before turning to what can be done to improve peer review, let us look at some other possible reviewing models.

First, no review at all, what you might term the Wikipedia model. My problem with this is that, just like Wikipedia, most of the material is probably correct but some is manifestly not. Oldenburg's guiding principle of the certification of published work still has a crucial role in science.

Second, open review. My guiding principle for reviewing a paper is that I will not say anything in an anonymous review that I would not say to the author's face so I am always annoyed when I feel a reviewer is abusing anonymity to be downright offensive. Some have argued that removing anonymity by telling the authors the reviewers' identities would prevent this style of reviewing, and the British Medical Journal did actually experiment with open reviews. The problem they found was that large numbers of people declined invitations to review, seemingly because they were fearful of 'revenge attacks' – "Criticise my paper, pal and I'll give your next paper a right going over" – or they didn't want to risk upsetting an author who might sit on grant-awarding panels. The very last thing we need is a smaller pool of reviewers!

Third, blind review. This is common in conferences and in principle, it should discourage dismissive reviews since a reviewer would not know if they were reading the paper of a rookie or of a Nobel-prize winner. In practice it is usually easy to guess the identities of the authors, particularly in a small research community. The preponderance of the same names in the references is usually a give-away.

> *Anonymous peer review is the worst form of review except for all others that have been tried.* – after Winston Churchill.

That leaves us with anonymous peer review as we have it now. To paraphrase Winston Churchill, it has been said that anonymous peer review is the worst form of review except for all others that have been tried. There seems nothing wrong with the principle. What is wrong is the implementation. So how can it be made to work better?

We can do little about generating more reviewers with greater knowledge, but editors can make it clear to reviewers what they expect of them. Consider: How did you become a reviewer? If you are anything like me, you published a few things and then one day, out of the blue, a request to review a paper appeared in my inbox. I was flattered, of course, that an associate editor should

think I was up to sitting in judgement on someone else's work so I duly accepted. The rest, as they say, is history. At no point, then or since, has anybody ever told me what constitutes a good review. It is just assumed that you know how to do 'it'. With increasing numbers of reviews needing to be done, it is likely that editors are soliciting reviews from people at ever earlier stages of their careers. The big danger is a vicious spiral; new reviewers coming into the process today will take as their benchmark the offensive, dismissive, superficial three line reviews that they have received in the course of publishing their own work. Hence the current situation gets worse as older reviewers drop-out of the system.

Does it affect the scientific quality of the work or is it merely the reviewer imposing their arbitrary stylistic conventions?

So what constitutes a good review? I would argue there are only two components of a review: (i) to assure scientific quality of the published work, including a test of sufficient novelty, and (ii) to check that the paper is reasonably well-structured and presented clearly. I believe reviewers should apply these tests and not much else. A review is *not* about whether you agree with the author's approach or whether you would have written it that way.

What is definitely not needed is a series of nit-picking points about style. Over the years I have had several comments from obviously American reviewers about my (sparse) use of commas – the US practice is to use far more commas than is normal in the UK. Using a lot of commas is something I personally find irksome but it is not wrong. It is just a stylistic thing and not related to the understandability of the work. On a similar theme, I had a recent review where the reviewer insisted I change all instances of "biobjective" to "bi-objective". Now of choice, I would use "bi-objective" but the first draft of the paper was written by a collaborator who used "biobjective" and it seemed very petty for me to change it. Just when does a compound word become a single word? Even "because" started of as "by cause" and became contracted over the years. Idioms are another bone of contention. For example, "We are interested to learn ..." *v.* "We are interested in learning ...". The first is the UK idiom, the second the US. The meaning of both is quite clear so why did a recent reviewer absolutely insist I change the former to the latter? The bottom line here is: Does something affect the scientific quality of the work or is it merely the reviewer imposing their arbitrary stylistic conventions? I often get whole reviews which are the latter – the science is barely mentioned – and that is not good reviewing.

Further, the process is called peer review: reviewers should treat authors with appropriate respect, even if they believe the paper to be fundamentally flawed and of no value. Two lines saying the paper is "useless" is not good enough. This has never happened to me but I have reviewed papers where the other reviewers' comments have been sent to me and I have often been appalled at the rudeness of some reviewers.

