



The way we were: the common room at the former premises in Mill Lane

## Focus on: our three new lecturers

The IfM welcomes three new lecturers as the academic year starts:

- Dr Michaël De Volder – University Lecturer in Design
- Dr Ronan Daly – University Lecturer in the Science and Technology of Manufacturing
- Dr Chander Velu – University Lecturer in Economics of Industrial Systems

### Michaël De Volder

Michaël arrives in September from the University of Leuven, Belgium, where he obtained his bachelor and masters degree in mechanical engineering. He started his PhD in the field of microsystems technology studies at the same university and in part at the Tokyo Institute of Technology. He specifically focussed on the development of microactuators that are able to generate high forces for applications including minimally invasive surgery.

He then worked as a postdoc researcher at the Massachusetts Institute of Technology, the University of Michigan, Harvard University and the University of Leuven. His postdoc research focussed on the fabrication of carbon nanotube devices using lithography driven top-down techniques, as well as bottom-up self-arrangements of nanotube powders.



Michaël also worked on the same topic for several years at imec, an industry funded microelectronics research institute, before joining the IfM. He is a recipient of an ERC starting grant, and is a Fellow of St John's College.

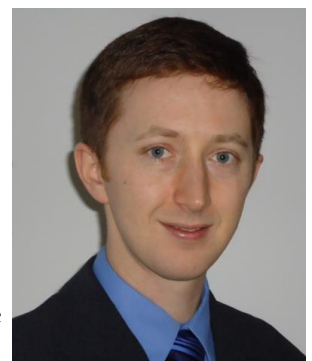
His academic and research interests are in carbon nanomaterials (CNTs), which have been pivotal in attracting industry's interest in nanotechnology. This can best be quantified by the production capacity of CNTs which is currently estimated to be several thousand tons per year.

### Ronan Daly

Ronan started his new role in August.

He is also part of the Inkjet Research Centre and an SCR Associate at Churchill College.

Ronan is from the seaside village of Portmarnock in Co. Dublin, Ireland. He moved to complete an MEng in Chemical Engineering with European Studies at the University of Edinburgh (1998-2003) before joining the Unilever Future Leaders Programme in R&D.



He worked in a number of research, formulation development and supply chain roles with his final position as process technology manager, leading the scale up work for a range of deodorant/antiperspirant innovations from lab to pilot and factory scale.

Ronan returned to Ireland, married and decided to learn more about the up and coming world of nanoscience. He completed a PhD in the School of Chemistry and the Centre for Research on Adaptive Nanostructures and Nanodevices (CRANN) in Trinity College Dublin. This work focused on building an understanding of a self-organisation technique to make highly ordered porous polymer materials for drug delivery applications by using water droplets to template the polymeric matrix.

Ronan joined the IfM in 2011, as part of Project BiognostiX, a European FP7 funded project to develop technologies and flexible manufacturing methods for the fabrication of inexpensive biodiagnostic sensors on fibre-based materials. This involved the analysis of single and multiphase porous and microfluidic flow as well as exploring the use of inkjet as a means of precise dosing of biological reagents.

In his new role, Ronan is looking forward to more teaching roles within MET and also linking both his fascination with the world of nanoscience and biosensing with the experience of the challenges of scale-up. He is looking at approaches to bringing emerging technologies to a manufacturing scale. If you have any thoughts on the area, stop him in the corridor or call by the Inkjet labs for a chat.

## Chander Velu

Chander joined in August from the Judge Business School. He will be involved as a co-investigator with Ian Hutchings and Finbarr Livesey on the recently awarded EPSRC/ESRC research grant lead by Tim Minshall, 'Bit by Bit: Capturing the Value from



the Digital Fabrication Revolution'. Chander will also continue his engagement with the Cambridge Service Alliance. He will be teaching the MET 3A courses on Financial and Management Accounting as well as Industrial Economics and Strategy. Prior to his academic career, Chander worked for Booz Allen Hamilton (now Booz & Co) and PricewaterhouseCoopers in London as a management consultant. He completed his MPhil and PhD from the University of Cambridge. He is a Fellow of The Institute of Chartered Accountants in England and Wales. Chander has an interest in innovation with a specific focus on exploring the antecedents and consequences of business model innovation. He has also been examining the relationship between innovation and entrepreneurial spawning in service industries.

He has been developing alternative means of strategic decision making in game theory with particular applications to competitive settings including business strategy and innovation.

Chander also works on issues related to management and development economics. He applies theories developed in economics and management to issues in development. Work in this theme includes the interactions of religion, economics and management and also the role of new business models for development.

