Recent Successes………

A new Knowledge Transfer Partner

In December 2012, Peter Ball and Shumao Ou were awarded a KTP with Clearview Traffic, a Bicester based company. This partnership is worth £161k and will last for 2 years, and will commence once a KTP Associate has been recruited. If you know someone that might be interested and suitable for this role, please contact Peter on pball@brookes.ac.uk or Shumao on sou@brookes.ac.uk for more details.

One of the current Clearview products is a solar powered LED ‘cats eye’. Spot them on the M40 on your next trip into London, particularly around the junctions. We will be working with the company to develop a new intelligent wireless road stud capable of providing real time road information that could help in traffic monitoring and safety.

Media

MSc DMP graduate, Alex Frankland, recently finished a documentary about the principles and philosophy of Wing Chun for TV in Singapore

Full Documentary: http://www.youtube.com/watch?v=rtP5tS6WyY&hd=1

Trailer: http://www.youtube.com/watch?v=ixJBRiN_MVY&feature=plcp&hd=1

Current BSc Multimedia Production students, Sam Gilling and Huma Ghouri, have completed the colour grade and VFX for an independent British feature film 'Sleeping Dogs'. The film is in the final stages of audio dubbing, before being premièred at the Berlin Film Festival next month.
The Tempus Project

The Tempus project bid, which was put together by a consortium of five Ukrainian Universities, four EU-partners from Ireland, Portugal, Sweden and the UK, has been successful! It was approved by the EACEA in Brussels, and the project has been awarded €993,855.22. This is a three year project to establish a 'National Education Framework in Information Technology Students Innovation and Entrepreneurship' for implementation in Ukrainian universities.

The first Tempus Partners meeting took place in Kiev at the Taras Shevchenko University and was attended by Brookes lecturers Bob Champion and Samia Kamal.

Dr Varsha Veerappa was successful in her PhD viva in November 2012.

The title of Varsha’s PhD at UCL was *Clustering Methods for Requirements Selection and Optimization*. Requirements decision-making enables requirements engineers to determine which requirements to include in the next release of the system. The techniques used range from simple ranking based on scores to more complex multi-objective search-based methods.

Varsha reports “I currently am working on the APRES project with Prof. Rachel Harrison where I am looking at defects and risk analysis in general in requirements engineering. We are looking at ways to determine when requirements go wrong as requirements defects are the most expensive to correct in software engineering.

My other research interests include search-based software engineering (SBSE), social media and data mining. Increasingly requirement engineers are using tools that involve crowd sourcing – where a large number of stakeholders are asked to rate requirements via the web – to elicit input for decision making. Existing requirement decision making techniques do not work in this context because they assume requirement ratings from a small number of stakeholders groups, rather than from a large number of individuals. They also assume that the relevant groups of stakeholders have been identified a priori, and that all stakeholders within these groups have the same preferences.”

Research Centres

Prof Rachel Harrison gives an update on the recently approved Research Centres for the department:

“The Centres form an essential part of our strategy for establishing CCT as a world-leader for research in the areas of Dependable Systems Engineering and Intelligent Systems Engineering. DSEC encompasses the Applied Formal Methods Group, the Applied Software Engineering Group, the Communications Group and the...
Advanced Reliable Computer Systems Group. The aim of DSEC is to promote the synergies and potential that exist within the Research Groups, and to encourage the exploration of new research ground. ISEC will operate as an umbrella Research Centre covering the work of the Computer Vision and Artificial Intelligence research groups. ISEC will serve to more sharply define the research focus of the Department in this area by developing a coherent research strategy that encompasses the work of these groups."

HEIF5

HEIF5 Funding extension on Rate Control of Chaos

“The Rate Control of Chaos method developed is a novel and effective method to stabilise unstable periodic orbits (UPOs) contained in chaotic systems. It does not require prior knowledge of the UPOs contained in the system; however, it requires access to some of the system variables and the rate of change of some of those variables. It has been shown to allow dynamic systems to operate in parameter ranges that are normally not available due to the instability of the system and it can significantly increase its effectiveness. The number of applications to which the RCC method can be successfully applied is extensive. In fact, any dynamic system requiring stabilisation or control is an eligible candidate. Control of lasers, bioreactors, HVAC, wind turbines and combustion engines are all currently under investigation. As part of this HEIF5 project, the wind turbine control and engine management for combustion engines applications are targeted for commercialisation. Our proof of concepts shows significant gains in terms of reduced stress, increased output and improved operation under less than optimal conditions." - Tjeerd Olde Scheper

A New Book

Dr Fabio Cuzzolin, Head of Artificial Intelligence Group, has just had a new book approved by Springer: "The geometry of uncertainty" has been conditionally approved by Springer-Verlag's "Information Science and Statistics" series.

http://www.springer.com/series/3816

The book is about the geometry of various mathematical descriptions of uncertainty, known as "imprecise probabilities", proposed in the last forty years as alternatives or competitors to classical probability theory. These objects can be seen as points living in a certain geometrical space: they can therefore be handled by geometric means. The book provides indeed a geometrical language for working with imprecise probabilities.

