



Welcome from the Sector Head



Dear Colleague,

It gives me great pleasure to introduce the latest news from the IET's Design and Production Sector.

As we look to promote key topics such as food security, sustainable manufacturing and design in 2014, I would like to take this opportunity to thank all those who have given so freely of their time, this year, to enable the Sector to engage, publish and promote engineering excellence in the design and production industries.

Many of you also played an important part in helping the Sector to strengthen its strategic alliances with industry bodies and kindred professional membership organisations and to contribute to an ambitious roster of events, exhibitions and conferences. On behalf of your Committee, I would like to thank you all. Here's to a hectic but nonetheless successful New Year!

Best wishes

Morgan David, Sector Chairman, IET Design & Production

Sector News



Manufacturers largely unaware of funding support

BIS has set up a Forum to address the problem of poor visibility of government funding schemes. This follows a survey by GAMBICA which revealed low levels of awareness among manufacturing businesses of the funding, support and access to research and development available to them. The IET lent its support to the research alongside the EEF and IMechE.

[Read the survey's key findings!](#)



Perkins prompts £49m to address skills challenge

The Government has responded to Professor John Perkins' recommendations to close the engineering skills gap by announcing it will provide £30m to employers to address engineering skills shortages in sectors with specific needs. In addition, it will invest £18m in a new 'elite apprentices' training facility at the Manufacturing Technology Centre in Coventry.

[Find out more!](#)

Pioneer transplant device scoops Innovation Awards

IET.tv



Growing Autonomous Mission - Management Applications

Highlight from the 2013 Annual Northern Aerospace forum which reviews initiatives developed between government and industry officials.

[View Webcasts](#)



Military Research and Development: Is it Helping or Hindering Our Security

Dr. Stuart Parkinson provides a critical analysis of security-related science and technology developments in hope of creating a secure future.

[View Webcasts](#)

Upcoming Events

7 Jan 2014

**Fifty Years of Development in
Control Engineering**



Team Consulting Ltd and OrganOX Ltd picked up IET Innovation Awards in the categories of 'Healthcare Technologies', 'Emerging Technology Design' and 'Intelligent Systems' for their innovative transplant procedure product, 'Metra'. This pioneering device, which can keep a human liver alive outside the body for up to 24 hours, should increase the number and quality of available livers.

[Learn more!](#)



UK Engineering on the up at Design Show

The Engineering Design Show, 22-23 October 2014, is fast-becoming one of the best and biggest in its field. This year's show was no exception as our intrepid reporter, Alan Howard, found out during his trip to the Ricoh Arena. From aerospace to automotive, 3D printing to prosthetics, the conference and exhibition offer something for everyone, showcasing the very latest technologies and innovations.

[Find out more!](#)

Sector Highlights



Get the definitive presentation and text on 3D Printing

Richard Hague, Professor of Additive Manufacturing at Nottingham University and Director of EPSRC's Centre for Innovative Manufacturing, was recently in London addressing an audience of young professionals on a topic close to his heart. Looking beyond media misconceptions, he outlined current 3D print capabilities and gave an enticing view of the shape of things to come in the future. Catch Richard in action and download the IET D&P Sector Insight penned by some of his colleagues at Nottingham.

[Presentation video](#)

[3D Printing Insight](#)



Empowering a Personal Manufacturing Revolution

UK manufacturing is rarely out of the news at the moment and despite the many concerns around its ability to compete and grow on the global stage, one thing that is never questioned is the UK's strength, as a nation, to innovate. IET.TV recently visited Manchester to explore how Fab Lab is making dreams come true by enabling innovators to turn ideas quickly into reality.

[Watch now!](#)

[Robots Like Us](#)

Crawley

FREE event and talk by Sussex University's Prof. Derek Atherton.

[Learn More](#)

21 Jan 2014

The Return of the Vulcan

Brighton

FREE event celebrating the life, times and restoration of one of Britain's most iconic aircraft.

[Learn more](#)

5-6 Feb 2014

Cyber Security for Industrial Control Systems

London

Delivered through presentations, debates, case studies and live demonstrations, this is your opportunity to hear the latest on Cyber Security for Industrial Control Systems.

[Learn more](#)

6 Feb 2014

A Systems Approach to designing Complex Systems

Loughborough

FREE event about systems engineering aimed at students and young professionals. Open to all.

[Learn more](#)

7-11 Apr
2014

Mach 2014

NEC, Birmingham

The UK's largest event for Manufacturing Technologies, attracting more than 20,000 visitors and 500 exhibitors. All the latest technologies and innovations.

[Learn More](#)



Despite the rise of faster computers and advances in artificial intelligence, why do today's robots still seem somewhat primitive? Is the task of replicating the human brain proving to be a step too far? In this fascinating talk for the Science Museum's 'Lates' series, Murray Shanahan, Imperial College's Professor of Cognitive Robotics considers brain-inspired artificial intelligence.