## ... and other new faces

**Yvonne Richards** will be working as a Research Assistant in the Inkjet Research Centre on the BiognostiX project looking at the fabrication of biodiagnostic sensors on fibre-based substrates using inkjet printing. Yvonne completed her BSc(Hons) degree in Biochemistry at the University of Bath in May 2013. Her degree included an industrial placement year at Lonza Biologics in Slough. Contact her at [ycr20@cam.ac.uk](mailto:ycr20@cam.ac.uk)



**John Downing** has taken over from Sam Selvini, covering her six months' maternity leave. John will be responsible for all IfM and ECS press and media activity. He previously spent nine years as a reporter and three years as a sub-editor in regional daily newspapers. Before that he worked in transport planning for a number of consultancy firms. He can be contacted via email at [jpd49@cam.ac.uk](mailto:jpd49@cam.ac.uk)



**Rebecca Meagor** has joined ECS as temporary team support, covering Kat Harding's maternity leave until June 2014. Initially Rebecca will work Thursdays and Fridays until 9 September when she will work five days a week, 9.30am-2.30pm. Contact Rebecca at [rm727@cam.ac.uk](mailto:rm727@cam.ac.uk)





**Dominic Oughton**, of ECS, set himself a tough challenge to raise money for two charities – a vertical mile of climbing, solo and unroped, in the Peak District.

After waiting for a suitable weather window, he took his chance on 20 August to climb in aid of Cancer Research and Care at The Christie hospital.

Here are some extracts from the blog he kept on the day ...

**8am:** First up we're off to Hobson Moor Quarry. Not the most beautiful crag in the Peak District (ex-local authority tip and covered in graffiti) but nearest to home and therefore amongst my favourites.

Another highlight was my first donation of the day. A bloke with a dog gave me 65p (all his change). Every bit counts!

**Noon:** Castle Naze – I added a few extra routes to my planned itinerary, making 33 in all – what a great little crag!

**5.10pm:** Burbage North. The drive to Burbage was interrupted by a jack-knifed lorry (sabotage?) I had originally intended to do 60 routes at Burbage (they're only short) but 31 routes later the midges had arrived and I'd had a call from The Little John to say that the "victory reception team" was waiting. Slightly jaded, it was great to relax over a well-earned pint.

A more thorough analysis saw a grand total of 1,634m (I squeaked over the finishing line with just 25m to spare over the mile marker!) THANKS!!

Dom

- Dominic originally aimed to raise £1,600 – about £1 per metre – but has upped this to £3,200 in the spirit of the challenge.

If you haven't already had the chance to donate, there's still time to contribute at [www.justgiving.com/DominicOughton](http://www.justgiving.com/DominicOughton)

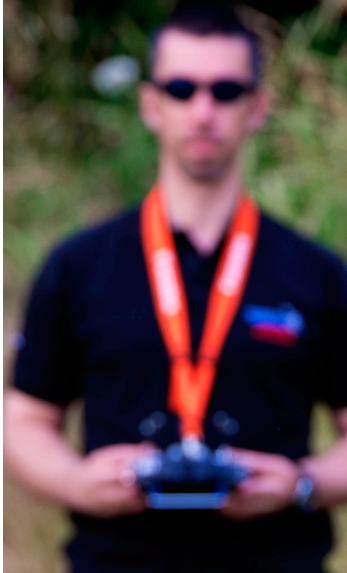
## Dominic goes the extra vertical mile to fight cancer



Well-earned: Dominic enjoys a pint after the climb



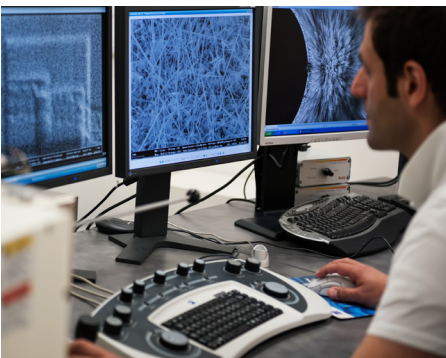
## Elevating photography to new heights



“How could I take photos and obtain images from the air?” was the question for Steven Tisseyre, an electronics engineer with a keen interest in photography. The founder of Aerial Drones designed and built an unmanned aerial vehicle (UAV) suitable for low altitude flight and demonstrated it at a PrISMS business strategy workshop for **Derek Ford, John McManus and Nicky Athanassopoulou.**

Using the latest composite materials and microprocessor design, the platform carries a high resolution digital camera. The initial HexaCopter (6-rotor) prototype has progressed to the OctoCopter. The ‘pilot’ can virtually sit inside the cockpit while monitoring real-time overlaid flight telemetry through goggles or a portable LCD screen. A mobile ground station enables autonomous flight plans to be mapped. *Aerial-Drones.com*

