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News item

UCAS OPEN DAYS

The School is hosting a number of UCAS Days this year on the following dates:

- Thursday 12th February
- Thursday 19th February
- Thursday 26th March

There will be a further three University Open days on:
Saturday 4th July 2009
Saturday 10th October 2009
Saturday 31st October 2009

For further information please contact us on cs-news@bangor.ac.uk or see our web site www.cs.bangor.ac.uk

WORLD - LEADING COMPUTER SCIENCE RESEARCH

We are delighted to announce that the School of Computer Science at Bangor has achieved it's targets in the recent RAE (Research Assessment Exercise). With over 50% of the research at the 3 or 4 star level.

"The School of Computer Science was founded in 2006 and as such is a very young and vibrant School. We are so pleased to have achieved such a high rating for our research on this, our first RAE." Said Dr Sa'ad Mansoor, Head of School. He went on to say, "this is a very satisfactory result for us and is something that we will build upon in the years to come."

> accenture PRESENTATION

As part of the School of Computer Science's commitment to its student's career development, large organisations are invited to present to our students. This year Rebecca Lloyd from the international consultancy firm Accenture came to give a talk on Accenture's graduate programme. Rebecca, who graduated from Bangor two years ago with a First Class degree in Computer Science with Business, has been through the Accenture Graduate Training Programme and her presentation focussed on the seven week training course she undertook when she began work at the company.

When asked about her time at Bangor Rebecca said "The lectures I undertook whilst in Bangor have helped me to demonstrate the necessary precision and diligence required when in the workplace." And "...the topics covered in my degree at Bangor University have helped me to build sufficient foundation skills in both business and technology." More presentations are being planned for next year.



Rebecca Lloyd with
Dr. Sa'ad Mansoor
Head of School.

PRIZE GIVING

At this year's annual IET lecture and dinner prizes were awarded to James Sweetman and Thomas Beverley. James won the IEEE prize for Telecommunications and the IEEE prize for the best penultimate

year student. Thomas won the WE Williams Award for the best second year BSc. There are a number of other prizes that have been won by Computer Science students. Many congratulations to you all.



Dr. Sa'ad Mansoor, Head of School, with Thomas Beverley and Mr Beverley.

COMPUTER SCIENCE STUDENT PRIZES

Sion Rhys Huws

Eurographics UK Prize

Awarded for the best use & understanding of computer graphics or related technologies in the final year of the course.

British Computer Society Prize

Awarded to the best graduating student on a BCS accredited Course

Nominated for:

Dr John Robert Jones prize and the

Awarded by Bangor University Senate to the most meritorious academic performance.

Dr John Robert Jones (Welsh) prize

James Sweetman

Paul Green

Awarded to the most meritorious undergraduate final year project.

Memorial Award

IEEE Project Prize in Telecommunications

Stephane Rigaud & Sylvain Hayot

J H Gee Prize

Awarded for an outstanding performance in computing related maths.

Thomas Beverley

W E Williams Prize

Awarded to the best 2nd year student.

NEW STAFF

DR SA'AD MANSOOR

Dr Sa'ad Mansoor has been appointed the new Head of the School of Computer Science. Sa'ad's research is in

the field of modelling and simulation of complex non-linear systems, as well as computer network and security.

ROSS BUTLER

Ross Butler graduated first class with a B.Sc. (Hons.) Computer Science from the University of Edinburgh in 2006. Subsequently, he obtained an M.Sc. with distinction in Computer Systems from Bangor University. The title of his thesis in candidature for his master's degree was "Enhancement of the Forensic Analysis of Mobile Phones by Correlation of Data Retrieved from Seized Handsets". The project examined the field of mobile forensics which currently lags behind its computer counterpart, in large part due to the heterogeneity of mobile



handsets. Ross has joined the teaching staff on a full-time basis and lectures predominantly in the subjects of java programming and computer security.

COMPUTER SCIENCE STUDENT CONFERENCE

Thomas Beverley, a third year Undergraduate recently represented the School at Computer Science 2008: Student Research Conference

The conference was held in Cambridge and hosts speakers from Companies and Universities and gives students a chance to understand and engage with the latest in Computer Science development and research. Industry speakers from Google, and Microsoft gave presentations to student representatives from institutions all over the country. The aim of the conference is to..."... challenge, entertain, inform

and above all, to enthuse students with the excitement of research in computer science." Thomas said..."My trip to the Computer Science Conference was really interesting and entertaining. It gave me a great opportunity to see what goes on behind the scenes at universities and companies each day and there were plenty of interesting people willing to show me the research that will change the world of tomorrow."

www.computingconference.org



The conference venue

RESEARCH SUCCESS

Dr. Ik Soo Lim has successfully completed two funded projects.

The first project was funded by the Wellcome Trust and was about three-dimensional anatomy colouring. Ik Soo Lim with his PhD student David Hughes has developed artificial intelligence-based software to extract three-dimensional structures out of body scan images.



