

# School of Metallurgy and Materials Community

Part of  
**THE EPS COMMUNITY**



Spring 2014

## Greetings,

In all of our science or engineering we are 'standing on the shoulders of giants', in the well-known phrase inscribed on the edge of the two-pound coin. Some of those giants in the form of portraits of former Heads have been restored to the walls of our recently-refurbished School of Metallurgy and Materials. These go all the way back from our current Head, Professor Paul Bowen, to Thomas Turner, the first lecturer and Professor of Metallurgy at Mason College and the University of Birmingham, who studied at the Royal School of Mines before effectively founding our School in 1887. Early alumni taught by Turner include two future Prime Ministers – Neville Chamberlain and Stanley Baldwin – who both briefly studied metallurgy at Birmingham.

Also enriching the School are three pieces of art by one of our current undergraduates, Dana Brintz. This is what she says about them: "My work is composed of layers of resin, enamel and glass paint framed in steel. Each work is a snapshot of an evolving abstract landscape where a collection of organic forms and sinews interact with delicate tension. Textures and configurations can be reminiscent of celestial topographies or microscopic imagery." Dana worked and exhibited as a professional artist in London, after graduating from Princeton University in the USA and the Chelsea College of Art in London. She is currently retraining as a materials engineer and is passionate about composite materials. Dana is Head of Composites for UBRacing, the student-led team designing and building a 'Formula Student' vehicle in which she is responsible for the bodywork and structural parts made from carbon-fibre composites.

Female engineers like Dana will be celebrated on 23<sup>rd</sup> June by [National Women in Engineering Day](#). As a School we are considering applying for an Athena Swan Bronze Award - the Athena Swan mission is to support good practice in the recruitment, retention and promotion of women in STEM subjects (science, technology, engineering, mathematics and medicine). Some of the issues facing women are related to work-life balance so good practice beyond supporting women will also be considered. Professor Claire Davis and I are leading the School team.

I'd also like to take this opportunity to remind you of your invitation to attend the first [EPS Reunion](#). Similar to that of the previous University Annual Alumni Reunion event, we are inviting all former students of the School to return to campus on Saturday 14<sup>th</sup> 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,

**Dr Stephen Kukureka**  
Deputy Head of School  
Metallurgy and Materials

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## News from the School of Metallurgy and Materials

### 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 Mathematics, 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?

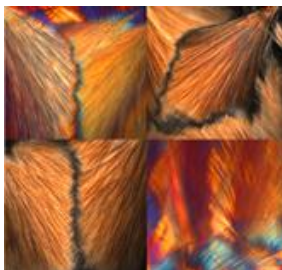
With eight Nobel Prize winners amongst former staff and students, and world-leading researchers on everything from the Big Bang to Shakespeare, Birmingham research continues to transform lives. The University needs your nominations for a new 'top ten' list of the alumni, staff, and students who have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

### Work to start on £60 million advanced manufacturing research facility at Ansty Park



The School of Metallurgy & Materials and Rolls-Royce have announced the launch of their joint collaboration to establish a High Temperature Research Centre. The Centre will be a unique casting, design, simulation and advanced manufacturing research facility, and will focus initially on the key design and manufacturing aspects of investment casting relating to aerospace and other industrial sectors. [Read more.](#)

### New use for an old 'trouble maker'



A 'trouble maker' from a bygone method of glass production could find a new use as an optical diffuser in medical laser treatments, communications systems and household lighting. A form of crystal that was long considered an unwanted and unloved 'stone' in glass making could find practical use as a cheap and efficient optical diffuser, which are used to scatter and soften light for a range of industrial and household applications. [Read more.](#)

### Birmingham University Materials Society – BUMS!



Want to hear what the Materials Society have been up to this year so far? [Read what the BUMS Presidents Geena Rait and Vicky Hatwell have to say.](#)

### The ball is back!



For the first time in many years the School of Metallurgy and Materials is organising an end-of-year ball where staff and students, from Met & Mat courses past and present, have the chance to socialise over an evening of food, drinks and entertainment. BUMS would be delighted for you to attend on Wednesday 18<sup>th</sup> June. [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.](#)

## Surface Engineering: origins, status and potential



Professor Hanshan Dong has made ground-breaking contributions to the surface engineering of titanium-based alloys: his novel ceramic conversion technology made it possible, for the first time, to use titanium components in engines and cars for Formula One and IndyCar racing. [Read more.](#)

## The rejuvenation of UK manufacturing technology



Shaping a bright future for British manufacturing requires joined up thinking between industry, academia and the government. The growing recognition that the UK cannot solely rely on the financial sector has shifted the focus on to manufacturing as an integral part of a balanced economy. Professor Richard Williams, Head of the College of Engineering and Physical Sciences, talks about the Manufacturing Technology Centre, and its impact on the future of UK manufacturing. [Read more.](#)

## Manufacturing Technology Centre gets funding for 3D printing



Chancellor George Osborne has announced funding for 3D printing and aerospace technology. An investment of £30 million will be matched by industry funding and a national centre will be created at the University's Manufacturing Technology Centre. [Read more.](#)

## Mining and Minerals Engineering, 16th Reunion Dinner

The Mining and Minerals Engineering Reunion will be held Friday 9<sup>th</sup> – Sunday 11<sup>th</sup> May 2014 in Birmingham. Graduates from years 1951 through to 1985 are represented with participants travelling from as far afield as Canada, South Africa and the USA. [Register online.](#)

## 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 [email us](#) or keep an eye on [our website](#).

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## New staff in 2014

The School of Metallurgy and Materials has made a new appointment 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 Metallurgy & Materials 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.**

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## Events taking place shortly...

### School events

#### [Mining and Minerals Engineering, 16th Reunion Dinner](#)

09-11/05/2014

#### [Materials Ball](#)

18/06/2014

Birmingham Botanical Gardens

### 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](http://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!

**[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>**

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**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

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**Do we have the right details for you?**

please visit [your.bham](#) or email [alumnioffice@contacts.bham.ac.uk](mailto:alumnioffice@contacts.bham.ac.uk).

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