# UNIVERSITYOF BIRMINGHAM

# School of Civil Engineering Community



# Spring 2014

### Greetings,

Recently, I attended a conference titled 'Global Urban Challenges: The Role of Research Universities' on behalf of the University. The conference was an eye opener in terms of the complexities of the challenges facing cities as we move forward, and how we, as research institutions, can work together to overcome such challenges. It is with great pleasure that I can announce that the university has further strengthened its links with North America by announcing the establishment of a strategic alliance with the University of Illinois at Urbana-Champaign.

Continuing with the theme of student success, I would like to congratulate Rebecca Sindall, who presented her research into the optimisation of renewable energy at the Houses of Parliament as part of the Set for Britain competition. It is fantastic to see more female engineers at the university, and we hope to further attract and retain female engineering talent – as such, we'll be organising a variety of activities and conversations to celebrate the first ever National Women in Engineering Day (NWED), which takes place on 28<sup>th</sup> June. We hope you can join us in the

The School also has plans to launch a new MSc in Structural Engineering and Practice. However, we have been surprised at the number of people who are prevented from undertaking courses to their financial situation. The school is therefore seeking to raise £300,000 for scholarships to help talented students access further education. We would very much value your help to achieve this target and if you are able to contribute please contact <a href="Kathryn Chedgzoy">Kathryn Chedgzoy</a>.

As the academic year draws to a close and students are frantically revising for those all-important examinations, now is a great time to look over our sucesses so far in 2014. I would encourage you to read all about our students' and staff endeavours in our annual <a href="Civil Engineering Newsletter">Civil Engineering Newsletter</a>. I'd also like to take this opportunity to remind you of your invitation to attend the first <a href="EPS Reunion">EPS Reunion</a>. 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 great day and I look forward to welcoming you back to the campus.

With best wishes,

Professor Mark Sterling Head of School Civil Engineering



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# **News from the School of Civil Engineering**

# 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 Civil Engineering, 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 <a href="https://www.birmingham.ac.uk/10ways">www.birmingham.ac.uk/10ways</a> to cast your vote by <a href="https://www.birmingham.ac.uk/10ways">Friday 4 April</a>. Winners will be announced in May

# **Civil Engineering School Newsletter**

Compiled by Head of School Professor Mark Sterling, the annual Civil Engineering Newsletter celebrates the School's achievements in the 2013/14 academic year. Read articles on transport research, student successes, update from CivSoc and test your knowledge with exam papers from June 1972. **Read more.** 

## **SET for Britain**



In March 2014 doctoral researcher Rebecca Sindall presented her research into the optimisation of renewable energy to MPs and engineering experts at the Houses of Parliament as part of the Set for Britain competition. Read more.

# Professor Sir Martin Sweeting delivers the inaugural EPS Distinguished Lecture



On Wednesday 5<sup>th</sup> 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.

## **Adventures in Fluid Mechanics**



Food prices may have soared in the past few years, but we are paying less for our bread and cereals than we might have done had Professor Mark Sterling not worked out how to prevent crops from falling over in high winds! Mark was part of a team that examined the structure of wheat to see what could be done to stop it being battered to the ground in bad weather. Read more.

## Road Management and Engineering

A masters degree associated with roads has been taught at the University, in one form or another, for over 40 years and there are almost 1,000 alumni of the programme. How time flies! Dr Michael Burrow, the academic in charge of the MSc Road Management Programme, has created a new publication to keep this select group of alumni informed of goings on within the team. Read more.

## BRIDGE alliance with the University of Illinois



The University has strengthened its links with North America by announcing the establishment of a strategic alliance with the University of Illinois at Urbana-Champaign. Research links between the two institutions include such disciplines as Railway Engineering and Maths. Read more.

## Hydrogen could save regional railways



There is increasing talk of electrification of the UK's railway network. But electrification is an expensive business, requiring much new hardware including masts, wiring, substations and so on. Such an investment can be justified for heavily used lines such as urban metro systems and inter-city routes, but not on less used lines such as regional routes. Railways will continue to need an energy supply system that does not rely on electrification for the foreseeable future. Read more.

## First year of Beale Lectures proves highly popular



As a response to students' wishes to hear more from the civil engineering and related industry, the School organised a programme of a dozen extra-curricular lectures, delivered after the end of the usual teaching day, on Tuesday evenings. <a href="Read more">Read more</a> on what the series is all about.

# School of Civil Engineering opportunities for involvement



Engineering is all about applying solutions to diverse problems. Reinforcing our teaching, industrial interaction gives a student the opportunity to experience real-life problems, and you an opportunity to sample from some of the best students in the UK. Can you help us build a better experience for our students? 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

## **MSc in Structural Engineering and Practice**

The School has plans to launch a new MSc in Structural Engineering and Practice. Over the last few years we have been surprised at the number of people wishing to undertake a higher degree in this area. However, we have also been surprised at the number of people who are prevented from doing so because of their current financial situation. In order to address this point the School is seeking to raise £300,000 for scholarships, which would provide the appropriate level of resource to provide fee free education for five students for the next 10 years. We would very much value your help to achieve this target and if you are able to contribute please contact Kathryn Chedgzoy.

#### 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 email us
- 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...

## **College events**

## **EPS Inaugural Lecture Series**

<u>Professor James Tucker – "Going beyond the Molecule: The Chemistry of Connections"</u> 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 23<sup>rd</sup> 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!

#### 14/06/2014

## College of Engineering & Physical Sciences, Edgbaston Campus

As a graduate of one of the nine schools in the <u>College of Engineering & Physical Sciences</u> (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. <a href="http://bhamalumni.org/eventregistration">http://bhamalumni.org/eventregistration</a>

## **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**

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

## Alumni Sports Day

14/06/2014, 9am-5pm

University of Birmingham

# 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