

Communicating STEM Conference 2011

FIFTH ANNUAL COMMUNICATING SCIENCE, TECHNOLOGY,
ENGINEERING, MATHS (STEM) CONFERENCE.



Success Through Synergy

"Coming together is a beginning. Keeping together is progress.

Working together is success."

– Henry Ford



VENUE: RIVER LEE HOTEL, WESTERN ROAD, CORK.

DATE: THURSDAY, JUNE 23, 2011

TIME: 9:45AM - 5:15PM

Institutional Biographies 2011

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Discover Science & Engineering

Discover Science & Engineering (DSE) is the national integrated awareness programme that aims to increase interest in science, technology, engineering and maths among students, teachers and members of the public. DSE is managed by Forfás on behalf of the Office of Science and Technology at the Department of Enterprise, Trade and Employment.

DSE's mission is to contribute to Ireland's continued growth and development as a society that has an active and informed interest and involvement in science, engineering and technology.

Its overall objectives are to increase the numbers of students studying the physical sciences, promote a positive attitude to careers in science, engineering maths and technology, and to foster a greater understanding of science and its value to Irish society.

STEPS

Engineers Ireland is one of the largest and oldest representative bodies on the island of Ireland, with a membership of engineers which now totals over 24,000. The membership incorporates all disciplines of the engineering profession in Ireland across industry, the public service, semi-state organisations and academic institutions.

STEPS was established in 2000 to encourage primary and post-primary students to explore the world of science and engineering and to consider engineering as a possible career choice. This programme is managed by Engineers Ireland and is supported by the Department of Education & Science, Forfás, FÁS and a number of major engineering employers. The value of the programme has been formally recognised by Government and is a key element of the National Discover Science & Engineering programme.



Communicating STEM Conference

The goal of the conference is to provide delegates with the tools required to create and develop partnerships that promote science, engineering, technology and maths (STEM). Case studies of successful partnerships between education, science outreach organisations and industry on a European, national and local level will be shared and discussed. Practical ways for industry to integrate these activities into a corporate social responsibility programme will also be presented. At a time of limited resources, the conference will focus on leveraging existing networks as a means to develop quality initiatives that engage a greater number of students, educators and families with STEM outreach activities.

Speaker Biographies 2011

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André van Aperen studied Analytical Chemistry, Environmental Technology and Industrial Hygiene. He has been working for Shell since 1974 in R&D Exploration and Production (production technology and petrophysics). He later worked as an environmental and industrial hygiene advisor. His currently works as Coordinator of Jet-Net for Shell in the Netherlands, where he heads up a team of 8 other coordinators from several company locations. He is responsible for the structured collaboration with the 29 Shell Jet-Net schools and the continuation of the "Jet-Net at school" programme at the schools. He is member of the Jet-Net core team of the Dutch Jet-Net organisation.



Katherine Mathieson is the Director of Education for the British Science Association where she is responsible for their flagship programmes for young people, including the prestigious CREST Awards and the National Science & Engineering Competition. Katherine has previously held roles at a range of science-based organisations, including NESTA, the Forensic Science Service, Science Line and a major pharmaceutical company.

GALWAY EDUCATION CENTRE
Ionad Oideachais na Gaillimhe



Bernard Kirk is Director of the Galway Education Centre, the Department of Education and Skills funded provider of Continuing Professional Development (CPD) for teachers. Galway Education Centre is responsible for the CPD of 5,000 primary and post primary teachers in 295 schools in the Galway region. For the past year he is also Acting National Coordinator of T4- Technology Subjects Support Service which has introduced Design and Communication Graphics and Technology to 1,300 Leaving Certificate teachers nationally. He was founding secretary of The Galway Science and Technology Festival and co-founder for Robotics Ireland. The Centre introduced the CREST Awards to Ireland in 2011 in cooperation with the British Science Association.



Michelle Starr is Liaison Officer with the National Centre for Excellence in Mathematics and Science Teaching and Learning (NCE-MSTL) since its establishment in 2008. Forming links and collaborations is a major part of the work of the NCE-MSTL and Michelle has formed collaborations, synergies and partnerships with a broad range of bodies and individuals including DSE, MACSI, Engineers Ireland, MDP, KES, IBEC bodies, Industries and teachers on projects which involve both action research in mathematics and science teaching and learning and the promotion of mathematical and scientific awareness.



Lionel Alexander was appointed Vice President/Managing Director of the Imaging and Printing Group Ireland (IPG) reporting directly to the US as part of the \$26 billion IPG Division. He is also VP/MD of Ink Supplies Global Printhead Operations. In this role he has accountability for 2,700 employees across HP in Americas, Asia and Europe. Lionel joined HP in 1982 as a Production Engineer. He has managed various global functions in HP's geographic locations. Lionel has also had Operations/Business experience across segments which include: Manufacturing, Procurement, Engineering Development, R&D and Marketing.