What about the growing practice of asking for more results? That's a tricky one. I have had reviewers ask for additional results which, although I grumbled at the time, has ultimately produced a stronger paper. In other cases, I have had reviewers trying to treat me as an unpaid research assistant to satisfy their idle curiosity. A major problem is reviewers asking for additional material in a paper which you have already had to shoehorn into the journal's mandatory page limit. The common practice of journals asking for a double-spaced review copies does not help as the reviewer cannot judge how close to the page limit you are. Worse still, in all the reviews I have done, no editor has ever told me the paper has to fit into *x* pages.

"This paper cannot be published because it contradicts the established wisdom."

Which brings me to the pivotal role of editors and associate editors, the people who oversee this process. Firstly, editors should make it clear to reviewers what they do (and do not!) want in a review. Editors should all be scientists of some repute and therefore well-used to measuring things and interpreting outcomes. Requesting four reviews of a paper is a measurement (of its scientific quality) repeated independently four times to obtain a measure of certainty. As explained above, reviews are getting ever more variable – a view shared by everyone I have spoken to – and thus editors have a duty to interpret outcomes carefully. Put another way, when you measure something you sometimes get outliers which you should recognize and discard. The practice of discarding outliers seems to hold in everything apart from journal reviewing where editors insist you respond to every point in all the reviews, including those made by the reviewer who clearly doesn't know the subject, has skimmed the paper in five minutes just after having a blazing row with his wife, is recommending outright rejection and that resubmission should be discouraged, if necessary, by threats of violence. How can you possibly address such as a review? If it's out-of-line with the other three reviews then it's probably an outlier. Editors need to get a grip here. For an editor to passively pass all the reviews along to the authors telling them to 'sort it out' is not editing anything.

Finally, although I believe peer review is creaking, reviews are becoming more variable and the process urgently needs some attention to adapt it to today's reality, there are always dangers in harking back to some 'golden age' of reviewing. I recall a former colleague – now retired – telling me of a review he received some 40 years ago which asserted "This paper cannot be published because it contradicts the established wisdom." So best not to stray too near the edge of the earth then, lest you fall off!

Below I suggest a set of reviewing 'rules' for the benefit of those new to reviewing but maybe also for many who have been reviewing for a number of years.

Rockett's Rules for Reviewing

It's Called Peer Review! You are reviewing the work of a peer, which the dictionary defines as "One of the same rank, quality, endowments, character, etc.". You are not marking the lab report of a dim second-year undergraduate! Would you make those comments to the author's face if s/he were standing in front of you? Peer review is anonymous so that you can give your honest opinion, not to allow you to be gratuitously offensive and demonstrate some imagined superiority over the author.

Remember Your Role (1). Your principal role as a reviewer is to assure the scientific quality of the paper. Is the work novel? Is the science good? Are the results convincing? This needs to be your central focus.

Does It Really Need Extra Results? Is the author's case sustainable with the results as presented or is there a good scientific argument for an alternative explanation which can only be dismissed by further experimentation? (Note my emphasis of "good scientific argument".) Scientists are, by nature, curious people. But there is a difference between the solidity of the author's arguments and you wondering what happens if you change such-and-such. It might well be interesting but it's not part of the review process to get the author to satisfy your curiosity. You do the work if you're that curious!

Remember Your Role (2). Is the paper sufficiently well-structured and written clearly enough? Notice I have said "sufficiently" and "clearly enough". I have not said the paper has to be written outstandingly. Nice if it is, but there is an adequacy test here. Is it good enough for readers to follow the details and the arguments in an unambiguous way? We are talking about a scientific paper here, not an entry for a literary prize.

You Are Not From The Style Police! People's writing styles differ. Some people write long, florid sentences with umpteen nested sub-clauses. Some are given to sesquipedalianism.[3] Some write in annoying, staccato sentences. One fact per sentence. You bunny-hop. Through the paper. Very irritating. In reality, there is no correct or incorrect writing style. Your only concern as a reviewer is the clarity of the presentation.

"I wouldn't have written it that way". This (or an equivalent) phrase should not enter into a review. Insisting the author should rewrite the paper in the way you would have done it is not a legitimate reviewing comment. You are a reviewer, not a would-be co-author!

