

School of Computer Science Family

Part of THE EPS COMMUNITY



Spring 2018

Greetings,

It is an exciting time for Computer Science. As algorithms continue to change the way in which people work and live, there is increased recognition of the importance of computer science education and research. In fact, this year we have seen the school **partner with** **PwC** who will fund 40 of our undergraduate students a year for the next 5 years as degree apprentices. Funding will cover fees and salary and the partnership is helping us pursue our diversity ambitions with an increased rate of application from young women who are interested in computer science. Further, PwC expects to employ all sponsored students once they graduate.

Inevitably, two areas of interest for PwC are Artificial Intelligence and Cyber-security. Thanks to the foresight of previous members of the School, these are areas of historic and continuing strength. While in September 2017 we were sad to see the departure of Dr Nick Hawes for the Oxford Robotics Institute, we were pleased in January to welcome Dr Hyung Jin Chang from Imperial College. Dr Hawes' research is, of course, in autonomous robotics and many of you will remember his highly regarded robotics modules. We wish him well in his new post.

Dr Chang's interest is in computer vision and his algorithms can be used to recognise human movements, amongst other applications. He joins Professor Ales Leonardis in our Computer Vision Group. This group, along with others interested in vision, imaging and machine learning, form one of the themes that the University will pursue as part of its membership of the **Alan Turing Institute**, which was announced this January.

In Cyber-Security we saw the appointment of [**Dr Christophe Petit**](#) who moved from the University of Oxford in January 2017. Dr Petit's research interests are in cryptography. Also in Cyber-Security, we are proud that Dr Flavio Garcia was awarded a 5-year EPSRC Research Fellowship for his work in automotive security. This is a considerable achievement and will help build the School's already substantial reputation in cyber-security research where we count Hewlett-Packard, GCHQ, and Jaguar Land Rover amongst our partners. In the near future we will put considerable effort in applying our expertise to the problem of cyber-security in major infrastructure.

Another new member of staff, [**Dr Jamie Vicary**](#) moved to Birmingham from the University of Oxford in January 2018. Dr Vicary is funded by a Royal Society Fellowship and he joins new appointees and Birmingham Fellows, Dr Benedikt Ahrens and Dr Noam Zeilberger, in the Theory Group. Dr Vicary's interests are in higher category theory and its applications at the interface between computer science and physics, particularly in areas related to quantum structures.

Our other major areas of research interest are in Computational Life Sciences and Human-Centred Computing. In the former we have seen the promotion to Chair of [**Professor Hamid Dehghani**](#). Prof Dehghani's recent work has included research into real-time functional brain imaging with diffuse optical tomography. We also appointed [**Dr Sandy Gould**](#), from University College London, as a Lecturer in Human-Centred Computing. Dr Gould's interests are in the design of computing systems for complex work environments that involve people striving to achieve multiple concurrent goals.

To close, I want to thank all of our alumni for their continued support for the School. I want to give particular thanks to Conrad Wong, Vice-Chairman of Yau Lee Construction and an alumnus of the University, who has offered funding for a PhD studentship in Artificial Intelligence. Conrad's gift is just one illustration of the generosity with which our alumni network helps us in our mission to create and disseminate knowledge.

With best wishes,

Professor Andrew Howes
Head of School
Fellow of the Institute for Global Innovation



Birmingham joins the Alan Turing Institute

The University is set to become part of The Alan Turing Institute, which is named in honour of the British pioneer whose work in theoretical and applied mathematics and computing laid the foundations for the emerging field of data science.

[FIND OUT MORE >](#)



Emojis and their secret language and meanings

Dr Sandy Gould has collaborated with Dr Sarah Wiseman from Goldsmiths, University of London to investigate the use of emojis and their secret "languages" that allow personalised communication between friends and family members.

[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.

MENTORING

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

Could you mentor?

We're launching a Tech Mentoring programme and are looking for professionals working in or with technology. Could you provide a Computer Science undergraduate with an insight into this fast-growing sector?

[Email us](#) to get involved. We'd love to hear from you!

[GET INVOLVED >](#)

Get involved

Since the 10,000 Lives campaign launched in September, alumni and 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 Computer Science and hear how we have changed since you were last with us. You never know there may be some familiar faces there with you!



[FIND OUT MORE >](#)



Society news: a record year!

There are now seven student groups in Computer Science: [CSS](#), [BARC](#), [Games Development](#), [Mozilla Club](#), [WISE](#), [oSTEM](#), and [SATNAV](#). They do great things for our 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".](#)

Professor Jeremy Wyatt talks [robotics and the future for jobs](#) on the recently broadcast Guardian Podcast

Professor Karen Yeung, an Interdisciplinary Professorial Fellow in Law, Ethics and Informatics, [recently featured on BBC Newsnight discussing personal data and radical transparency.](#)

Dr Kashif Rajpoot has collaborated with the University of Warwick in the development of a [new test for detecting autism.](#)

Professor Hamid Dehghani talks about his first experience with [biomedical optics.](#)

The [University of Birmingham to open a campus in Dubai](#) offering Computer Science degrees in November 2018 becoming the first global top 100 and Russell Group University to establish a campus in this rapidly developing international education hub.

The UK's world-class expertise in the research of biofilms has been recognised through the [launch of a new National Biofilms Innovation Centre.](#)

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 Computer Science 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 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

Monday 29 July - Friday 2 August 2019

[British Combinatorial Conference](#)

The University will host the British Combinatorial Conference. More information about the conference will be published soon.



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.