

UNIVERSITY OF  
BIRMINGHAM

# School of Mechanical Engineering Community

Part of  
THE EPS COMMUNITY



**Spring 2016**

## **Greetings**

Welcome to our latest Mechanical Engineering Alumni newsletter; and the first from me.

You will see elsewhere in the newsletter that the New Year saw the start of an exciting new chapter for engineering at the University, with the bringing together of Mechanical Engineering, Electronic, Electrical and Systems Engineering, and Civil Engineering into one combined School of Engineering I was delighted to be able to take on the role of Head of Mechanical Engineering, although I am acutely aware that I have a tough act to follow as Professor Duc Pham has provided excellent leadership for over four years.

I believe that the alignment of the three engineering disciplines under one academic roof is a positive step for us all. Whilst there are skills that are core to Mechanical Engineering, we must recognise that most practical engineering is undertaken in a multidisciplinary manner, with various disciplines collaborating to achieve an overall aim. At Birmingham we are committed to producing employable graduates who can offer value to their employers from Day 1. Consequently we feel it is an obvious move to help prepare our students for working life by exposing them to interdisciplinary activities throughout their time with us. At the same time we will ensure they continue to learn the core skills required to be a Mechanical Engineer.

But it isn't just in undergraduate teaching where we will see benefits. The formation of the new School has enabled us to redefine and refine our research activities, bringing our world-leading researchers from the three disciplines closer together to deliver excellent research with greater impact.

Our students are going from strength to strength with JUGS doing us proud on the sports pitch, organising more social events than ever and making it to the semi-final of the

College-wide Engineering and Physical Sciences University Challenge. UBRacing has secured one of the coveted awards offered by the Institution of Mechanical Engineers and are busy working towards Formula Student in July. UBRobotics are also preparing for competition and I look forward to telling you how well they both do in the next update. All three of our societies are thoroughly deserving of one of EPS Societies' Awards so please do show your support and nominate them!

This year has seen the passing of one of our most highly thought of and loved colleagues: Professor Freddie Bakhtar. Freddie spent the vast majority of his life at the University and I can't think of a single person who hasn't been touched by his compassion or love for life. To remember our dear friend we are launching the Professor Bakhtar Memorial Fund which will offer financial support to high-achieving students in thermodynamics, a field in which Freddie made great inroads during his professional career. I would be honoured if you would help support this fund and donate as much or as little as you can in Freddie's memory.

One final note – it would be great to see as many of you as possible at the forthcoming Alumni Reunion. Like previous years, we are inviting all of our former students to return to campus on Saturday 18 June to reminisce with friends and find out how the University has changed since your time as a student. It would be lovely to see you there too!

I would like to wish you all a pleasant Spring and I look forward to updating you with the latest news from the Department and our students in the Summer Term.

Best wishes,

**Professor Duncan Shepherd**  
**Head of Mechanical Engineering**

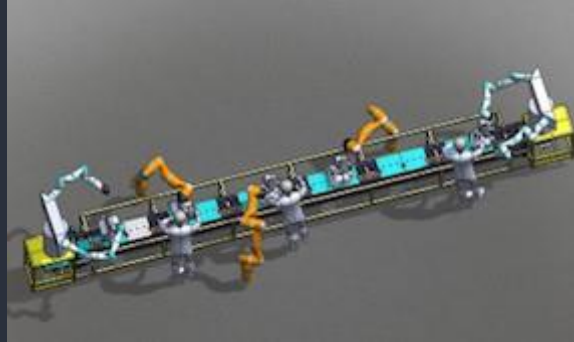
## School of Engineering

In January our new School of Engineering was launched, aligning the activities of Civil Engineering, Electronic, Electrical and Systems Engineering, and Mechanical Engineering. Engineering is one of the key drivers for economic growth and continues to demand high quality graduates, world-leading research and multi-disciplinary knowledge in order to meet the grand challenges of modern society. This new School will create a multi-disciplinary vibrant environment for outstanding study and research.

Professor Mark Sterling has been appointed Head of the School following a successful period as Head of Civil Engineering. Mark says: "I am delighted to have the opportunity to take forward the new School of Engineering. For me, this represents a chance to build

upon our existing strengths in research, teaching and student experience and to develop a more flexible and contemporary educational model based on essential engineering fundamentals.”

The University continues to innovate in order to meet these challenges and builds on a strong disciplinary heritage in key areas of engineering. We are proud to have educated generations of engineers; over the past 100 years we have equipped our graduates with expertise in a wide range of fields from brewing to mining, intelligent robotics to automated technologies. Now we must look to the future and prepare our students for what's next.



## Robotic disassembly technology as a key enabler of autonomous remanufacturing

Professor Duc Pham provides comment to the Centre for Remanufacturing and Reuse on a new £1.94m five year collaborative project researching how robots can help the manufacturing industry use natural resources more efficiently

[FIND OUT MORE >](#)



## Join us in honouring Professor Freddie Bakhtar

We are delighted to establish the **Professor Bakhtar Memorial Fund** to remember a dear friend. Freddie committed himself to the University for 65 years as a student, teacher and long-serving professor. He was a passionate researcher, a committed teacher and a man of great integrity who touched many people during his glorious life.

