UNIVERSITYOF BIRMINGHAM

School of Computer Science Family



Spring 2014

Geetings,

Another busy term has come to an end in the School of Computer Science as our students are finishing assignments and dissertations ahead of the Easter break. Our numbers of prospective students and applicants continue to soar thanks to our "University of the Year" accolade and of course to the School's commanding league table position.

As you will see from this newsletter our academics have also made, and contributed to, significant scientific discoveries. Dr Nick Hawes' work on the use of <u>robotics and artificial intelligence</u> in near-future commercial applications; <u>Dr Mirco Musolesi's</u> study of the spread of information and conversations on Twitter around the time of the announcement of the Higgs boson discovery in 2012 and the increasingly important role of social media in the communication of science; and Tom Chothia's article on how users can protect themselves when <u>GCHQ goes for your webcam</u>.

We are also pleased to congratulate one of our alumnus, <u>Adam Ball</u>, who has launched a new platform to bridge the skills gap between education and the workplace, helping aspiring young coders gain vital commercial experience whilst studying.

I'd like to take this opportunity to remind you of your invitation to attend the first EPS Reunion. Similar to that of our Annual Alumni Reunion event, we are inviting all former students of the School to return to campus on Saturday 14th June to reminisce with us. It is set to be a very good day and I look forward to seeing many of you there.

With best wishes,

Professor Jon Rowe Head of School Computer Science



In this issue...

News from the School

New staff

Your School needs you

Events taking place





Hurry! Only 24 hours to secure your 'early bird' place at the EPS Reunion 2014!

Do you have fond memories of your time at the University of Birmingham? Do you still keep in touch with those classmates who you pulled all-night study sessions with, to get that last

assignment finished? As a graduate of the School of Computer Science, we'd love for you to join us on campus on Saturday 14 June 2014 for a Reunion. Read more.

10 ways the University of Birmingham has changed the world



Can you help us to celebrate the impact that staff, students, and alumni have had on society?

With eight Nobel Prize winners amongst former staff and students, and world–leading researchers on everything from the Big Bang to Shakespeare, Birmingham research continues to transform lives. The University needs your nominations for a new 'top ten' list of the alumni, staff, and students who have had profound impact through their research. Visit www.birmingham.ac.uk/10ways to cast your vote by Friday 4 April. Winners will be announced in May

Robot developments big for business



Robotics is the fastest industry in the world. The market for industrial robots, i.e. reprogrammable machines which can do fixed, predictable tasks, has started to grow again after a few years of stagnation. Dr Nick Hawes discusses the use of robotics and artificial intelligence in near-future commercial applications. Read more.

The anatomy of a scientific rumor



The discovery of the Higgs boson was one of the landmark discoveries of 2012 and it will be remembered forever in the history of science. The news was shared around the World within minutes of the CERN announcement. Dr Mirco Musolesi's presents a study of the spread of communication on Twitter around the time of the announcement and explores the increasingly important role social media takes in the communication of science and in the scholarly debate. Read more.

Professor Sir Martin Sweeting delivers the inaugural EPS Distinguished Lecture



On Wednesday 5th March Professor Sir Martin Sweeting, Director of the Surrey Space Centre, delivered the first EPS Distinguished Lecture. Students Ceri Bradshaw, Rob Brennan-Craddock and Graham Kirkby summarise the event. Read more.

University's bitcoin gimmick masks accountability problem with online currency



Some universities are to allow some students to pay their tuition fees in bitcoin, the digital currency hitherto more associated with drugs and guns. Professor Mark Ryan and PhD student Gurchetan Grewal comment on the use of bitcoin and its application in the world of higher education. Read more.

How to protect yourself when GCHQ goes for your webcam



News that government intelligence agency GCHQ has been intercepting and storing webcam images from 1.8 million users of Yahoo's chat service under the codename Optic Nerve is a reminder of how close we are to living in a surveillance state. Webcams, embedded in laptops and sitting on top of monitors, have become a standard piece of computing equipment, but it has now become clear that these can be used against us. Read more.

US Ambassador to the UK, Matthew Barzun, visits Birmingham



The College of Engineering and Physical Sciences was honoured to welcome Matthew W. Barzun, Ambassador of the United States of America to the United Kingdom of Great Britain and Northern Ireland as well as Christine Prince, US Embassy Second Secretary, in February as part of a visit to the city of Birmingham. Read more.

Coding Cupboard launches to connect a generation of student coders with business



University of Birmingham Computer Science alumnus Adam Ball has launched a new platform to bridge the skills gap between education and the workplace, helping aspiring young coders gain vital commercial experience whilst studying. Read more.

