News from the Head of School

Heating and ventilation

You might notice that a window is being replaced on the 2nd floor next to the goods lift. This is an investigation to see how easy it would be to replace the existing fixed single-glazed windows with opening double-glazed windows. Until the trial is complete and the impact on the ventilation system has been established nobody is making any promises. There is also expected to be an experiment with stand-alone radiators in some rooms.

In the meantime, please do email environs@cs.man.ac.uk if there is a problem either with ventilation or temperature in your room – what has become obvious is that if you do not keep reporting problems then Estates will not be aware of any problem in your room, and will not plan to do anything.

2012 i2b2 challenge on temporal relations

A clinical text mining team from the School shared the top position (with the Mayo Clinic and Microsoft Research China) in one of the tasks (temporal expression extraction) at a major international challenge in Natural Language Processing for Clinical Data (the i2b2 2012 Shared Task. https://www.i2b2.org/NLP/TemporalRelations/Main.php


Emma Flynn

Emma Flynn has joined the APEcs team in the role of Advanced Professional Education Co-ordinator.

Events

Lecture Capture - free workshop for EPS staff 19 Dec 12

Lecture capture is a hot topic, and there are many examples across the Faculty of it being used as a teaching aid. But what is good practice in the use of lecture capture?

We are offering you the opportunity to sign up for a free workshop on best practice in lecture capture. Sign up for your place by registering here.

This free workshop will aim to get participants thinking about best practice in the use of lecture capture in teaching and learning, as well as the technologies which can be used. It will take the form of six short, informative presentations by people using lecture capture, followed by facilitated group discussions on identifying and implementing good practice.

Venue: George Begg Building, Room C002, University of Manchester
Date: Wednesday 19th December 2012, 9.30am – 1pm

Topics and speakers:
- Will Video Kill the Lecturing Star? Patrick O’Malley
- Introducing the University’s podcasting service; Stuart Phillipson
- To capture their ears you have to first capture their eyes; Grant Campbell
- Richness, responsiveness and relationship: using rich media to enhance
teaching of core concepts; Fiona Saunders
· Lecture capture with complementary eLearning; John Moriarty
· A practical view to creating lecture screencasts using Camtasia; Megan Jobson
For further information please contact Lynn Cullimore.

**School Christmas Party**

| 19 Dec 12 |
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| **Party time is 3pm on Wednesday 19th December in the senior common room. This year there will be a quiz at 4pm, so get there on time to be in with a chance to win. Pizza will be served at 5pm. Please contribute by bringing along something to drink.** |

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**Funding Opportunities**

**School Research Office**

Please contact us through researchsupportcsm@manchester.ac.uk. There is information about support for grant writing and submission at http://www.cs.manchester.ac.uk/reso/

**Leverhulme Trust Senior Research Fellow**

| 9 Jan 13 |
|-----------------
| • Closing date: 9 Jan 2013 |

Good for sabbaticals...for senior scientists who would benefit from a period of full-time research without teaching and administrative duties for between one term and a year. Additional research expenses up to a maximum of £2,500 are available to each Leverhulme Trust Senior Research Fellow to cover the costs of consumables, equipment, travel and communicating science.

**Royal Society Dorothy Hodgkin Fellowship**

| 10 Jan 13 |
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| • Closing date: 10 Jan 2013 |

The Dorothy Hodgkin Fellowship is for early stage career researchers who require a flexible working pattern due to personal circumstances such as parenting, caring responsibilities or health issues. Female candidates are particularly invited to apply.

**NEMODE Network+ Call for Pilot Studies**

| 11 Jan 13 |
|-----------------
| • Closing date: 5pm 11 Jan 2013 |

£50,000 is available for a pilot project lasting up to 6 months in the development of these themes in New Economic Models in the Digital Economy (NEMODE):

- Platform dynamics: how platforms emerge and evolve over time.
- Economic models articulated around platforms.
- In what contexts are platforms an appropriate economic model?

The pilot should be designed to further develop theoretical insights around platforms as new economic models in the Digital Economy (DE). Proposals should also hold the potential to identify future key research challenges in the context of NEMODE and they are likely to inform both subsequent NEMODE calls and wider RCUK DE themes.

Brief applications (just over 3 pages) following the Platforms as New Economic Models in DE guidelines should be submitted by e-mail to K.V.Alves@exeter.ac.uk.

