

**Contents**

News from HoS  
This Week  
School Events  
External Events  
Funding Opps  
Prize & Award  
Opps  
Research Awards  
Staff News  
Vacancies

**Links**

News  
Submissions  
[Newsletter](#)  
[Archive](#)  
School Strategy  
School Intranet  
School Seminars  
ESNW Seminars  
NaCTeM  
Seminars

**News and announcements****Call for team members: MIB-based iGEM team for 2015 competition**

Any UG/Masters/PhD students that might be interested should come to a meet-up on the 10th December 13:00 at Manchester Institute of Biotechnology, room G.051. **We are looking for team members across all scientific disciplines (computing sciences, humanities, economy etc. are welcome).**

The [International Genetically Engineered Machine competition \(iGEM\)](#) is the premiere undergraduate Synthetic Biology competition. Student teams are given a kit of biological parts at the beginning of the summer from the [Registry of Standard Biological Parts](#). Working at their own schools over the summer, they use these parts and new parts of their own design to build biological systems and operate them in living cells. This project design and competition format is an exceptionally motivating and effective teaching method.

For more information please visit <http://igem.org/About>. Please send [Eriko Takano](#) your CV with your course details.

**University of Manchester wins worldwide computing competition**

A team from the School of Computer Science has won the first International Competition for Runtime Verification. The Manchester entry won outright in 2 out of the 3 competition tracks against strong teams from across Europe and North America.

Runtime Verification is the process of assessing the behaviour of a computational system whilst it is running by monitoring events generated from the system. An international team including Giles Reger, Howard Barringer and David Rydeheard, here in the University of Manchester, has developed a new mathematical foundation for Runtime Verification, called QEA. Based on this mathematics, Giles Reger together with an MSc project student, Helena Cuenca, implemented a new way of producing efficient monitors. The competition showed that these monitors are both more expressive and faster than those produced by other research groups.

[More details.](#)



Helena



Giles

**John Keane in the News!**

John was quoted in [The Independent](#) on 18<sup>th</sup> November talking about courses in data and knowledge management at both postgraduate and undergraduate level, says. Professor John Keane, from the School of Computer Science, says: "Data science is very popular and it's a generic skillset that can be applied across many areas such as social sciences, business, science and engineering and medicine and life science."

## Digital Economy Programme Advisory Board (PAB) – call for new members

**Deadline: 05 December 2014**

The recruitment process is completely open; individuals may nominate themselves for membership or they may be nominated by colleagues or other bodies (universities, companies, learned/professional societies etc.). Full details of members' roles, vacancies, the recruitment process and the assessment criteria for selection can be found on the [EPSRC website](#).

## EPSRC Photo Competition

**01 Dec 14**

**Deadline: 01 December 2014**

For all EPSRC-supported researchers and EPSRC-supported doctoral students to share their research using images. Images must demonstrate research in action. Win up to £500 worth of camera/photography equipment.

## Events

### Digital Economy YES 2014

**24-26 Nov 14**

**Event:** 24-26 November 2014, Imperial War Museum in Manchester

The rescheduled Digital Economy Young Entrepreneurs Scheme (DE YES) is now open for entries either from individuals or from teams of 4-5 people. A briefing session for participants will take place on the 28th October in Nottingham.

DE YES is designed to develop business awareness and an understanding of entrepreneurship in UK **postgraduate** and **postdoctoral researchers**. The three day event includes an expert speaker programme and business mentoring opportunities, culminating in a competition where teams of researchers work together to prepare a business plan which will be pitched to a panel of judges.

[Further information](#)

### School seminar: EPSRC ICT Theme: Strategy, Priorities and Update

**26 Nov 14**

14:00, lecture theatre 1.4, Kilburn building.

Dr Liam Blackwell, EPSRC.

[Seminar homepage](#)

### Horizon 2020 – ICT 30 Community Networking day

**27 Nov 14**

Held in London

The Horizon 2020 ICT 2015 ICT 30 call opened on 15 October with €51M available for large projects in 'Internet of Things and Platforms for Connected Smart Objects'. This is potentially a great opportunity but what's required, how does the process work and how do you connect with the European actors? The KTN is pleased to host a Community Networking day in London on 27th November where you can get details of the call, learn how H2020 works and decide if it's for you, meet representatives of the EU Public Private Partnerships (that set the Strategic Research Agenda) and have the opportunity to flag your interest by presenting your credentials and/or outline project proposals.

[More information](#)

Event: 3-5 Dec 2014, Imperial College London.

