

UNIVERSITY OF  
BIRMINGHAM

## School of Civil Engineering Community

Part of  
THE EPS COMMUNITY



### Winter 2015

Greetings

As you will see from this newsletter it has been a busy start to the new academic year in which we have welcomed nearly 250 new undergraduate and postgraduate students to the School. Our researchers have been demonstrating the applications of their work, using fluorescence spectroscopy to reduce wastewater treatment costs. We have also been collaborating with our colleagues in the School of Physics and Astronomy to use Quantum Technology to improve our access to underground infrastructure.

Our students have also been busy, with an eventful start to the year for CivSoc who, alongside their social and sporting activities, hosted an incredibly successful careers networking evening with Carillon. EWB meanwhile have been focussing on their outreach activities, championing STEM subjects in schools, whilst WISE continue to promote the opportunities available to female scientists and engineers.

So as the end of the first semester in the 2015/16 academic year approaches, I would like to wish you all a pleasant and restful Christmas and I look forward to updating you with the latest news from the School and our students in the Spring Term.

With best wishes

**Professor Mark Sterling**

Head of School

Civil Engineering



## Reducing operating costs of wastewater treatment using fluorescence spectroscopy

Professor John Bridgeman and Dr Elfrida Carstea have shown how fluorescence spectroscopy can improve the accuracy and speed of water quality measurements. The EU-funded Fluoro-BOOST project aims to provide the water industry with an improved method to test wastewater quality using developments in the field of fluorescence spectroscopy, leading to more accurate treatment and delivering cost savings through more efficient use of resources.

[FIND OUT MORE >](#)



## Creating a whirlwind of new knowledge about extreme wind events and their effects on built structures

Researchers in the School have been conducting a novel set of experiments examining the effects of wild winds on buildings by simulating thunderstorm downbursts in a lab and measuring their effects on building models of different heights.

[FIND OUT MORE >](#)

# "The best place in Birmingham..."

In a new feature we'll be asking students and alumni in the College of Engineering and Physical Sciences about their favourite places in Birmingham. In this edition they tell us "The best place in Birmingham to hang out after lectures".



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## How can Quantum Technology make the underground visible?

Dr Nicole Metje and Dr Michael Holynski recently commented on the use of Quantum Technology (QT) in making the underground visible. Current technologies provide limitations in identifying these utility infrastructures but the use of an



## Societies News

It's been a busy few months for our societies! Beth McGoff, Secretary of [CivSoc](#), and the [EWB](#), [UBRobotics](#) and [WISE](#) committees tell us about their events over the past few weeks and their plans for the coming months.

advanced QT sensor developed with the University's physicists overcomes these problems and offers wider future applications.

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## News Round-up

There have been a number of appointments in the School over the past few months. Read a summary of our new staff [here](#).

The School's research into evaluating and improving major road networks across the world has featured in the UK Collaborative on Development Sciences' (UKCDS) [top 20 research impact list](#).

[A research cooperation agreement has been signed](#) with Beijing Jiaotong University (BJTU), China that announces plans for a joint international high-speed railway research laboratory.

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The University recently unveiled its [five-year plan](#) to deliver real impact, tackle major challenges and transform lives through its research, education, investment and influence.

Birmingham has been named [University of the Year for Graduate Employment](#) in The Times and The Sunday Times Good University Guide 2015-16.

A Qur'an manuscript held by the Cadbury Research Library and thought to be among the oldest in the world, was [recently exhibited at the University](#).



## Alumni News

In this edition Jo Maguire (BSc Civil Engineering with Industrial Experience, 2015) tells us how she's adjusting to graduate life at Mott MacDonald.

[FIND OUT MORE >](#)



## Get involved!

There are many ways you can get involved with us:

- Send us your news for a chance to feature in our next edition
- Become a mentor and help support our students
- Offer a work experience placement
- [Hang a personalised bauble on our Christmas tree!](#)

And don't forget to let us know where your favourite place to socialise after lectures was!