The fund will support a new prize for the highest-achieving student of Thermodynamics. The **Professor Bakhtar Memorial Prize** will both remember Freddie and support our outstanding students. We would be honoured if you would like to make a gift to this fund and remember Freddie . If you would like to make a donation or find out more please

email us.

[EMAIL US >](#)

## Your Mechanical Engineering Reunion

Join us on Saturday 18 June for our annual Mechanical Engineering Reunion. Whether you graduated five or 50 years ago we invite you to get together with old friends and former classmates to reminisce and celebrate your experiences and friendships from the University of Birmingham. While we do celebrate milestone anniversaries, all alumni are welcome to attend this special Reunion Day regardless of your graduation year.

Take a trip down memory lane with a tour of Mechanical Engineering and explore our beautiful campus to see what has changed, and indeed what has stayed the same, since your time at Birmingham. Why not get a group of friends together? We are happy to help contact those you have lost touch with.

50th and Golden Anniversary tickets cost £45 and include a two-course formal lunch. All other tickets are £42 and include a hot buffet lunch. All bookings made before Friday 22 April 2016 are eligible for a £5 early booking discount.



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## EPS Societies' Awards 2016

Were you a member of a student society during your time at Birmingham? Or have you been impressed reading about the activities of our [current student societies](#)? Why not nominate them for this year's Societies' Awards?

These Awards celebrate the lengths our students go to make the University a better place to work and play. Join our celebrations by nominating your society for these Awards. Maybe your former society will win the much coveted *Society of the Year*?

They need your help!

[FIND OUT MORE >](#)

## Societies' News

It's been a busy term for our societies! Philip Pagani, newly elected Vice-President of [JUGS](#), Francesca Cardilli from [UBRacing](#), Amir Hajiyavand from [UBRobotics](#) and the [WISE](#) committee tell us about their activities over the past few months, from industrial events to sporting competitions and introducing their new committees. This term we also welcome four new societies to our community: [Drone Soc](#), [Games Development](#), [SATNAV](#) and [oSTEM](#).

The College of Engineering and Physics Sciences is home to 24 student societies. Each does fantastic work to promote employment opportunities, industrial visits, guest speakers and, of course, social events.

[FIND OUT MORE >](#)

## News Round-Up

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

Professor Dave Charlton, Spokesperson for the ATLAS Collaboration at CERN, delivered the latest [EPS Distinguished Lecture on the future of the world's largest scientific instrument](#) and the engineering involved.

The Birmingham Energy Institute welcomed representatives from businesses and universities across Brazil to explore future partnerships that could see [Brazilian cities testing innovative technology](#).



## Micro-Volunteering Day, 15 April

To mark international Micro-Volunteering Day on 15 April there's a whole range of opportunities to support Birmingham – all in fifteen minutes or less.

These bite-sized tasks can have a big impact – from offering advice to students, to celebrating with the our newest alumni by sending in your graduation memories. In Mechanical Engineering we particularly want to hear what you've been up to since graduating and how your careers have progressed so we can share your stories with our current students.

[FIND OUT MORE >](#)



## Alumni News

Matthew Fox (MEng Mechanical Engineering 2015) tells us about life after graduation, including working for Rolls-Royce and completing the Mongol Rally.

If you would like to share your story we would love to hear from you.

Simply fill complete our [online career profile](#) or [email us](#) to tell us more.

[FIND OUT MORE >](#)

## Events

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

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

**Friday 6 May**

### [Mathematics in Railway Industry](#)

Join the Birmingham Centre for Railway Research and Education for this free workshop on mathematics in the railway sector, including a technical visit to the newly refurbished Birmingham New Street Station.

**Time:** 9:30am-6pm

**Venue:** Gisbert Kapp Building, Edgbaston Campus

### **Friday 13 May**

#### **[Alumni Reception in Singapore with the Vice-Chancellor](#)**

Join the Vice-Chancellor, Professor Sir David Eastwood, for an alumni reception in Singapore.

**Time:** 6:30pm-8:30pm

**Venue:** The Ritz-Carlton, Millenia Singapore

### **Tuesday 17 May**

#### **[Birmingham Heroes Lecture: Unlocking the immune system](#)**

In the fifth Birmingham Heroes lecture, Professor Gary Middleton, Professor of Medical Oncology at the University's Institute of Immunology and Immunotherapy, will present the research and work being undertaken by the Cancer Immunology and Immunotherapy Centre at Birmingham, and how they are developing treatments to protect, harness and enhance the immune system's response to cancer.

**Time:** 6:45pm-8:45pm

**Venue:** 10-11 Carlton House Terrace, London

### **Wednesday 8 June 2016**

#### **[EPS Societies' Awards](#)**

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

**Time:** 7pm-11pm

**Venue:** 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, 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

### **Thursday 23 June London**

#### **[Professional Network 2016](#)**

This popular network is the perfect opportunity to enhance your portfolio of contacts and to meet alumni working in related professions, whilst enjoying wine and canapes.

**Time:** 6:30pm-8:30pm

**Venue:** The Royal Academy of Arts, London

### **Global Alumni Gatherings**

The University of Birmingham has alumni groups all over the world organising local events. A full listing of international events is available on our [website](#). To join a group and see details of upcoming please visit the [webpage](#) and select your location



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