Grammatical Mistakes? What do you do about typos and grammatical errors? I would suggest correct them. The rules of grammar are in place to (try to!) ensure unambiguous interpretation of prose. If an author is not a native speaker of English and makes a mistake with articles, does this really detract from the science? By the same token, you have to be an amazing linguist to be able to correct the grammar of even a 7-year old native speaker of another language. I would suggest a polite query rather than "There is much mistake in English and the paper is confuse".

Remember Your Role (3). You're there to make sure only good science gets published and to weed-out stuff which is dodgy, half-baked, derivative or plain wrong. To paraphrase another former Prime Minister, as a reviewer you have three priorities: Scientific quality, scientific quality, scientific quality!

Dr Peter Rockett
University of Sheffield
email: p.rockett@sheffield.ac.uk

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 British Machine Vision Association (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 allow 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

[3]The use of long words!

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.

Dr Aphrodite Galata
University of Manchester
email: a.galata@cs.man.ac.uk

Recent Additions to the BMVA Thesis Archive

Below is a list of theses recently added to the BMVA thesis archive:

Al Damen, Dima (University of Leeds), *Activity Analysis: Finding Explanations for Sets of Events*

Cabello, Jorge (University of Surrey), *High throughput digital Beta autoradiography imaging*

Foster, Matthew (University of Bath), *Reconstruction and Motion Estimation of Sparsely Sampled Ionospheric Data*

Gilbert, Andrew (University of Surrey), *Scalable and Adaptable Tracking of Humans in Multiple Camera Systems*

Wang, Ching-Wei (University of Lincoln), *Video Monitoring and Analysis of Human Behaviour for Diagnosis of Obstructive Sleep Apnoea*

Woodford, Oliver (University of Oxford), *Priors for New View Synthesis*

You can find the full list online at:

http://vision.cs.man.ac.uk/theses/all.php?list=year&year=2009

Dr Aphrodite Galata
University of Manchester
email: a.galata@cs.man.ac.uk

BMVA Distinguished Fellow 2008 – Andrew Zisserman, FRS

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Andrew Zisserman, FRS graduated from the University of Cambridge with a degree in theoretical physics and Part III mathematics. After PhD work in physics, he saw the light in 1984 and began to work on computer vision at Edinburgh University, as part of the Alvey project, the scheme to which we can also trace the beginnings of BMVC. His work with Andrew Blake on the problem of surface reconstruction produced a book, *Visual Reconstruction*, which remains one of the seminal works in the field. The book was one of the first treatments of the energy minimization approach which included an algorithm (called "graduated non-convexity") designed to directly address the problem of local minima, and furthermore with theoretical analysis of its convergence. This work epitomizes the characteristics of Zisserman's research: deep mathematical understanding coupled with an unbending desire for practical results. It's easy to create impressive-looking mathematics if you don't need to show it has a practical relationship to the real world. Zisserman's mathematics is never difficult for the sake of difficulty, but is firmly grounded in real problems in the real world.

Moving to Oxford in 1987, to join Mike Brady's newly founded robotics group, he began to work on what was to be come one of the major movements in the field of computer vision – multiple-view geometry. Initially

interest was focussed on geometric invariants, with an emphasis on object recognition, and it was for object recognition that he first won the IEEE Marr prize in 1993. Again, powerful mathematics was brought to bear on real-world problems, moving on to 3D structure and motion recovery from image sequences (and even single images), with demonstrations on real data which were the envy of every computer-vision conference attendee for a decade. Two more Marr prizes followed, as well as a clutch of other awards, and of course the famous book with Richard Hartley, which is probably on the bookshelf of almost everyone in our field. Software from his research group was developed by the spin out company 2d3 as a camera tracker for the special effects industry. This was awarded a Technical Emmy Award in 2002.

Geometry mediated in showing that computer vision could solve problems which humans could not: recovering 3D structure from multiple images required highly trained photogrammetrists and took a considerable amount of time. However, Andrew's interests turned to a problem where a six-year old child could easily beat the algorithms of the day: object recognition. Leaving geometry to the rest of us to fill in the gaps, he devoted himself wholeheartedly to the problem. Taking some tools from the geometry days, and new ideas from information retrieval and machine learning, his group has repeatedly heightened the bar on what computers can achieve. From the seminal "video google" work in 2003, through the formalization of the recognition performance assessment via the Pascal challenge, he continues to drive the field forward.