The reviewers commented that "there is no other book addressing the Dempster--Shafer theory of evidence in such exhaustive detail, there has not been a detailed study of the geometry of belief functions and as such I believe this book would be a very welcome addition to the literature."

Promotion

Many congratulations to Khaled Hayatleh who has recently been successful in his application for professorial promotion.
Visits……

ITMB

On 28th November 2012, a record number of nearly 350 students from 11 ITMB universities, 27 university staff and nearly 80 employers attended the ITMB North event in Manchester.

The event, which was hosted and sponsored by Deloitte this year, is a significant occasion for students studying ITMB - a degree designed with the help of some of the world’s biggest employers to bridge the gap between traditional business and computing courses.

Students were able to network with their peers, learn new skills, meet prospective employers and hear inspirational talks from industry experts, who represented businesses as diverse as Capgemini, HSBC, P&G and Morrisons.

Speaking at the event, David Adams, Senior Manager, Deloitte, said: “I’ve been involved with the ITMB degree for many years and think it’s a fantastic programme for producing graduates with the well-rounded skill set that our industry needs today.

First year students also competed in a team-working competition set by CreditSuisse, which asked how large financial organisations can attract and recruit the millennial generation. The photo shows two of our first years selling their solution to employers.

Visitors

Prof. Liang Xiao from Hubei University of Technology, Wuhan, China, is visiting the Applied Formal Methods Research group from Nov. 2012. He will be with us for 12 months working closely with Prof. Hong Zhu. His research interests are in the area of multi-agent systems and applications to healthcare and medical information systems.

Look out for……

CCT applicant interviews will continue to be held on Friday afternoons on Wheatley campus. Prospective students are invited along to take part in group sessions along with talks and presentations to them and their guests. They are able to meet a variety of staff from the department and take a tour of the facilities.

Cyberpatterns

Planning is underway for a Cyberpatterns Workshop probably to be held in early July. Last year’s event over 1½ days at Cosener’s House in Abingdon saw two keynotes on cybersecurity and formal methods along with the presentation of 19 papers. Contact Clive Blackwell or Ian Bayley for further information.
Applications are invited for promotion to Professor through the University’s Professorial Promotions Scheme, and for further advancement to levels 2, 3 or 4 for current Professors.

All promotion applications must be made against the criteria for one of the five pathways listed below. The five pathways all recognise past achievement of the highest distinction and are based on an expectation of continuing contribution in the area for which the chair is awarded.

The five pathways are:

a) research  
b) teaching, learning and assessment  
c) enterprise and knowledge transfer  
d) professional achievement  
e) academic leadership

Professors are appointed on the senior staff grading structure and conditions of service. Details of the timetable for the scheme and how to apply can be found at http://www.brookes.ac.uk/services/hr/reward/academic/promotions/professorial/

Applications and supporting documentation should be emailed to hrcommittees@brookes.ac.uk no later than 31st January 2013

Applications for Promotions to Readerships and to Principal Lecturer (Student Experience) 2013 – First Call
Applications are invited for promotions to Reader and Principal Lecturer (Student Experience).

Promotion to a Readership is based on an outstanding contribution to research, scholarship and/or knowledge transfer.

Promotion to Principal Lecturer (Student Experience) is based on an outstanding contribution to the student experience and an emerging reputation for this contribution at national and/or international level.

Details of the revised timetable for meetings, promotion criteria and the application procedure can be found at:

For Readerships:  
http://www.brookes.ac.uk/services/hr/reward/academic/promotions/readership.html

For Principal Lecturers (Student Experience):  
http://www.brookes.ac.uk/services/hr/reward/academic/promotions/pl_student_exp.html

Applications and supporting documentation should be e-mailed to hrcommittees@brookes.ac.uk by 31st January 2013.

Please forward any items of news to Sharon Howard for inclusion in the next news bulletin showard@brookes.ac.uk