

School of Metallurgy and Materials Community

Part of
THE EPS COMMUNITY



Spring 2018

The School has had an exciting year, with the appointment of five new members of staff and the launch of a [major new initiative in battery recycling](#).

We have appointed Professor of Casting Technology [Paul Withey](#), Birmingham Fellows [Dr Andrew Morris](#) and [Dr David Collins](#), and Lecturers [Dr Biao Cai](#) and [Dr Dan Reed](#). Paul joined us from Rolls-Royce, and will work closely with our [High Temperature Research Centre](#). David and Biao both carry out experiments using synchrotron X-ray methods, and will strengthen our partnership with Diamond Light Source. David focuses on metal forming, and Biao is interested in fundamental aspects of metal solidification including casting and additive manufacturing. Andrew carries out fundamental materials modelling, and Dan is an experimentalist, both with a particular interest in battery materials. We have also just appointed Dr Adrian Burden on a Royal-Society funded part time position as [Entrepreneur in Residence](#) to share his experience as an entrepreneur with both academic colleagues and students, as well as helping us to introduce entrepreneurship into our undergraduate and postgraduate programmes.

The [Birmingham Centre for Strategic Elements and Critical Materials](#) joint with the Schools of Chemistry and Chemical Engineering has gone from strength to strength, and provided a spring-board for the development of a programme on recycling and reuse of lithium batteries that is led by the University with other University and industrial partners. This complements further developments in recycling of rare earth magnets, and is increasing our interest in materials recycling.

This has also been the year for reviewing our undergraduate curriculum. Starting in September we will run a redesigned set of undergraduate programmes with three strands: Materials Engineering, Nuclear Materials/Engineering joint with the School of Physics, and an entirely new programme of [Aerospace Engineering](#) joint with the School of Engineering (incorporating the Mechanical and Materials Engineering programme). We are already seeing a great deal of interest in our new aerospace course.

This year we have also had our most successful Materials Ball in many years, with over 250 guests in the Great Hall on Saturday 24 February. We were delighted to welcome back a considerable number of alumni. It was a particular pleasure to welcome back ten alumni from the early 1990s who not only had their own table at the Ball, but also joined a number of academic staff for a lunch and tour in the School. Next year's ball is on Saturday 23 February 2019 and we'd be delighted to see you then, and would be very happy to arrange lunch and a tour on the day. Please [get in touch](#) if you'd like more information.

We also greatly value the alumni who very kindly contribute to the School by returning to give talks, particularly during the student-organised Careers Day which will take place in early November 2018. Please [get in touch](#) if you'd like to help out.

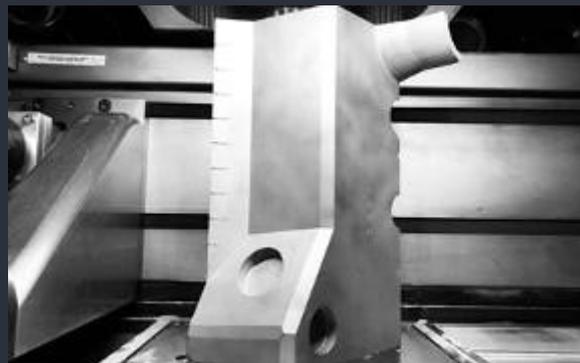
With best wishes

Professor Alison Davenport
Head of School



£42 million for energy storage

The Faraday Institution announced up to £42 million in new government funding to four UK-based consortia



3D printed metals strong and ductile

A new technique by which to 3D print metals, involving a widely used stainless steel, has been shown to

to conduct application-inspired research aimed at overcoming battery challenges to accelerate the electric vehicle revolution.

[FIND OUT MORE >](#)

achieve exceptional levels of both strength and ductility, when compared to counterparts from more conventional processes.

[FIND OUT MORE >](#)

WE ARE BIRMINGHAM

Our 300,000 alumni all share one thing in common: the University of Birmingham. From recent graduates to industry leaders, you are making important things happen. Join the "We Are Birmingham" project and share your story with those following in your footsteps. You can inspire our students and offer an insight into the vast array of opportunities waiting for them; whatever you're doing, they want to hear from you. Plus, anyone who submits a profile before 1 July will be entered into a draw to win a hoard of University merchandise. Share your Birmingham story and help shape their future.

[SHARE YOUR CAREER STORY >](#)



Alumni spotlight

Deborah Harris graduated with an MEng Mechanical and Materials

**GIVE.
VOLUNTEER.
CHANGE
10,000 LIVES.**

Get involved

Since the 10,000 Lives campaign launched in September, alumni and

Engineering in 2016. She reflects on her time at University and offers an insight into how Birmingham made her the person she is today.

To share your story simply fill complete a [career profile](#) or [email us](#). We'd love to hear from you.

[FIND OUT MORE >](#)

friends of the University have changed the lives of 1,062 young people. 200 of these are students in the College of Engineering and Physical Sciences!

Will you step forward and change a life?

[FIND OUT MORE >](#)

University Reunion 2018

The Alumni Reunion 2018 is a great opportunity to rediscover what made Birmingham "home" for you and renew your lifelong connection to this special place. Reconnect with friends and classmates and see how Birmingham has grown into the university it is today. Join us for a day of celebrations including campus tours, stress-free lectures, a chance to visit some of the latest additions to campus such as the new Library, Sports Centre and Collaborative Teaching Laboratories, and plenty of time to reminisce. In the morning you will visit us in Metallurgy & Materials and hear how we have changed since you were last with us. You never know there may be some familiar faces there with you!