His election to Fellowship of the Royal Society in 2007 recognized his status as one of the pathfinder stars of the field of computer vision. I am honoured to announce therefore that Andrew Zisserman is the 2008 recipient of the Distinguished Fellowship of the British Machine Vision Association.

Dr Andrew Fitzgibbon
BMVA Chair
email: awf@microsoft.com

Please note that changes in arrangements for advertised meetings will sometimes occur relative to early announcements, so it is always advisable for prospective participants to check for updates from the relevant website. For BMVA meetings see the following website:

http://www.bmva.org/meetings

BMVC 2010 – Call for Papers

Aberystwyth, Wales, 30 August – 2 September 2010

2nd Call for papers

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 21st BMVC will be held in Aberystwyth.

Authors are invited to submit full-length high-quality papers in image processing and machine vision. Papers covering theory and/or application areas of computer vision are invited for submission. Submitted papers will be refereed on their originality, presentation, empirical results, and quality of evaluation. All papers will be reviewed *doubly blind*, normally by three members of our international programme committee. Please note that BMVC is a single track meeting with oral and poster presentations and will include two keynote presentations to be delivered by Professor Martial Hebert, Robotics Institute, Carnegie Mellon University and Professor Jean Ponce, INRIA, France, and a tutorial to be announced soon.

Topics include, but are not limited to:

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

The BMVC PhD Workshop to be held on 2 September will also be organized. PhD students are invited to submit full-length high-quality papers of which the main author is a student. Papers can be submitted exclusively for this workshop. Student papers submitted through the main conference system that have been rejected will also be considered for inclusion into the workshop. Papers detailing work in progress will also be accepted. Submitted papers will be refereed on their originality, presentation, empirical results, and quality of evaluation. All papers will be reviewed and selected by the local organizing committee.

Four bursaries will be given to PhD students as the first authors whose papers have been accepted. These are sponsored by Microsoft Research. EPSRC, CRS, Springer, Wiley and the Research Institute of Visual Computing also sponsor several awards: best conference paper, best industrial paper, best video (demo), best student paper, best student poster, best workshop paper, etc.

Important dates

Paper registration deadline: 23 April 2010, 17:30
Submission deadline: 30 April 2010, 17:30
Notification of acceptance: 14 June 2010
Camera ready papers: 13 July 2010
Conference: 30 August – 2 September 2010

Organisation

General chair: Fred Labrosse, Aberystwyth University
Publicity chair: Yonghuai Liu, Aberystwyth University
Technical programme chair: Reyer Zwiggelaar, Aberystwyth University
Tutorial and workshop chair: Peter Bunting, Aberystwyth University
Local organizing committee: Meinir Davis, Alan Woodland, Ran Song.

Further information

Conference website: http://bmvc10.dcs.aber.ac.uk
Conference venue: Penglais Campus, Aberystwyth University, Ceredigion SY23 3DB, Wales
Contact email: bmvc2010@aber.ac.uk

Yonghuai Liu
Aberystwyth University
email: bmvc2010@aber.ac.uk

MIUA 2010

6–7 July 2010, University of Warwick, Coventry

Medical Image Understanding and Analysis (MIUA) 2010, the 14th in the series, is the principal UK forum for communicating research progress in image analysis applied to medicine and the biological sciences. It aims to encourage the growth and raise the profile of this vital multi-disciplinary field by bringing together the various communities involved. Contributions from outside the UK are welcome and encouraged. The scope of the meeting ranges from analysis of medical and biological images to the physics of imaging and clinical studies.

MIUA is a single-track meeting with oral and poster presentations. All accepted contributions will be published and the full proceedings will be available at the conference. Selected papers will be invited for publication in the on-line journal, Annals of the BMVA. This year, we have invited keynote presentations by Professor Frangi from Pompeu Fabra University and Professor Westin from Harvard.

Further details of the conference, invited speakers, paper submission and venue can be found on the conference website at http://www.miua.org.uk. Note that the deadline for receipt of submissions is now past.

