

**2nd January 2008**

SEM TRAINING COURSE

ETCbrunel's popular training course in scanning electron microscopy (SEM) returns **11th – 13th February 2008**. Combining theory, demonstrations and hands-on practical sessions, this course is suitable for post-graduate students, researchers and industrialists, and is accredited for CPD by the Institute of Physics. Click here for [more details](#). If you missed this course, please get in touch for future sessions.

**27th February 2008**

NEW EFFICIENCY IN MANUFACTURE



New ETCbrunel / Diameter Ltd research shows dramatic improvements in energy efficiency and tool lifetime in manufacturing processes, by utilising diamond-like carbon. Just published in international journal *Diamond and Related Materials* available [online now](#)

**26th March 2008**



ENVIRONMENTAL IMPROVEMENTS in AEROSPACE

ETCbrunel is pleased to demonstrate development of more environmentally friendly advanced materials for aircraft components. This research in association with Hawker Pacific Aerospace and funded via Brunel's EPSRC-supported EngD programme is just published in the Institute of Materials journal *Materials World* available [online now](#)

**3rd April 2008**



NANOMATERIALS ENGINEERING

ETCbrunel is pleased to announce the start of a new research project, co-funded by Delphi Diesel Systems and EPSRC, investigating nanoscale wear issues in fuel injector systems, to reduce vehicle emissions, and improve fuel efficiency in diesel engines.

**26th May 2008**

BIOMEDICAL MATERIALS RESEARCH

Dr Benjamin Jones receives a grant from the Anson Fund to develop work on biomedical materials, studying surface structure and interactions of carbon-based thin film coatings for biomedical tools and devices.

**3rd June 2008**

#### X-RAY DIFFRACTION EXPANSION

ETCbrunel, in association with the Wolfson Centre for Materials Processing, is pleased to announce the purchase of an X-Ray Diffractometer, to examine crystal structure. Principally operated by new member of staff, Lorna Anguilano, we look forward to shortly running a full service with this valuable addition to ETCbrunel's instrument suite.

**3rd June 2008**

New Senior Technician, LORNA ANGUILANO

Lorna Anguilano joins ETCbrunel from University College London, as Senior Technician (Materials). Lorna will concentrate on the development of the XRD service and has extensive expertise in metallurgy and materials, with particular emphasis on archaeological specimens. We are delighted to welcome Lorna to ETCbrunel, adding an exciting new element to the work of the centre.



**27th June 2008**

#### RESEARCH PRESENTATION

ETCbrunel are pleased to present research work at the **Microscience 2008** RMS conference in Excel, London. Focussing on novel heat-treatment of shape-memory alloys and the subsequent material analysis, we are delighted that this work, conducted by Drs Bulpett, Jones and Reynolds and Prof Anson, in association with Diameter Ltd, is part of the flagship event of the Royal Microscopical Society.

**2nd July 2008**

Professor The Hon GERALD LALOR

Professor Gerald Lalor, the Director General of the International Centre for Environmental and Nuclear Sciences (ICENS) and member of the Jamaican National Commission on Science and Technology, visited the Experimental Techniques Centre on the 2nd July 2008 to discuss mutual research interests and development of collaborative projects with Dr Alan Reynolds the Deputy Director of the ETCbrunel. [full details](#)

**3rd July 2008**

#### DIAMOND-LIKE CARBON RESEARCH and PRESENTATION

Dr Benjamin Jones presents research work on diamond-like carbon at the **International Conference on Solid Films and Surfaces (ICSFS14)** Dublin, Ireland. Work on DLC for environmental improvements in aerospace, developed in association with Hawker Pacific Aerospace, featured as part of this prestigious event held in Trinity College Dublin. Dr Jones continued as a visiting researcher within the School of Physics, TCD investigating electronic structure of amorphous carbon and designing future collaborative studies.

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**4th July 2008**

WILLIAM LAWRENCE BRAGG Building

Stephen Bragg names Brunel University's William Lawrence Bragg building, after the X-ray crystallography pioneer and Nobel laureate. Housing the Experimental Techniques Centre and the Wolfson Centre for Materials Processing, both departments operate X-ray analysis of materials, pioneered by the building's namesake, who received the Nobel prize in 1915 for his work on determining the molecular structure of crystals using X-rays. William Bragg was professor of physics at the University of Manchester, and Director of the National Physical Laboratory, before moving to Cambridge to become Director of the Cavendish laboratory, where he founded research groups on the study of molecular structure in biology, where Francis Crick and James Watson did much of their groundbreaking work on the structure of DNA. Professor Bragg continued his work in association with the Royal Institution of Great Britain and founded the famous Christmas Lecture series. ETC is honoured to be associated with William Lawrence Bragg, and delighted that the opening ceremony was conducted by his son, Stephen Bragg, a founding influence of ETC as Brunel University's second Vice-Chancellor.

**15th August 2008**

SURFACE SCIENCE

ETCbrunel is pleased to extend its instrument suite, with the addition of a [First Ten Angstroms](#) tensiometer, allowing measurement of surface hydrophobicity, surface tension of liquids and surface energy of solids. With applications in both biomedical and forensic science research, purchase of this instrument has been supported by AWAF and the UK Home Office.

**4th September 2008**

MATERIALS RESEARCH

Dr Ben Jones presented ETCbrunel work at Electroceramics XI, international biennial conference in Manchester, UK. These works, presenting electronic properties and microstructure of tin and indium oxide materials for microelectronics, have been produced in collaboration with workers from Mexico and the Ukraine, with the support of the Royal Society.

**11th October 2008**

## MICROSTRUCTURE

Prof Gossett Oliver, of the University of Technology, Jamaica presented research at the Caribbean Academy of Sciences biennial conference (right). Prof. Oliver's paper, the result of a collaborative project with ETCbrunel, focuses on microstructure of steels and applications in tribology.



**19th December 2008**

## RESEARCH EXCELLENCE

Research Assessment Exercise 2008 results are announced. ETCbrunel is delighted to have contributed to making General Engineering at Brunel fifth in the UK in research power. Brunel's performance in the 2008 RAE confirms not only our status as a research-intensive university, but also our arrival as a university of international standing. [More details](#)