

**26th October 2009** *updated: 19th April 2010*

#### FORENSIC DEVELOPMENT

ETCbrunel work, in association with the UK Home Office, shows surface effects on development of latent fingerprints. Dr Jones utilised surface metrology techniques to investigate the interaction of iron oxide fingerprint powder and substrate features on common crime scene plastics, to help improve the success of forensic examination. The work, presented at the *ECASIA* conference, appears in a special forensic science edition of [Surface and Interface Analysis](#).

**17th September 2009**

#### MEDICAL DIAMOND

Diamond-like carbon assists with the development of new surgical tools, the *Diamond2009* conference in Athens was told this week. Dr Jones presented ETCbrunel / Diameter collaborative work on the enhancement of DLC coatings for a novel device to facilitate keyhole surgery, and its successful use in gall bladder operation. Dr Jones also highlighted the mechanisms in enhancing adhesion of the thin film coating to steel.

**2nd July 2009**

#### ETCbrunel STUDENT in NATIONAL AWARDS FINAL

Jaya Nemchand, PhD student in ETCbrunel, presents her work at the Institution of Mechanical Engineers (IMechE). Jaya's research, *Smart implants for measurement of fracture healing* reaches the last three for the Orthofix prize for best medical engineering project.



*Jaya Nemchand, far left, at the IMechE national awards final*

**24th May 2009**

#### ISAMBARD SCHOLARSHIPS

Brunel is pleased to announce the expansion of its research scholarship scheme for 2009 to fully fund up to 30 PhD studentships across the full range of academic disciplines. The prestigious Isambard Scholarships will be awarded to Home/EU students who demonstrate the potential for research excellence. More information is available [here](#)

ETCbrunel has a number of opportunities for applicants to this scheme, in topics including:

- \* Thin film engineering, enhanced diamond-like carbon.
- \* Biosciences and environment, absorption of heavy metals in biological tissue
- \* Forensic science, fingerprint detection methods.

Please contact research co-ordinator, [Dr Benjamin Jones](#) for more information or to discuss further opportunities.

### 23rd April 2009

#### WEAR of MATERIALS

ETCbrunel Director Dr Robert Bulpett and EngD student Sander Podgoric present work at the Wear of Materials conference in Las Vegas this week, showcasing ETCbrunel research on novel aerospace materials and metallurgical microstructure. Our study shows the development of multilayer processes to replace environmentally unsustainable materials, and is published in the journal [Wear](#)

### 16th February 2009

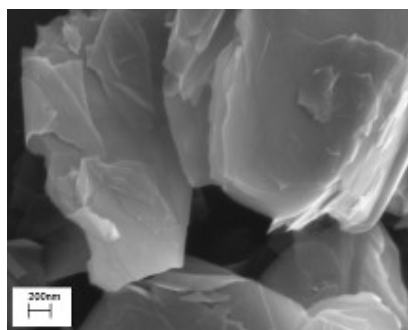
#### MULTIDISCIPLINARY IRON RESEARCH

ETCbrunel research is on show this week at the [World of Iron Conference](#) in central London. Archaeometallurgist Lorna Anguilano presents work on early iron smelting activity in Ireland, in association with Connaught and Mayo County Council. Dr Alan Reynolds presents studies of iron uptake in biological tissue, investigating plant growth on ancient mining sites.

### 20th January 2009

#### FORENSICS RESEARCH

ETCbrunel forensics research is in the news this month. American magazine *Biophotonics* features forensic microscopy and highlights Dr Jones' and Dr Reynolds' work on fingerprint analysis, as well as collaborative work with UCL on data extraction from mobile phones.



Scanning electron microscopy image showing nanostructure of fingerprint-development powder