## IfM people



in innovation-oriented SMEs’. See [www.researchprofessional.com/0/rr/news/uk/innovation/2013/7/Small-businesses-ill-served-by-big-R-and-D.html](http://www.researchprofessional.com/0/rr/news/uk/innovation/2013/7/Small-businesses-ill-served-by-big-R-and-D.html)

### Top Tata team takes a grand tour of the IfM

A high-level delegation of senior executives from across the Tata group visited the IfM as part of a two-day visit to the university. The group was welcomed to the university by Lynn Gladden, Pro-Vice-Chancellor for Research, and to the IfM by **Mike Gregory**. They heard talks by **Ajith Parlikad**, of DIAL, and **Graham Martin**, of the Inkjet Research Centre, and had a tour of the Photonics Labs.

### First time for Frank at Florida AoM conference

**Frank Tietze**, visiting researcher at the CTM, presented a paper at the 2013 Academy of Management (AoM) conference in August in Orlando, Florida.

In a paper at a Technology and Innovation Management (TIM) session on innovation and the

environment, Frank spoke on how product service systems (PSS) impact the way firms innovate. He said: “My first time at the AoM was quite a success. I received valuable feedback on my paper.”

Also at the event was **Claire Weiller**, PhD researcher at the Cambridge Service Alliance. She presented her work on entry in the telecommunications industry and CEO backgrounds in a session on innovation timing. She said: “AoM gave me the opportunity to meet the great names in my field of research.”

Frank questioned whether the overall theme, “capitalism in question”, fitted well with the conference venue: it took place in major resorts in Walt Disney World (pictured by Frank).



## Presidential salute

**Sina Habibi**, pictured, a Doctoral Student in Industrial Photonics, will be president of the Cambridge University Entrepreneurs (CUE) until June 2014. CUE was founded in 1999 by three people and it runs a very successful student-run business creation competition.

## PhD student poster wins the best in show award

**Joonmo Ahn**, a CTM PhD student, won the Best Poster Award at The R&D Management Conference 2013, held in Manchester Business School on 26-28 June. The title of his paper was “The influences of CEO characteristics on open innovation

## Benvenuto Celeste!

Congratulations to Sam Selvini on the birth of her daughter Celeste on 13 August.



## Journal to print special paper by the inkjet set

An invited paper on “Jetting of Complex Fluids” from the Inkjet Research Centre and others has been accepted by the Journal of

Imaging Science and Technology for a special edition focussed on digital fabrication. The IfM authors are **Steve Hoath, Rafa Castrejón-Pita, Wen-Kai Hsiao, Sungjune Jung, Graham Martin and Ian Hutchings.**

## Following in the footsteps of Newton

The IfM Inkjet Research Centre’s **Rafa Castrejón-Pita** is the latest recipient of a Newton Trust Teaching Fellowship, to be taken up for Engineering at Wolfson College.



## New programme

ECS has been developing its multi-module programme concept and has won a contract to deliver a programme for Atos.

This programme has recently been designed and, following the ‘thumbs up’ from Atos, this will be piloted starting in October and concluding in March 2014. Atos is a major IT services company which has grown substantially in the last three years following its takeover of Siemens IT Solutions.

The programme is for senior Atos technical experts to broaden their technical expertise and increase their technology management and business skills. At the request of Atos, ECS has entered into a collaboration with the University of Paderborn to deliver the computer science aspects of the programme as Atos has a long standing collaboration in this area.

ECS has been running a multi-module programme for Caterpillar in the last couple of years and will be running this for the fifth time this autumn. For more details contact Judith Shawcross [jks45@cam.ac.uk](mailto:jks45@cam.ac.uk)

## Notice board



## New sports centre is now fit for purpose

The University Sports Centre was opened on 19 August. It has a spacious fitness suite offering various classes and a vast sports hall hire for five-a-side football, badminton, netball and other court games. Opening hours are 6.30am-10pm weekdays and 8am-8pm at weekends. For further information see [www.sport.cam.ac.uk/](http://www.sport.cam.ac.uk/)

Fitness classes start on 2 September

– see details of the times and charges at [bit.ly/172AhZE](http://bit.ly/172AhZE). More classes will be added from October.