[FIND OUT MORE >](#)

## Events

### [EPS Inaugural Lecture Series](#)

For information on upcoming lectures in the EPS Inaugural Lecture Series please [visit our website](#).

**Saturday 5 December 2015**

### [Christmas at Winterbourne](#)

Winterbourne's ever popular Christmas event returns on 5<sup>th</sup> December, bringing a traditional Christmas to Birmingham. With the house beautifully dressed in traditional

decorations, carol singers providing an unforgettable atmosphere, magic lantern shows and an expanded craft stalls areas, there's plenty to keep you entertained.

**Time:** 11am-7pm

**Venue:** Winterbourne House and Garden, Edgbaston Campus

### **Monday 7 December 2015**

#### **Festive Drinks at the University Carol Service**

Join fellow University of Birmingham alumni, staff and students for the perfect start to the Christmas season. Come back to campus for an uplifting and joyful carol service, organised by the University Chaplaincy and Department of Music and featuring carols, readings and festive poems, all in the beautiful surroundings of the Great Hall. Alumni are then invited to join us in the Rotunda (above the Aston Webb foyer) for mulled wine, fruit juice and mince pies.

**Time:** 6.15pm-9pm

**Venue:** Great Hall, Aston Webb Building, Edgbaston Campus

### **Tuesday 8 December 2015**

#### **EPS Christmas Lecture**

##### **Professor Mark Miodownik: Stuff Matters**

Whatever people think about the rapid pace of change of technology, our most fundamental categorization of stuff on the planet has not altered: there are living things that we call life, and there is non-living stuff that we call rocks, tools, buildings and so on. As a result of our greater understanding of matter, this distinction is now becoming blurred and is likely to usher in a new materials age. Bionic people with synthetic organs, bones and even brains will be the norm. Just as we are becoming more synthetic, so our man-made environment is changing to become more lifelike: living buildings, and objects that heal-themselves are on the horizon. This lecture reviews the changes to the material world that are coming our way.

**Time:** 6.30pm-8.30pm

**Venue:** Leonard Deacon Lecture Theatre, Medical School, Edgbaston Campus

### **Tuesday 19 January 2016**

#### **Distinguished Leaders Series: Paul Szumilewicz and Lucy Williams (HSBC)**

In the latest lecture in the Distinguished Leaders Series, the Birmingham Business School (BBS) Alumni Relations team are delighted to welcome Paul Szumilewicz and Lucy Williams to discuss 'Leading Change: Challenges and opportunities of moving HSBC's Ring-fenced bank from London to Birmingham'.

**Time:** 6pm-8pm

**Venue:** Room G12, Main Lecture Theatre, Birmingham Business School, Edgbaston Campus

### **Wednesday 9 March 2016**

### **EPS Distinguished Lecture: Professor Dave Charlton FRS**

Professor Dave Charlton FRS, spokesperson of the ATLAS Collaboration at the Large Hadron Collider at CERN will be delivering the next EPS Distinguished Lecture. Please see the [website](#) for more information.

**Time:** 6pm-7.30pm

**Venue:** Edgbaston Campus

### **Wednesday 8 June 2016**

#### **EPS Societies' Awards**

Come and celebrate with our student societies as we recognise their fabulous achievements in 2016/17.

**Time:** 7pm-11pm

**Venue:** The Great Hall, Edgbaston Campus

### **Saturday 18 June 2016**

#### **EPS Alumni Reunion**

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

**Time:** 9.30am-6pm

**Venue:** Edgbaston Campus

### **Monday 12 September 2016**

#### **Alumni Golf Day 2016**

Following on from the success of the inaugural University of Birmingham Alumni Golf Day held in 2015 at Edgbaston Golf Club, we are delighted to announce that another event is planned for 2016. Please see the [website](#) for further information.

**Time:** 10am-6pm

**Venue:** Edgbaston Golf Club

The University of Birmingham has alumni groups all over the world that organise local events. To join a group and see details of upcoming events please visit the [webpage](#) and select your location.



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