Successful applicants will be notified in early February 2013, and should commence work within 1 month of award.
Applications for £50,000 are invited for a 6 month pilot study into Big Data, specifically Data-driven Economic Models in the Digital Economy (DE) along the following themes:

- The role of big data in enabling economic and business model innovation.
- The constraints and barriers to exploitation of the value created by the use of big data in economic and business model innovation.
- The future potential of big data in economic and business model innovation, especially given the increasing shift to social and unstructured data.

Successful applicants will be notified in early March 2013, and should commence work within 1 month of award.

Do you have links that you would like to develop with research institutions in either Ghana or Tanzania? 3-year collaborative research funding is available through the Leverhulme-Royal Society Africa Award, including up to £10,000 per year for a PhD Student Bursary.

The Royal Society Medals and Awards 2013 call for nominations is now open! The Milner Award is awarded for outstanding achievement in CS and there are lots of other categories available too, from interdisciplinary research to public engagement.

The EPSRC is seeking applications from prominent industrialists, academics and individuals working in the third sector and government organisations to join EPSRC's Strategic Advisory Network, which advises the EPSRC Executive. There are 8 vacancies available. Please pass on to anyone eligible you know that may be interested in this.

**Research and Grant Awards**

Congratulations to all those involved in the following successful awards!

**GAMMA: Growing Autonomous System Mission Management Applications**

Funding Body: BIS  
Computer Science PI: **Tim Morris**  
Total Award Amount: £686,942

The award funding will allow academics in CS, MACE and EEE to collaboratively research Autonomous Systems (AS) with BAE Systems and involving the NW Aerospace Alliance and 4 other NW universities. AS technology will be transformational to business and society; providing machines with the capability of making decisions based on knowledge from the surrounding area and without human input, which is of particular interest in Aerospace. The point is to provide
aerial platforms that will fly more or less autonomously and carry sensors to make measurements that couldn’t be easily done any other way.

Look out for internal workshops that will run over the 3 year course of the research, to initiate and support networks in other discipline areas where AS can be exploited, such as energy, traffic management and earth sciences.

**Suspended graphene and carbon nanotube device arrays by bottom-up assembly**

Funding Body: EPSRC  
PI: Aravind Vijayaraghavan  
Award Amount: £125,380

Although graphene and other nano forms of carbon demonstrate high performance electronic, mechanical and optical properties, there are barriers to commercialisation in their limited reproducibility and scalability of conventional (top-down) technologies. New unconventional approaches are required to fabricate devices on a large scale at high integration densities, whilst remaining compatible with existing CMOS technology.

We will be the first to attempt large-scale bottom-up assembly and integration of nano-carbon spin-valves, comprised of ferromagnetic electrodes and graphene/ CNT spin-channel, which will demonstrate a viable route for future nano-electronic circuits based on quantum-computing. The result will be a suspended configuration, which will overcome the effects seen with substrate-supported devices. Suspended devices should possess high sensitivity and lower noise than substrate-supported systems and allow for the creation of devices that are not otherwise possible such as nanoelectromechanical systems (NEMS), like resonators for mass-sensors.

**The Limits of Decidability: Counting, Transitivity, Equivalence**

Funding Body: EPSRC  
PI: Ian Pratt-Hartmann  
Award Amount: £71,958

The use of first-order logic to describe, query or manipulate structured data forms the basis of various important practical applications in Information Technology, in particular, ontology-specification languages such as OWL and RDF-S, query languages such as SQL and SPARQL, and specification languages such as Z and VDM.

A set of formulas (in some logic) is said to be satisfiable if a structure exists that makes all of its members true, and most important logical problems can be reduced to the problem of determining satisfiability. However, the satisfiability problem for full first-order logic is undecidable: no computer program can determine—even in principle— whether a given first-order formula is satisfiable. Decidable fragments of first-order logic are used to overcome this problem. This results in a trade-off between expressive power and computational manageability: the more you can say in logic, the harder it is to reason with. Research into decidable fragments of first-order logic attempts to establish the exact terms of this trade. The aim of this research project is to determine the decidability (and computational complexity) of the satisfiability problem for fragments lying near the upper limit of decidability, and thus to help identify the exact location of this boundary.

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