National Women in Engineering Day



Monday 23 June marks the first National Women in Engineering Day launched by the Women's Engineering Society. It is intended as a day dedicated to raising the profile and celebrating the achievements of women in engineering. We are looking for women with a story to tell. Do you work in science or engineering and would like to get involved? The programme is being developed as we speak so if you would like more information or want to take part please <a href="mailto:e

The robot teacher connecting with autistic children



A robot named Nao is helping a primary school in Birmingham to explore how technology can help children with special educational needs. Nao has been developed in conjunction with the School of Education and the Autism Centre for Education and Research and funded by the generosity of the Circles of Influence Campaign. For more information read our article featured in The Telegraph or visit our giving pages.

New staff in 2013/14

There have been a number of appointments in the School this term. Read a summary of our new staff online here.

Your School needs you...

Would you be able to share some of your time, expertise or connections to help our students to succeed?

We're currently looking for help and support from alumni with the following:

- EPS Open Days, 26-27 June. Could you donate a couple of hours of your time to pop back to your old school and speak
 to our prospective students about your time at Birmingham? For more information and to get involved <a href="mailto:e
- All women in science and engineering. As part of National Women in Engineering Day, 23 June, the EPS Community is
 hosting a number of activities, conversations and events designed to celebrate women in engineering and scientific
 careers. If you work in science or engineering and would like to sit on our panel, get involved in the conversation on
 twitter, or come along to our evening event, please get in touch by emailing us

There are many ways in which you can give a little back, from providing a career profile, to mentoring a student. **Details can be found online** and email us if you would like to get involved.

Events taking place shortly...

School events

Engineering & Physical Sciences, Heriot-Watt University

07/04/2014, 4-5pm

UG05, Learning Centre (R28), University of Birmingham

<u>Timing attacks in security protocols: symbolic framework and proof techniques</u> by Vincent Cheval, School of Computer Science, University of Birmingham

17/04/2014, 11am-12pm

Room 245, Computer Science (Y9), University of Birmingham

All Networks Great and Small by Prof. Robin Dunbar, University of Oxford

29/05/2014, 4-5pm

UG05, Learning Centre (R28), University of Birmingham

College events

EPS Inaugural Lecture Series

Professor James Tucker - "Going beyond the Molecule: The Chemistry of Connections"

10/04/2014, 5:15-7:30pm

Lecture Theatre 203, Haworth Building (Y2), University of Birmingham

The lecture will describe and focus on an area of science called supramolecular chemistry, which is often described as "chemistry beyond the molecule". Supramolecular chemistry goes beyond traditional molecular chemistry, which largely focuses on how individual molecules are made, to focus on what a molecule can do once it is made. In particular it concerns how molecules interact with one another and how an understanding of these so-called intermolecular interactions can lead to ordered assemblies, controllable functionality and the mimicry of biological systems.

For more information on other lectures in the EPS Inaugural Lecture Series please visit www.birmingham.ac.uk/eps/inaugural

British Science Festival Event

Details to be confirmed

Keep a look-out here as for more information on how we'll be celebrating the British Science Festival at the university. More information to follow soon!

National Women in Engineering Day

23/06/2014

Details to be confirmed

On 23rd June the EPS Community will be celebrating the achievements of women in the field of engineering as part of the first National Women in Engineering Day (NWED). Keep a look-out here as for more information on our plans for the day!

EPS reunion

14/06/2014

College of Engineering & Physical Sciences, Edgbaston Campus

As a graduate of one of the nine schools in the College of Engineering & Physical Sciences (EPS), you are invited back to campus on 14 June 2014 for a Summer Reunion to get together with your fellow alumni to celebrate your experiences, accomplishments and friendships at the University of Birmingham.

To book your place, please follow the online registration link below or download the appropriate booking form and return by post, fax or email. http://bhamalumni.org/eventregistration

University events

Hong Kong Alumni Gathering

02/04/2014, 7-9pm

Shore 3rd Floor, The L Place, 137-141 Queens's Road, Central Hong Kong

Melbourne Alumni Gathering

10/04/2014, 6:30-9pm

Seasons Botanic Gardens Hotel, Orient East Bar and Restaurant, 348 St Kilda Road, Melbourne VIC 3004

Fab 'n' Refresh

26/04/2014, 10pm

Joe's Bar, Guild of Students, University of Birmingham

Sydney Alumni Gathering

29/04/2014, 7-9pm

The Zeta Br, Level 4, 488 George Street, Hilton, Sydney, Australia

Brisbane Alumni Gathering

06/05/2014, 7-9pm

Pig 'N' Whistle Riverside, 123 Eagle Street, Brisbane, Australia

Alumni Sports Day

14/06/2014, 9am-5pm

Do we have the right details for you?

please visit <u>your.bham</u> or email <u>alumnioffice@contacts.bham.ac.uk</u>.

You have received this email from the University of Birmingham because we believe that it is relevant and of interest to you. If you would like to opt-out of receiving information from your College, School or Department by email, please opt-out by visiting your.bham, emailing alumnioffice@contacts.bham.ac.uk, or telephoning +44 (0)121 414 2773 / 2744 / 4724. In order to further tailor the communication we send, all emails are tracked and processed; further information regarding our use of data, is available by looking at our data protection statement