Dr Nasir Rajpoot
University of Warwick
email: N.M.Rajpoot@warwick.ac.uk

International Conference and Exhibition on Biometric Technology

Coimbatore, India

Authors are invited to submit full length papers on machine vision techniques for biometrics to be presented at the prestigious PSG College of Technology in Coimbatore, India. Papers are especially welcome in the fields of:

- Biometrics in society
- Encryption methods
- Gesture analysis
- Machine vision for surveillance
- Person/face detection and tracking
- Recognition: face, fingerprint, gait, iris, hand, etc.

The field of Biometrics has experienced rapid developments in recent times for two main reasons: first, the revolution in information technology which demands secure access and secure information exchange and second, the frequent outbreak of terror attacks which has raised the need for accurate and reliable identification of individuals. The pace at which new biometric identifiers are discovered and more and more infallible biometric systems are being invented stands as evidence for the intense research being carried out in Biometrics.

All papers recommended by the Review Committee will be published in the conference proceedings, which will be made available during the conference. The conference proceedings will be published by Elsevier in the *Procedia Computer Science* series.

Important dates

Submission deadline: 2 June 2010
Notification of acceptance: 24 June 2010
Camera-ready submission: 8 July 2010
Registration closes: 20 August 2010

Further information

Chair: Dr R Rudramoorthy (PSG College of Technology, India)
Co-convener: UK and Europe: Dr G Atkinson, Machine Vision Laboratory, UWE, Bristol
Conference website:
http://psgim.ac.in/icebt/committees.html

Dr Gary Atkinson
University of the West of England
email: gary.atkinson@uwe.ac.uk

Microscopy Image Analysis for Biomedical Applications

One-day BMVA Symposium at the British Computer Society, 5 Southampton Street, London, WC2E 7HA, on 21 April 2010.

Chairs: Professor Stephen McKenna (University of Dundee), Dr Derek Magee (University of Leeds), and Dr Nasir Rajpoot (University of Warwick)

10.00 Registration and coffee
10.25 Welcome and Introduction
10.30 Invited Talk: *Image analysis – a pathologist's perspective*, Darren Treanor (Leeds Teaching Hospitals, NHS Trust, UK)
11.10 *Automatic nucleus segmentation of adherent cells from brightfield microscopy images*, Rehan Ali, Tunde Szilágyi, Kamila Hussien, Martin Christlieb, Borivoj Vojnovic, Michael Brady (Stanford University; University of Oxford)
11.30 *Classification and scoring of breast tissue microarray spots*, Telmo Amaral, Stephen McKenna, Katherine Robertson, and Alastair Thompson (University of Dundee)
11.50 *Automatic neuropathy quantification using corneal confocal microscopy image analysis*, MA Dabbah, J Graham, I Petropoulos, M Tavakoli, RA Malik (University of Manchester)
12.10 Lunch and Poster Session
14.00 Invited Talk: *Image analysis applications for whole slide imaging: examples from diabetes, neuroscience and oncology research*, Kate Lillard-Wetherell (Aperio Technologies Inc., USA)
14.40 *The application of support vector machines to detect cell nuclei for automated microscopy*, Ji Wan Han, Toby Breckon, David A Randell, Gabriel Landini (Cranfield University; University of Birmingham)
15.00 *Segmentation of cell clumps for quantitative high throughput analysis*, Simon Li, Claudia Buehnemann, Bass Hassan, J Alison Noble (University of Oxford)
15.20 Tea and Coffee
15.40 *Tracing curvilinear structures in live microscopy images*, Boguslaw Obara, David Gavaghan, Vicente Grau (University of Oxford)
16.00 *Segmentation and tracking of networks of Arabidopsis thaliana cells through confocal laser microscope images*, V Sethuraman, A French, D Wells, T Pridmore (University of Nottingham)
16.20 *Three-dimensional model construction from confocal microscopy images for accurate diffusion MRI data synthesis*, Eleftheria Panagiotaki, Matt G Hall, Bernard Siow, Daniel C Alexander (University College London)
16.40 Closing remarks and finish

