

24TH Annual **Cork Mechanical, Manufacturing & Biomedical Engineering** Exhibition

SUSTAINABILITY IN ENGINEERING - EDUCATION AND RESEARCH

Ireland's largest Educational Engineering and Innovation Event with over 170 stands took place on the 29th April 2010 in the Nexus Courtyard, Student Centre, Cork Institute of Technology.



Michelle Tobin demonstrates her Biomedical Engineering Project on Inhaler and Space Holder Design and Development



Institiúid Teicneolaíochta Chorcaí
Cork Institute of Technology



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Minister Eamon Ryan TD, Minister for Communications, Energy and Natural Resources addressed the large exhibition audience.

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The 2010 Exhibition Theme was "Sustainability in Engineering - Education and Research". The Sustainability theme was particularly appropriate in view of the inaugural display of the new CIT Bachelor of Engineering (Honours) in Sustainable Energy Final Year Capstone Projects.

Centrepiece Exhibits 2010 also included the Energy Engineering Group, the Wind Energy Group, Green Campus CIT, the Clean Technology Centre CIT, Engineers Ireland, the Medical Engineering Design and Innovation Centre (MEDIC), The Rubicon Centre, the Centre for Advanced Manufacturing and Management Systems (CAMMS) and a major display of International/National Student Awards in Engineering Innovation, Design & Entrepreneurship.

Minister Eamon Ryan TD, Minister for Communications, Energy and Natural Resources and Mr Martin Lowery, President Elect, Engineers Ireland, both attended and addressed the large exhibition audience in a highly entertaining presentation ceremony for graduates of outstanding achievement.

Admission to the exhibition was free with funding provided by 20 Industrial Sponsors.



William Murray's Project on Finite Element analysis and testing of Tibia carried out in conjunction with MEDIC attracted a great deal of interest throughout the exhibition.

Exhibition Theme: Sustainability in Engineering - Education and Research



President Elect Martin Lowery presented the Year 2010 Richard Hale Memorial Award to Vera Cahill, Outstanding Biomedical Engineering Graduate.



Charles Dwyer, recipient of the Tim Sexton Memorial Award, and his father Tom Dwyer with Minister Eamon Ryan. Charles is the Co-founder of Lowflo.

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David Irwin; Ciaran Connolly; and John Caplice; with a scale model of their Sheet Lifting Station.



Bord Gais Computer Estimation Programme for Pipe Lengths by Fiona Hedderman, final year Mechanical Engineering.



Hands On Dental Drilling Research demonstration by Jonathan Bible, final year Mechanical Engineering.



Collapsible Scooter design and development by David Chandler, Shane McDermott and Martin Evans.

Exhibition Theme: Sustainability in Engineering - Education and Research



Centre for Advanced Manufacturing and Management Systems (CAMMS) attracted significant public interest.



An excellent display of the Clean Technology Centre by Tadhg Coakley, Projects Manager, CTC.



David Cronin demonstrates his Capstone Biomedical Engineering Project on the Assessment of the Injectability Bone Bonding Capacity of Modified Surgical Splineplex.

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ESB Networks Electric Vehicle and Charger - President Brendan Murphy, Greg Robins of Carra, John O'Donoghue, ESB, and Minister Eamon Ryan. Students Robert McGowan and Robert McMahon's project is Electrical Vehicle Development in Ireland.



3D Bovine Teat Sensing System development and testing in conjunction with Teagasc was carried out by David Kelleher.



3D Profiling - Wheel Cleat and Tool Wear Analysis by Joe Doran and Seán Garvey.



Aerodynamic Properties demonstration rig development by Alan McCarthy and Oisín Hegarty.



Alan O'Riordan, George Osborne, and Paul Skelton demonstrate the Development of a Catheter Drainage Bag Alarm in conjunction with Cork University Hospital.