David Fahy is the Project Director for ESOE 2012. David has experience of bringing high quality events to Ireland with a background in conference and event design, management and sales to a variety of Public and Private Sector clients. David also has over 25 years experience in general and technology management, within the Technology and Services sectors in Ireland. David obtained a B.Tech, from the University of Limerick, a Diploma in Systems Analysis from U.C.G. and is a graduate of the International Advanced Management Programme in INSEAD.



Dr. Finn Macleod is a Cork based entrepreneur who set-up Beautiful Data in 2010. The company designs and builds state of the art information display. These interactive designs enable new insight into complex information and address the problem that many organisations face of 'too much data and not enough time to comprehend it fully'. Beautiful Data is currently working on innovative representation of algorithms. This talk will review these areas, surprise you with new interactive forms of data representation and offer an opportunity into how they can be applied in mathematics.



The Cork Outreach Community have been collaborating since 2003 by pooling resources to amplify the impact of their activities. The presentation will showcase some of these cooperative initiatives, including the annual Discovery Festival, highlighting benefits, challenges, industry involvement and opportunities for replication. Partners: Cork City Learning Forum, UCC, CIT, Cork Electronics Industry Association, Pharmachem Ireland, Lifetime Lab, Tyndall National Institute, APC, Junior Achievement, Blackrock Castle Observatory, Irish Primary Principals Network, Irish Science Teachers Assoc., Cork Chamber and Cork City Council. Supported by DSE, STEPS & Cork City Council



Katharine Jensen develops and leads the corporate social responsibility (CSR) strategy for Abbott across 14 locations in Ireland, comprising nearly 4,000 employees. Previously, Katharine was in the corporate responsibility practice of APCO Worldwide, where she advised Fortune 100 clients on strategic communications, philanthropy, employee engagement and CSR reporting. Katharine holds an MBA from University College Dublin Smurfit Business School and a BA from Boston College.

Programme of Events

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DATE: THURSDAY, JUNE 23, 2011

TIME: 9:45AM - 5:15PM

9:45am	Registration & tea/coffee
10:30am – 10:45am	Opening and welcome <i>Caitríona Geraghty – STEPS, Engineers Ireland</i>
10:35am – 11:10am	Creating and developing successful STEM partnerships <i>Katherine Mathieson – Director of Education, British Science Association</i>
11:10am – 11:50am	Driving innovation: Keeping Ireland competitive <i>Lionel Alexander – Vice President and Managing Director, Hewlett Packard (Manufacturing) Ltd</i>
12:00pm – 12:40pm	STEM is big business <i>André Van Aperen – Jet-Net Coordinator at Shell, The Netherlands</i>
12:40pm – 1:10pm	CSR and STEM: The perfect partnership <i>Katharine M. Jensen – CSR Manager, Abbott Ireland</i>
1:10pm – 2:15pm	Lunch
2:15pm – 2:30pm	New visions of mathematics education <i>Dr. Finn Macleod – Beautiful Data</i>
2:30pm – 3:00pm	Partnering with Pedagogy: Working together to support the curriculum <i>Michelle Starr – Liaison Officer, NSE-MSTL</i>
3:00pm – 3:30pm	Pedagogy and Industry – The operational level <i>Bernard Kirk – Director, Galway Education Centre</i>
3:30pm – 4:00pm	Coffee break
4:00pm – 4:30pm	STEM Partnerships – A Local Focus <i>Aoife O'Donoghue and Marcela Whelan, Cork Outreach Community</i>
4:30pm – 5:10pm	Opportunities to put collaboration into practice <i>Dave Fahy – Director, Dublin City of Science 2012</i>
5:10pm – 5:15pm	Event close <i>Peter Brabazon – Programme Director, Discover Science and Engineering</i>
5:30pm	Lifetime Lab bus <i>Bus to Blackrock Castle Observatory</i>
6:30pm	The Partnership Space <i>To wind down after the conference day, delegates are invited to a networking event in Blackrock Castle Observatory. Guided tours of the exhibition, Cosmos at the Castle, will also be available for delegates to attend. To bring the evening to a close, CIT Blackrock Castle Observatory will send the Henry Ford quote "coming together is a beginning, keeping together is progress, working together is success" as a bitmap encoded message to a distant world via the radio telescope at the Cork science centre. The message will travel at the speed of light (300,000 kilometres per second) to the chosen destination from a library of exoplanets.</i>
8:00pm	Bus will depart for train station (last train to Dublin at 20.30) and drop delegates back to the hotel.

This information session is open to all registered delegates who wish to attend.