### Biosensing for Health - a HTC-KTN event

**28 Nov 14**

Event to be held in Leeds.

The development of clinically useful biosensors presents many challenges to both the academic and medical fields. Initially it is vitally important to identify appropriate

targets for the conditions to be tested. Only then can work on a recognition system, a signal transducer and a signal processing component commence. At this meeting we will bring together, clinical, academic and commercial expertise in all of these areas to develop working consortia that can access appropriate funding to further research in this area. Although the HTC is focused on colorectal disease we wish to draw in expertise in this field from any clinical or academic specialty.

[More information](#)

### **RCUK's fifth annual Digital Economy, All Hands Meeting**

**03-5 Dec 14**

Imperial College London.

The event will be opened by Imperial College London's incoming president, Professor Alice Gast, and Ed Vaizey MP, Minister of State for Culture and the Digital Economy. DE/2014 is a unique multidisciplinary environment on global digital economy, exploring concepts from the cutting edge in digital economy research, technical challenges, and user engagement, through to latest thinking on privacy and data sharing to exploring how to create value from digital data. These issues will be explored through a mixture of curated activities, submitted papers, posters, videos and technical demonstrations. [Register now](#).

**DE/2014 for Students!** DE/2014 and the Digital Economy Network are offering student bursaries of up to £200 to attend. To apply for this, simply contact [de2014@imperial.ac.uk](mailto:de2014@imperial.ac.uk)

[More information](#)

### **High Performance Computing & Big Data Conference**

**03 Feb 15**

The day will centre on the latest developments of HPC and big data and exploring the innovative ways in which it is being utilised across both academia and industry. Please take a minute to look over the agenda [here](#). There are a number of discounts offered to academics in addition to the current early bird discounts. Please contact [Tom Naughton](#) to discuss this further (or 0161 211 3447).

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## **Funding Opportunities**

### **Research Support Office**

Please contact us through [researchsupportcsm@manchester.ac.uk](mailto:researchsupportcsm@manchester.ac.uk).

There is information about support for grant writing, submission and successful examples at <http://staffnet.cs.manchester.ac.uk/reso/> and through [EPS](#). The EPS blog [The Word](#) contains features News, Events and comment relevant to Postgraduate Researchers, Research Staff and Supervisors or PIs.

### **Important: Changes in EU Funding Opportunities**

More detailed information is available now that for Horizon2020 has started (the successor of FP7 EU programme). EU research funding is important for the School and it's important to understand what's available

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/index.html>

EU funding-related documents are placed by the University's EU team at:

<http://documents.manchester.ac.uk/search.aspx>

The easiest way to find these documents is to search using the keyword: '**Horizon 2020**'

A great resource recommended by the ICT National Contact Point is <http://www.ictic.org/>, which also provides handy overview documents.

### **Royal Academy of Engineering's 2015 ERA Foundation Award**

**01 Dec 14**

**Deadline: 01 December 2014**

The RAEng-ERA Foundation Award encourages and rewards entrepreneurial engineering researchers working in UK universities, in the field of electro-technology. The winner receives a personal prize of £10k with an additional £30k to invest in the development of the winning idea.

Winners are invited to become members of the Enterprise Hub where they receive ongoing support and business mentoring from the Academy's Fellowship, which includes some of the UK's most successful technology entrepreneurs and business leaders. The Academy is committed to diversity and we welcome applications from minority and under-represented groups in engineering, and especially women. If you have any queries, please do get in touch with the programme manager [Catherine Lawrence](#) / 020 7766 0615.

[More information](#)

**REMINDER: EPSRC Making sense from data**

**06 Jan 15**

**Closing date: 16:00, 06 January 2015**

The EPSRC Information and Communication Technologies (ICT) Theme is inviting outline proposals that explore how to extract meaning from data. Funds of up to £5 million are available, which is expected to support 4-6 research projects, subject to the quality of the proposals received. This call is being issued as part of the "[Towards an Intelligent Information Infrastructure](#)" cross-ICT priority. Collaboration with industry and other users is encouraged. ICT research and proposals that lie at the interface with ICT research and are relevant to the scope of this call, such as mathematics and other relevant disciplines, are welcome. Specifically, the EPSRC are looking for projects that explore how to make sense from data, by addressing high impact challenges such as how to:

- convert the vast amounts of data produced into understandable, actionable information
- efficiently and intelligently extract knowledge from heterogeneous, distributed data while retaining the context necessary for its interpretation
- ensure new techniques are realistic, compatible and scalable with real-world services and hardware systems

[EPSRC: Making sense from data](#)