## They think it’s all starting ... it is now

Twenty of IfM’s finest have signed up to play football at the sports centre. To see them in action (or, perhaps, to see some inaction if they are off the pace of the game), the first match is on Monday 2 September at 5-6pm. If you want to play, contact Nick Mann [nm402@cam.ac.uk](mailto:nm402@cam.ac.uk)



## Events and talks

### ● The Annual Cambridge International Manufacturing Symposium

19 and 20 September

### ● CADMC 2013 – 2nd Cambridge Academic Design Management Conference

4 and 5 September

### ● Integrating Industrial Sustainability

10 and 11 September

### ● Capturing value from Big Data through Data-Driven Business Models – Patterns from the Start-Up world

3 September, 5-6pm, Seminar Room 1, IfM

Philipp Hartmann, who is visiting from the Karlsruhe Institute of Technology, Germany, will talk on capturing value from big data through data-driven business models.

All researchers interested in big data are invited to attend. The event is part of the Cambridge Service Alliance seminar series.



## Recent publications

Ahn, J M, Mortara, L & Minshall, T (2013): *The effects of open innovation on firm performance: a capacity approach*. Science, Technology and Innovation Policy Review, Vol 4, pp 74-93. Emerging Science and Technology-Based Industries in the UK. New Firms in the New Millennium, Vol X.

Bocken, N, Short, S, Rana, P, & Evans, S (2013): *A value mapping tool for sustainable business modelling*. Corporate Governance, Vol 13, Issue 5.

Dheedan A (2013): *Distributed Online Safety Monitor Based on Multi-Agent System and AADL Safety Assessment Model*. In: Qurban A M, ed. Distributed Network Intelligence, Security and Applications. Chapter 13, pp 317-346.

Tietze, F, Schiederig, T and Herstatt, C (2013): *Firms' transition to green product service system innovators: cases from the mobility sector*. International Journal of Technology Management, Vol 63, No1/2, pp 51-69.

Tietze, F, and Hansen, E G (2013): *To Own or to Use – How Product Service Systems Impact Firms' Innovation Behaviour*. The European Financial Review, August/September.

### Conference papers:

Ahn, J M, Mortara, L & Minshall, T: *The influences of CEO characteristics on open innovation in innovation-oriented SMEs*. The R&D Management Conference 2013, Manchester.

Tietze, F, and Hansen, E G: *To Own or to Use – How Product Service Systems Facilitate Eco-Innovation Behaviour*. Academy of Management Meeting, Orlando, USA, August.

Yip, M H, Phaal, R and Probert, D R: *Stakeholder engagement in early stage product-service system development for healthcare informatics*. Proceedings of the Portland International Conference on Management of Engineering and Technology (PICMET), San Jose, USA, July/August.

## IfM in the news

Here is a selection of our latest media coverage:

### Manufacturing fund is paying off locally

PrISMS programme has helped 47 companies in the East of England in the past year.

Cambridge News

[Print](#)

### Financial support for businesses

IfM ECS will provide Welsh companies with business support and advice.

South Wales Argus

[Print](#)

### Calling all business innovators

Innovators invited to pitch their ideas at Open Innovation Forum.

Bedford Today

[Print and online at http://www.bedfordtoday.co.uk/news/local/calling-all-business-innovators-1-5335092](http://www.bedfordtoday.co.uk/news/local/calling-all-business-innovators-1-5335092)

### Manufacturers reap rewards of growth programme

Insider News Central & East

PrISMS programme has helped 47 companies in the East of England in the past year.

<http://www.insidermedia.com/insider/central-and-east/95717-manufacturing-businesses-reap-rewards-growth-programme/index.html>

Home » Central & East

### Manufacturers reap rewards of growth programme

Last updated: 5th Aug 2013 at 08:38am

Keyword tags: dB Broadcast, European Regional Development Fund, manufacturing businesses, Molecular Dimensions, University of Cambridge Institute

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A total of 47 manufacturing businesses in the East of England have been supported by the European Regional Development Fund-backed Prisms programme since its launch last year, according to new research.

Tony Savill, founder of Newmarket-based Molecular Dimensions, one of the companies supported by the Prisms programme, said: "During the past year, we have assessed the competences and priorities for the business.

"This has led to business development, the adoption of a formal project management system, increased production efficiency and a marketing plan. And we are now completing a plan for product development."

Molecular Dimensions has 12 members of staff and develops and commercialises protein crystallography product ideas from research institutes.

Cambridgeshire-based dB Broadcast, with 50 employees, which designs, manufactures and installs broadcasting industry systems, has also used the programme.

David Bird, managing director, said: "An important benefit was being able to use recognised business tools which increased overall efficiency.

"I was very surprised by the speed of the process. Having an independent person chairing the sessions was definitely an advantage; both the assessment and agreed improvement work felt more objective compared with doing it ourselves."

The three-year Prisms programme, managed by IfM Education and Consultancy Services, which is based at the University of Cambridge Institute for Manufacturing research, aims to help small businesses and start-ups to grow.

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