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Society news: a winning year!

There are now six student groups in Metallurgy & Materials: [BUMS](#), [NucSoc](#), [oSTEM](#), [UBRacing](#), [WISE](#) and [SATNAV](#). They do great work to build our School community.

The College of Engineering and Physics Sciences is home to 29 societies. It's been an amazing year of careers activities, volunteering, competitions and, of course, social events so there's plenty to tell you.

[FIND OUT MORE >](#)



EPS Societies' Awards 2018

Were you a member of a society? Wish you had been? Or have you been impressed reading about our [student groups](#)? Why not nominate them for an EPS Societies' Award.

These Awards celebrate the lengths our students go to make the University a better place. Join our celebrations by nominating your society; maybe they'll win the much coveted *Society of the Year* trophy.

[NOMINATE >](#)

News Round-Up

Professor David Phillips, alumnus and Past President of the Royal Society of Chemistry, delivered the latest [EPS Distinguished Lecture entitled "Light Up Your Life"](#).

It is with sadness that we note the death of [Professor John Knott OBE FEng FRS](#) on 5 October 2017 following his long battle against ill-health.

[Shedding light on new battery materials](#): the vision of combining experiments with computation.

[UBRacing have their best year to date](#) and pick up three trophies at the 2017 UK Formula Student Competition.

[A Cool World](#): the energy conundrum we are not discussing.

The Efficient Manufacturing for Aerospace Components Using Additive Manufacturing, Net Shape HIP and Investment Casting (EMUSIC) project has published its summary mid-term report [showing progress on improving manufacturing efficiency](#).

The University has signed an agreement with the University of Science and Technology Beijing to create [new education programmes for Chinese students](#).

Metallurgy & Materials students are part of the team who [won the prestigious Vice-Chancellor's Challenge](#) for their pioneering design of a solar pod.

Broadcaster, journalist and University honorary graduate [Simon Singh delivered the 2017 EPS Christmas Lecture](#). Our scientific journalistic society SATNAV interviewed him during his visit.

From the many inspiring research projects across the University, we've selected three that have the potential to change lives. Which one is your favourite? [Vote for the project you're passionate about](#) and the University will fundraise for the winner over the next year.

Events

A full list of alumni events, including Reunions and Global Gatherings, is available [online](#). Here are just a few events coming up in Metallurgy & Materials and the College of Engineering and Physical Sciences:

Wednesday 6 June

[EPS Societies' Awards](#)

Celebrate with your student society as we recognise their extraordinary achievements with a gala, black-tie evening.

Time: 7pm-11pm

Venue: Great Hall, University of Birmingham

Wednesday 4 - Saturday 7 July

[5th UK-CN Steel Research Forum](#)

The UK-China Steel Research Forum is a well-established biennial academic conference for steel researchers across the UK and China, with support from major steel-making companies, steel research institutions and research funding bodies from both countries. This year's conference will be held in conjunction with the 16th Conference of Chinese Materials Association in the UK on Materials Science and Engineering.

Wednesday 19 September

London Mathematical Society Popular Lectures

We are proud to begin the 2018/19 Birmingham Popular Mathematics Lecture series with the London Mathematical Society Popular Lectures, which are suitable for all who have an interest in Mathematics, presenting exciting topics in mathematics and its applications.

This year Katie Steckles (Maths's Greatest Unsolved Puzzles) and Jennifer Rogers (Risky Business) will be speaking

Time: 6:30-9pm

Venue: Bramall Music Building, University of Birmingham

Saturday 29 September

University of Birmingham Alumni Reunion

Join us for the big Anniversary Reunion on Saturday 29 September 2018. Whether you're celebrating your 50th anniversary or your 5th anniversary, come back to the Edgbaston campus and celebrate your University with staff, students and fellow alumni.

Time: 10am-5pm

Venue: University of Birmingham, Edgbaston Campus

Saturday 23 February 2019

Materials Ball

Save the date for our annual departmental celebration!



You are in control of your data. We want to stay in touch with you and keep your information in accordance with your wishes. You will be kept updated with news from our campus, including research, educational activities and courses, events, alumni activities, and opportunities to support our fundraising and volunteering programmes. Depending on [your preferences](#), you will receive communications via post, email, telephone, SMS text messages, and social media. We would like to ensure that our interactions with you are appropriate and cost-effective. We will pay attention to your responses (including e-tracking) and, from time to time, may use your data for profiling, wealth screening, targeting, and research purposes. Your information will be [held securely](#) by the University of Birmingham and will only be made available to our academic & administrative departments, recognised alumni groups, and trusted agents acting on behalf of the University. We will never sell your personal data or share it for non-University

of Birmingham programmes. If you decide to donate to the University, you can choose whether to give anonymously or be recognised on our Donor Rolle of Honour. Information on how your data is held and used is set out in our Data Protection Statement at www.birmingham.ac.uk/dataprotection. If you wish to opt-out of any contact or have any questions about your personal data, please contact Luke McGarrity on L.McGarrity@bham.ac.uk. Our Inland Revenue Charities reference number is X7237.