**REMINDER: User interaction with ICT**

**06 Jan 15**

**Closing date: 16:00, 06 January 2015**

EPSRC is inviting outline proposals encouraging researchers to look at opportunities for **how humans will interact with ICT technology** in the future. Funds of up to £5 million are available, which is expected to support 4-6 research projects, subject to the quality of the proposals received. This call is being issued as part of the "[Towards an Intelligent Information Infrastructure](#)" cross-ICT priority. Collaboration is encouraged. The scope of the call includes (but not limited to):

- **Extending interaction.** The development and evaluation of new techniques of interaction and use, including new modalities of input and output, and new sensors and devices.
- **Building.** The development and evaluation of platforms, architectures or component technologies that underpin the interaction between humans and ICT systems.
- **Understanding users.** Studies of different target groups and settings to inform the invention and design of new technologies.
- **Evaluation.** The use of experiments, studies, envisionment workshops and other forms of user engagement to understand or evaluate proposed designs or prototype technologies.

**Remember: ICT portfolio manager Lisa Coles and Miriam Dowle will be visiting**

the School on 26 November.

### User interaction with ICT

**User Experience; better interactions between people and machines: KTPs**

**Apr 15**

**Deadline: April 2015**

Innovate UK (previously TSB) is to invest up to £1m in Knowledge Transfer Partnerships (KTPs) in the area of user experience (UX), the aim is to encourage new, **enhanced forms of interaction between computing systems and the people who use them**. This competition will support up to 10 KTP projects of between 6 and 36 months, for greater knowledge and skills transfer relating to user experience from the cutting edge research base into industry.

The University [KE Team](#) are available to discuss potential projects and there is support available for the scoping, development and submission of applications.

[More info](#)

**Coming-up: RAEng Engineering Leadership Advanced Awards**

**Due to open: November 2014**

This programme aims to provide support and motivation to some of the most **exceptional engineering undergraduates** in UK universities. These awards help ambitious and inspiring engineering undergraduates, who want to become leadership role models for the next generation of engineers, to undertake an accelerated personal development programme. Recipients will get the opportunity to acquire the skills needed to fulfil their potential, helping them to move into engineering leadership positions in UK industry soon after graduation. For further queries, please email [Ms Jacqueline Clay](#).

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## Featured Research Outcomes

**Did you know...**papers featured in the newsletter also go on display in the Kilburn Building (outside finance: 2.03)? Send your new publications to [Robert Stevens](#) so that more people get to know about your research.

**ECO2Clouds project assessed as EXCELLENT as its final review**

The EU-funded FP7 project involved SCS and MBS with **Usman Wajid** as the RA and lead at Manchester. Other staff involved were: **John Keane, Cesar Marin, Nikolay Mehandjiev, Pedro Sampaio** and **Xiaojun Zeng**. Congratulations to all involved.

The project aimed to reduce the environmental impact of cloud computing; results show that the eco-aware application deployment strategies devised at Manchester yield up to 80% reduction in CO2 footprint of cloud applications.

**RETHINK big initial working group meeting**

With the aim of harnessing the expertise of key stakeholders in hardware, networking and algorithms for the processing of big data, the **RETHINK big** project organized an [initial working group meeting](#), hosted by the Universidad Politecnica de Madrid (Madrid Polytechnic University) on 18 and 19 September 2014. The objectives were to identify challenges across European big-data sectors, to develop a shared language to discuss these and to identify key strategists within each organization. Manchester were well represented at the event with **Mikel Lujan, Dirk Koch, Dave Lester, John Goodacre, Andy Nisbet, Christos Kotseldis** and **Sarah Chatwin**. The event attracted project partners and many industrial contacts.

[Flickr page](#)

**Awarded grant:**

**Tim Cootes 'Bonefinder' software expanded to knees and hands**

**Funder:** EPSRC

**Amount:** £300k (Institute of Population Health)

Research into disorders such as arthritis is to be helped by [new software](#) that automatically outlines bones – saving thousands of hours of manual work. The system can already identify hips, but it will now be adapted to map out knees and hands and to be able to learn to identify other bones and structures within the body. Professor of Computer Vision, [Tim Cootes](#) said: “Mapping the outlines of bones from radiographs is hard work that takes time and skill. When researchers into conditions like arthritis are working with hundreds of images, it’s a very inefficient way of obtaining data. The idea of this software is to take the routine tasks out of human hands, so scientists can focus on drawing conclusions and developing treatments.”

*Have we missed something? If you have some award news that you would like us to know about please contact [Sarah Chatwin](#).*