BRISTOL VISION INSTITUTE

BVI REFRESH – SPRING 2011

Welcome to the Spring 2011 BVI newsletter.

2011 Richard Gregory Lecture

We are delighted to announce that this year's BVI Richard Gregory Lecture will be given by David Sproxton, Executive Chairman and Founder of Aardman Animations. The public lecture will be held in The Great Hall, Wills Building on the 24th October.

Bristol Vision & Movement Laboratory..... is moving!

The new BVI lab will be housed on the 4th floor in the School of Experimental Psychology. This space is currently being refurbished and the work should be complete by the end of April. The new lab will house our new equipment: a stereo back-projection system, wide angle Virtual Reality HMD with integrated eye tracking and a force plate.

For any enquiries about possible projects and/or budgeting for use of the facility in your grant proposals, please contact Casimir Ludwig: c.ludwig@bristol.ac.uk.

Novel Signal Processing Methods for Automated Analysis of Cellular Bioimages

Biocellular systems are inherently dynamic systems and determining spatial and temporal relationships, as well as devising strategies for processing them is one of the major challenges in biomedical research. Existing biological image processing tools are suitable only for very simple image processing tasks.

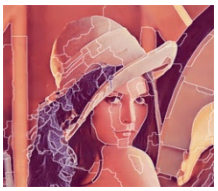
£20,000 has been awarded to fund a project run jointly between the Visual Information Laboratory (VI-lab) and the Wolfson Bioimaging Facility under the EPSRC Cross Disciplinary Research Programme. The project researchers Alin Achim, Paul Verkade, David Bull, David Stephens and Paul Hill, will develop efficient automated analysis and tracking techniques for vesicle detection and tracking in low light/contrast microscopic images.

£680K TSB Funding for AIYP

The Technology Strategy Board and EPSRC have awarded £680K to a new BVI project: ARKive in Your Pocket - AIYP (pronounced APE!) This is part of a £1.4 million collaborative project and more than half the funding goes to the University of Bristol, Visual Information Laboratory (Dave Bull and Dimitris Agrafiotis), the Communication Systems and Networks group and The School of Biological Sciences (Innes Cuthill). AIYP will provide an enhanced immersive audiovisual experience for visitors to wildlife locations and 'events' using wireless networks. It is a two year strategic research collaboration involving UoB, 3CRL, Vid Communications, Wildscreen (ARKive), BBC, Toshiba, Motorola, Mubaloo and ProVision.

BVI Young Vision Researchers Colloquium

This year's colloquium will take place on the 30th June at The University of the West of England. The one-day meeting, organised by BVI aims to bring together young and early-career vision researchers from all disciplines. This is an ideal opportunity to present your work and obtain valuable feedback.



We welcome submission of abstracts from postgraduate students and research associates at the University of Bristol, UWE and Cardiff University on any topics related to vision research. Please contact Melanie.stubbs@bristol.ac.uk.

New BVI Adminstrator

Welcome to Melanie Stubbs who has recently joined the University of Bristol. Part of Mel's role is to provide administrative support for BVI. Mel has an MSc in Counseling Theory and a BSc in Psychology with Counselling from The University of Hull. She is located in Merchant Venturers 2.19 and her email is Melanie.stubbs@bristol.ac.uk. Please contact her with any queries and come along to meet her at one of the BVI seminars.

How good is a 3D movie?

Tom Troscianko and Steve Hinde from the School of Experimental Psychology have been working in conjunction with The Watershed Cinema to try and answer this question. Participants were asked to rate their 'presence' during 30 minutes of Avatar shown in 3D, and then 2D. This experiment will hopefully lead to further study on 3D film as Watershed, Aardman Animations and Europa Cinemas who provide EU funding for cinemas, who show European movies, are all interested in the research.

Retinal Imaging

A new collaboration between Alin Achim, David Bull and David Gibson (VI-lab) and Lindsay Nicholson (School of Clinical Sciences) has been awarded £5000 by the Faculty of Engineering under its research pump priming scheme) to undertake research to develop sophisticated techniques to study the dynamics of diabetes and uveitis from retinal images. The long term goal is to establish a correlation between clinical appearance, as revealed by a combination of photographic and optical coherence tomography images, and underlying diseases.

BVI links with ALSPAC

BVI now has an established link with another major Bristol strength - the Avon Longitudinal Study of Parents and Children (ALSPAC, known also as "Children of the Nineties"). This study is following the lives and development of all children born in the Avon area between 1/4/1991 and 31/12 1992 and originally recruited over 14,000 participants. The study has collected the richest set of phenotype and exposure data for any longitudinal cohort currently in existence (see http://www.bristol.ac.uk/alspac/). Cathy Williams and a team from Bristol Eye Hospital have worked with the study collecting visual function data from the outset. The study with BVI reports on their visual perceptual capabilities at age 13, and the association between these capabilities and how well they do at school (Visual perceptual difficulties and underattainment at school - in press 2010 PLoS One). Further work is planned with BVI to describe the impact and associations of cognitive visual abilities in this unique group.

BVI and REF

BVI Director, Dave Bull has been appointed to Panel B – Electrical and Electronic Engineering for REF 2014. Members were appointed to the panels by the four UK higher education funding bodies following an open nominations process, whereby subject associations and other organizations with an interest in research conducted by UK higher education institutions were invited to nominate candidates. The REF teams will work during 2011 to develop the criteria for the assessment in 2014.

AVA/BMVA Meeting on Biological and Computer Vision (Cardiff Univ 26/05/2011)

The study of biological and machine vision share much common history and each discipline has benefited enormously from findings and techniques from the other. The aim of this meeting, organised jointly by the AVA (UK biological vision) and BMVA (UK computer vision) and particularly encourages submissions that will be of potential cross-disciplinary interest to both human and computer vision. See:

http://theava.net/meetings/ava2011.html

IEEE Thematic Meeting on Emerging Technologies for Video Compression

Video compression is a key enabler for all areas of multimedia communication and storage. All major video coding standards are based on incremental improvements to the hybrid motion-compensated block transform coding model. The question asked by this workshop is whether more disruptive techniques can provide substantial gains. The event will be held on 11th September 2011, in Brussels, as part of the 2011 IEEE ICIP conference and is being organized by: David Bull (UoB), Edward Delp (Purdue University), Seishi Takamura (NTT Cyber Space Laboratories), Thomas Wiegand (TU Berlin & Fraunhofer HHI) and Feng Wu (Microsoft Research).

BVI Website

The BVI website is now up and running http://www.bris.ac.uk/vision-institute/ if you have any ideas of things you would like to see there, please contact Melanie.stubbs@bristol.ac.uk

Suggestions on BVI Refresh to:

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