Exhibition Theme: Sustainability in Engineering - Education and Research



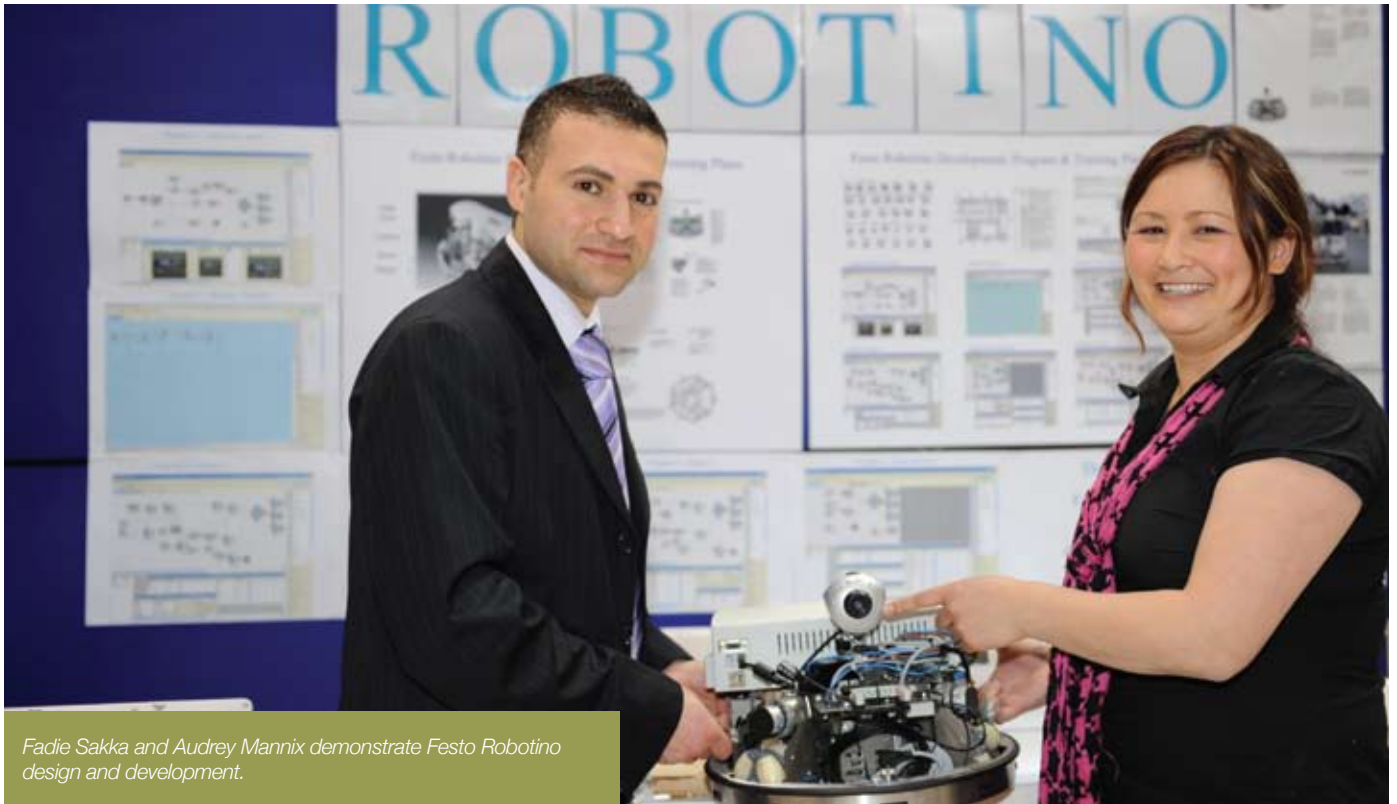
Ian Burton, Catriona Burke, Laura Beausang and Michelle Batt with their project on Optimisation of Scoliosis Brace in conjunction with St. Mary's Orthopaedic Hospital.



Domestic Chimney Heat Extraction Device Hydrostack development by Laurence Barry - CIT Prize for Innovation Winner.

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Fadie Sakka and Audrey Mannix demonstrate Festo Robotino design and development.



Galvin Murray, Niamh O'Callaghan, Ross McKeown and Tom Nason demonstrate the development of an Insert Mould for Ultrasonic Transducer Protection in conjunction with Cork University Hospital.



Gas Turbine Instrumentation and Analysis was undertaken by Jove Lachman-Curl.



Onshore and Offshore Wind Farms comparative analysis.



Design and development of HHO Generator demonstrated by Alan Walsh and Eoin O'Tuama.

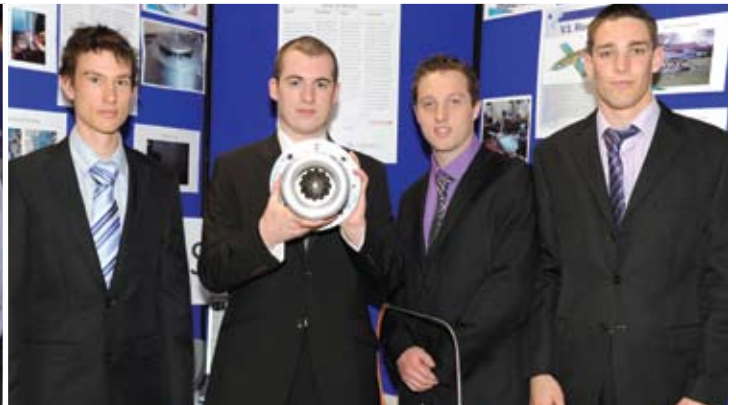
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Four Wheel Drive Wheelchair development demonstrated to Minister Ryan.



Conor Barry demonstrates his project on Contact Lens Detection in conjunction with Bausch and Lomb.



Pulse Jet Engine design and development by Tim Thurneer, Donal Ahern, Niall O'Driscoll and David Lewis.



Plate Metal Lifting Device development by John Caplice, David Irwin and Ciaran Connolly.



Patrick O'Neill with his Airflow Extraction project.

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Woodchip Briquette Manufacture undertaken by Robin Holbein, High Byrne and Andrew Cotter.



Amanda Creane and Derek O'Brien with their Rally Hydraulic Handbrake design & development project.



David Curtin with his Stress Analysis & Fatigue Behaviour of Partial Denture Clasps project.



Niamh Mannion, Gary Leahy and Ann-Marie Horan with their IV Cannula Protection project.



Paul O'Sullivan, Tristan Lacroix and John Tobin with their Cul Vision project.

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Richard Scanlon and Jimmy O'Mahony manning the De Puy Ireland stand, which proved a great success.



Mechanical Engineering Project on Wheelchair Drive design by Thomas Power, Laura Queen, Jason Richards and David Swanton.

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Charles Dwyer and Vera Cahill, recipients of outstanding achievements awards.

YEAR 2010 INDUSTRIAL EXHIBITION SPONSORS

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