

EPSRC Early Career Forum in Manufacturing Research



Newsletter Summer 2017

Foreword

Sheffield, Bath, Glasgow... the ECF meetings never happen at the same place, and provide us with the opportunity to explore numerous world-class manufacturing research facilities such as the EPSRC Centre for Innovative Manufacturing in Continuous Manufacturing and Crystallisation (CMAC) in Glasgow this April. These visits are for us eye-openers on the best practice across the country, opening possibilities for new collaborations and catalysts for new research ideas! In this newsletter I am also presenting the result of the first Alumni survey carried out at the end of 2016. I would like to thank again the surveys responders and all the contributors to this newsletter.

Maiwenn Kersaudy-Kerhoas

Glasgow

I chaired the 15th ECF meeting hosted by Iain Oswald at Strathclyde University. In this meeting members focused on collaborative research ideas; initially defining general topics of common interest, then breaking out into groups for interested parties to discuss each topic. The main themes were: resource recovery and circular economy; nanoparticles and interfaces; robotics, high value manufacturing and 3D printing; continuous manufacturing. In keeping with the last topic, Iain gave us a tour of the impressive facilities and infrastructure at the EPSRC Centre for Innovative Manufacturing in Continuous Manufacturing and Crystallisation (CMAC). Expert talks were given by Craig Johnston and Joopter Horst (Strathclyde) to advise on applications for Innovate UK and European funding, respectively.

Colin Hare



Bath

The 14th ECF meeting was hosted at University of Bath by Vimal Dhokia and chaired by Laura Justham (Loughborough University). The theme of this meeting was 'Engagement with commercial partners' and consisted of industrially oriented talks from Dr Zoe Webster (Head of High Value Manufacture, Innovate UK), Mr Ian Brooks (Principle Engineering, Moog), Mr Mike Adams (CEO, HiETA), and Mr Marc Saunders (Director, Global Solutions Centre, Renishaw). The talks facilitated discussions on how as early career researchers we can engage with industry to create long lasting collaborations that will not only benefit our academic pursuits, but will also benefit industry. In particular, the need and importance of IP management and protection was discussed. The final part of the 14th meeting involved a brief tour of the Department of Mechanical Engineering laboratories.

Vimal Dhokia

Sheffield

On the 20th and 21st of September 2016, the 13th EPSRC ECF in Manufacturing Research met at the University of Sheffield. The meeting was hosted by Chris Holland (Sheffield) and chaired by Paul Roach (Loughborough). The first day of the meeting was run concurrently with the Sheffield Manufacturing Day, with a small poster session and industrial talks, including Steve Franklin, from Phillips Research and a Royal Academy of Engineering Visiting Professor. Colin Sirrett, CEO at the Advanced Manufacturing Research Centre gave a vibrant talk on manufacturing and education. On the second day we had informal discussions relating to the meeting theme 'IMPACT' with Sarah Geere, Impact Consultant and Mike Arnott, Sheffield, Director of IP Development & Commercialisation at the University of Sheffield. The session was very well received and deemed useful by all members.

Alumni survey: quantifying the forum benefits

I have sent out a survey to the alumni of the EPSRC ECF in an attempt to quantify the benefits of the ECF attendance. The response rate of 65% allows a good overview of the outcomes of the ECF attendance for the first generation of participants. The membership has been very beneficial to the majority of the respondents. The survey reflected on the level of activity undertaken by the members. 75% have visited other ECF members during their term, with 30% reporting 5 visits or more. The majority has carried out pilot work with fellow members. This led to 10 out of 13 respondents reporting that they had submitted 1 or more proposal with a fellow member, with 2 researchers reporting they had submitted 3 or 4 proposals. The success rate was high with 8 reporting at least 1 or 2 of their proposals had been successful. It should be noted that most of these proposals were written for the special EPSRC call, ring-fenced for the ECF members. In terms of journal publications, one third of ECF members have submitted at least 5 journal articles in collaboration with another ECF member. All alumni members would recommend participation in the forum. Some of the most highly rated membership benefits included 'developed confidence' and 'increased breadth of research'. All but one respondent agreed that membership in the forum can accelerate career progression. One participant commented: "The ECF in Manufacturing research is an excellent initiative from EPSRC. I believe it has accelerated and enhanced my career development and provided me with a long term network of research collaborators". At the last meeting in Glasgow, we discussed the importance of tracking the evolution of the responses to this survey across the different generations of participants.

Maiwenn Kersaudy-Kerhoas



Highlights



Congratulations to Cinzia Kingari who has been made Professor of Nanoscience at the University of Manchester in August 2016. Cinzia is the second ECF members to access full Professorship while in position at the EPSRC Early Career in Manufacturing Research. Cinzia Casiraghi is also part of Manchester being awarded a £5M EPSRC Programme Grant (2D Materials for Next Generation Healthcare Technologies (2D-Health)) and Cinzia has won one of the Leverhulme Trust awards in Engineering. Each Prize Winner receives £100,000 which can be used over two or three years to advance their research.

- Congratulations to Louise Horsfall who secured a £1.3K EPSRC early career fellowship in Engineering for Sustainability and Resilience. She'll be spending the next 5 years using the tools and techniques provided by advances in synthetic biology to engineer a microbe with the ability to reclaim critical metal ions from waste streams and transform them into high value nanoparticles.
- Paul Roach has moved to Loughborough University in December 2016 to a senior lecturer position, setting up a brand new lab and group.
- Louise Horsefall and Maiwenn Kersaudy-Kerhoas have been elected to the Royal Society of Edinburgh, Young Academy of Scotland, in August 2016.

On your agenda:

Belfast in September. The next meeting will be hosted by Dr Yan Jin at Queen's University Belfast and chaired by Dr Byung Chul Kim (University of Bristol). The topic will be on raising academic profile and career progression. Invited senior academics will share their personal experience and provide guidance to early career researchers.

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Further Information

<https://www.epsrc.ac.uk/research/ourportfolio/themes/manufacturingthefuture/activities/earlycareer/>

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