A 3-D skull created by a 3-D printer

One of the applications was to print out the extracted structures using a three-dimensional printer.

Ik Soo Lim was also awarded with CASE for New Academics by EPSRC and a local company, Conwy Valley Systems Ltd, which jointly funded the second project. The project was about devising new algorithms and software to automatically analyse microscopic images of fossils for industrial applications, such as oil exploration. Dr. Ik Soo Lim, Dr. Ludmila Kuncheva and a jointly-supervised PhD student (James Charles) have already published the research results in two journals 'Mathematical Geosciences' and 'Computers and Geosciences' highly regarded in the field. Two more journal articles are expected.

INTERNATIONAL COLLABORATION

Francesco Gargiulo from the University of Naples, Italy is visiting Computer Science for 6 months as part of his PhD training.

Francesco's work is in the field of classification of network traffic using advanced pattern recognition and machine learning. This work has relevance to network security and network quality-of-service. One of the hot topics in this field is the application firewall. With this system it is possible to prevent violations on security gateways. For example through the



Francesco Gargiulo

"tunneling" method. In this case the malicious user would use a legitimate carrier protocol, such as http, to transfer non-legitimate content. This research will eventually help minimise internet fraud.

TOUCHING VIRTUAL REALITY

Prof. Nigel John and Dr. Jonathan Roberts recently presented an IET Wales North Prestige Lecture. The talks focussed on using 3D graphics and virtual reality in applications such as medical training. It is already possible to use such techniques to train medical students and for a surgeon to rehearse an operation using virtual models created from the images obtained from a medical scanner. In our information-rich world, computers generate so much data that comprehending and understanding it in its raw form is difficult. Visual representations are imperative if we are to understand even a small part of it. The talks provided an insight into using touch based technology to display data.

MASTER CLASSES IN 25TH YEAR

2009 will see the 25th series of Mathematics Master Classes run at Bangor University. The Master Classes are for GCSE students and consist of relevant presentations and workshops run from January through to March. The programme is run by Dr. Chris Wensley of the School of Computer Science and has become ever more popular with students over the years. This year the Master Classes will welcome the eminent academic Dr. Paul Curzon, of Queen Mary, University of London. Dr. Curzon is highly praised for his work bringing Computer Science research into Schools. For more information on the Master Classes please contact cs-news@bangor.ac.uk or check out the web site: www.maths.bangor.ac.uk/masterclasses/09prog



Welsh Castle

PRESERVING OUR HERITAGE

The School of Computer Science has been successful in securing a heritage bid of £30K for visualising and displaying different stages of an archaeological site's past. Dr. Jonathan Roberts from Computer Science and Prof. Raimund Karl of the School of History Welsh History and Archaeology will be collaborating on this exciting project, which not only brings together different University departments but extends Computer Science's reach into the area of history and heritage in Wales. It is hoped that this project will lead the way to further research in this area and more cross discipline collaboration.

COMPUTER GAMES

Third year students have been drawing up concepts for a new computer game as part of their studies. The assessment aims to take students through the initial production stages of a video game. Students were required to write a video game. In order to simulate how games are produced in real-life students have to develop a game "concept" and produce a prototype with documentation to support their ideas. They are also required to present their ideas in a "Dragon's Den" style event where they must pitch their game to a panel of experts. "The presentations



Jessie Rowlands who is studying Computer Science, and Melissa Saeland an Oceanography and Computing Student

were lively and innovative and all the students have developed great ideas." Said Professor Nigel John the module co-ordinator.

SCHOOL HOSTS EUROGRAPHICS 2011

Eurographics 2011 will be held in Llandudno, Venue Cymru. It will be organized by the Visualization group at Bangor University. This is a first time that the Eurographics International Conference on Computer Graphics has come to Wales.

This event is the major annual computer graphics conference in Europe, devoted to the needs of professionals in computer graphics and all related visual disciplines. It brings together computer graphics experts from around the world to describe their latest developments. For more information on the event contact cs-news@bangor.ac.uk or see the web site: www.eg.org

MEDICAL RESEARCH HELPING SURGEONS

www.vmg.cs.bangor.ac.uk

The School of Computer Science specialises in all areas and aspects of visualisation. Medial visualisation is an area of particular expertise. A recent project, funded by the Department of Health has seen the testing of **ImaGINE-S (Imaging Guided Interventional Needle Simulator)**, a tool to assist with teaching medical procedures such as a liver biopsy. This project is being jointly run by Bangor, Liverpool, Imperial, Leeds, Manchester and Hull. The tool has been tested by Medical experts at conferences all over Europe and initial feedback has been excellent. The Bangor team includes: Nigel John, Chris Hughes, Llyr ap Cenydd, Serban Pop and Tim Coles.