[Computer says YES!](#)



Increase your profits, become more sustainable

Remanufacturing accounts for just 1% of UK manufacturing sector turnover. It's the process of returning an end-of-life, broken or blemished product to 'same-as-new' condition in a manufacturing environment and it allows manufacturers to increase profits while reducing supply risks of raw materials. Join Dr Greg Lavery in this 45-minute offline webinar 'Remanufacturing - A low risk source of additional profits'. Learn about the pros and cons of remanufacturing and hear insights from Caterpillar Reman on their 'remanufacturing' experience.

[Join the webinar now](#)

Publications and Resources



FREE credits for IET members to access digital content!

Calling all IET Members! In early January, we're giving you 5 FREE credits to use on individual content downloads from the IET's Digital Library! You'll be able to choose from our extensive collection of over 190,000 articles, papers and book chapters available to download on-demand.

Watch out for further details early in the New Year!



Free papers available from The Journal of Engineering

The Journal of Engineering, the IET's online-only, open access research source, is attracting a broad spectrum of papers. A recent addition on 'contactless payment cards' generated national media coverage and over 1,000 downloads. If you've got an engineering topic you'd like to find out about or a paper you'd like to add to the Journal, take a look online.

[Find out more!](#)

Award-winning paper FREE to access

The winning entry for the 2013 IET Nanobiotechnology Premium Award was 'Polysaccharides and phytochemicals: a natural reservoir for the green synthesis of gold and silver nanoparticles' by Y. Park, Y. N. Hong, A. Weyers, Y. S. Kim, and R. J. Linhardt.

[Read it now in the IET Digital Library.](#)

Premium

Sector Review



We need volunteers!

Working in manufacturing? Dr Ronaldo Ronaldo, the IET's newly-elected Chair of the Manufacturing Technical Professional Network, is looking to recruit a number of professional engineers from the UK and the rest of the world who work in the manufacturing industries to join the Network's Executive Committee. "Overseas volunteers currently participate by dialling in," says Dr Ronaldo. "We are also exploring other two-way communications media."

[Email your case study idea today!](#)

Do you or someone you know suffer from arthritis?

The Design & Production Sector and Arthritis Research UK are looking to form a consortium to develop engineering and design solutions to meet the daily challenges faced by those living with arthritis. We're keen to receive your ideas and suggestions on daily tasks, no matter how small or simple, you'd like some help with. We'll be interested to see what you suggest and keen to engineer some possible solutions.

[Send your suggestion to Gordon Attenborough](#)

What makes an Admired Engineer?

The IET Information & Communications Sector is keen to lend its support to an important piece of research on 'The

Jobs in your sector



[Engineering & Technology Jobs](#)

Search for your next job in the Design & Production Sector and upload your CV today!

[Switch Mode Power Supply Design Engineer](#), Surrey



Characteristics of an Admired Engineer' from leadership development specialists, Perspectiv. Please help us by sparing a few moments to complete the simple survey which seeks to identify the similarities and differences between the attributes of leaders in general, professional engineering leaders, and engineers.

[Take the survey now!](#)

[Senior Telecoms Design Engineer](#), York

[OLE Design Engineer](#), Derby

[Senior Embedded Software Engineer](#), Essex

[Head of Electrification - Basic Design](#), Derby

International



Expert speakers sought for Beijing healthcare conference

The IET is staging an inaugural "HealthTech" conference in Beijing on 24 September 2014, in collaboration with the University of Oxford, Tsinghua University, and Peking University Health Science Center. This will be a discussion forum for key speakers from UK and Chinese Governments, industry and academia. If you would like to recommend an expert speaker, please get in touch.

[Contact the IET Beijing Office](#)



Do you travel to India or China?

The expertise and enthusiasm of our members is our greatest strength. If you can deliver a lecture, attend a conference or support our Asian members to host a local event, you could be helping to introduce even more people to the fascinating world of engineering and technology. If this is of interest to you please get in touch by email.

[Interested? Please email us!](#)



Engineering in China with the IET

IET China has been developing a number of partnerships with businesses and universities across the country. Within the D&P Sector alone, it is working with Ningbo Nottingham University and China Jiliang University among others. If you are an IET member, an engineer or academic looking to establish contacts, ask questions or progress projects in China the IET can help.

[Email IET Beijing](#)

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Your Feedback



Your feedback welcome!

We hope you enjoy reading our e-newsletter. We're keen to celebrate and champion the work of engineers and technicians working in the Design & Production sectors. We'd like to invite your suggestions as to subject areas or hot topics you'd like to see covered by the Sector. Perhaps there's a burning issue you feel passionately about or a project you feel your peers would benefit hugely from knowing more about? Alternatively, you might just want to get in touch to register your interest in getting involved in the Sector or to offer your comments on this first edition of our e-newsletter. I look forward to hearing from you. Do get in

touch!

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