Posters

Multilevel feature extraction for oesophagus epithelial architecture, Afzan Adam, Andy Bulpitt (University of Leeds)
Analysis of images for automatic targeting and data extraction in transmission electron microscopy, N Coudray, A Karathanou, JL Buessler, G Hermann, JP Urban (MIPS Laboratory, France)
Real time processing issues in segmentation of time lapse fluorescence imagery, D Crookes, A McArdle, C Gillan, P Miller, H Gribben (Queen's University Belfast; Andor Bio-Imaging Division, Belfast)
The automatic identification of non-growing follicles in human ovaries, TW Kelsey (University of St. Andrews)
Raman spectral mapping: improving our understanding of colon carcinogenesis, CA Kendall, J Wood, D Carey, J Hutchings, T Cook, N Shepherd, N Stone (Gloucestershire Hospitals NHS Trust)
Automating yeast cell image analysis, Yihui Liu, Ross D King (Shandong Institute of Light Industry, China; Aberystwyth University)

A new design tool for feature extraction in noisy images based on greyscale hit-or-miss transforms, Stephen Marshall, Paul Murray (University of Strathclyde)

Characterisation of morphological patterns in pulmonary neuroendocrine carcinoma histology images, Poorna Chandra Suraj BN, Nasir M Rajpoot, Muhammad F Bari, David Snead (University of Warwick)

The Open Microscopy Environment: informatics and quantitative analysis for biological microscopy, HCAs, and image data repositories, Jason R Swedlow (University of Dundee and the OME Consortium)

Detecting epithelial nuclei in virtual slides, P Chomphuwiset, RD Boyle, DR Magee, DE Treanor (University of Leeds)

Note that a registration sheet is included with this issue of BMVA News so that members can book a place and lunch at the meeting.

Dr Dimitrios Makris
Kingston University
email: d.makris@kingston.ac.uk

Student Travel Bursary Articles

Last year the BMVA contributed funds to a record number of postgraduate students to attend conferences abroad. In fact, the Student Bursary Officer, Dr Adrian Clark, gave a full report on this activity in the last issue of BMVA News (Vol. 20, no. 2, p. 4). Part of the agreement with students who are awarded bursaries is that they write an article on their trip, thereby guaranteeing valuable extra copy and information for readers. However, with several students attending the same conference, it became rather nonsensical to automatically include them all in BMVA News – though last year as a matter of policy we did so because we didn't want anyone who had written a good article to be disappointed. However, we have decided that we cannot continue this policy unchanged. Hence I now have editor's rights to shorten articles that overlap too much. Nevertheless, I want to avoid the need to do this, as it is a waste of effort for the writer, who is nevertheless obliged to produce an article on pain of not receiving a bursary.

What I therefore suggest is that those who are supported with bursaries make their articles more special in some way: one way would be to report on a particular workshop; another to report on a local visit and how it fitted in with the conference; another to illustrate more clearly what happened in talks using photographs; another to provide a gallery of annotated photographs;[4] and another to contribute a video of some event or piece of work – which could relate to the recipient's own paper. In the last case it would be necessary for the video to have a sufficiently high standard of presentation for the BMVA website or for use when the BMVA makes a presentation at a public meeting (e.g. the recent series of IPOT exhibitions). Overall, we are broadening the normal BMVA News article format to cover variants which would be highly attractive to readers, and in particular would like to encourage slightly shorter articles that are boosted by pictures and tell a specific story rather than relate to all that happened at the conference – as the latter merely serves to create unnecessary overlap.

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

Aerial Image Analysis and Classification

One-day BMVA technical meeting in London, on 12 May 2010.

Chair: Toby Breckon (Cranfield University)

As we go to press the final list of speakers is being drawn up and will be announced imminently. Please refer to the BMVA meetings website for announcements about this important meeting:

http://www.bmva.org/meetings

The main topics to be covered are:

- Aerial image analysis and classification
- Real-time tracking from aerial platforms
- Remote sensing for environmental monitoring
- Viability of Unmanned Aerial Vehicles (UAVs)
- Vision techniques as navigation aids.

Dr Toby Breckon
Cranfield University
email: toby.breckon@cranfield.ac.uk

[4] In this case, if good captions are provided, it may be that very little additional text is needed.