



The Knowledge Network

IET / IMechE Joint Lecture

Cambridge
Network

Ultra Precision Surfaces

"for finding new planets, helping us enjoy earth and maybe to even to save it!"

by Professor Paul Shore, FIED,
McKeown Professor of Ultra Precision Technologies,
Cranfield University

Thursday 15th March 2007 at 7:00pm

Lecture Theatre 0, University of Cambridge Engineering Department,
Trumpington Street, Cambridge

Paul will review the importance of ultra precision technologies. He will describe why they are pivotal to astronomy missions, and how they are key to effective "high end" manufacturing of many consumer products. He will show how the UK has been heavily involved in establishing world beating precision engineering solutions that allow large scale nanometric quality surfaces to be produced. In a wider context he will show how important "surface form and finish" are to products such as displays, integrated circuits, mobile telephones, bearings and artificial prostheses. Pointing to the future, he will indicate how our ability to make ultra precise surfaces for astronomy missions could become an enabling technology in order to realise clean energy production methods.

Professor Paul Shore is a traditional "time served" engineer from the machine tool sector. He has held the McKeown Chair of Ultra Precision Technologies at Cranfield since 2002. Prior to moving back to Cranfield he was responsible for precision production engineering at the worlds largest anti friction bearing company, SKF in Sweden. Earlier in his career he was the co-ordinator of the first DTI LINK Nanotechnology project which developed, at that time, the world's most accurate machine tool, the Cranfield NION machine. Paul is presently the Head of the Cranfield University Precision Engineering Centre which, amongst other things, is responsible for the fabrication of mirrors for NASA's James Webb Space Telescope, the Hubble replacement. He is also the Director of the UK's Integrated Knowledge Centre for Ultra Precision and Structured Surfaces based in North Wales and managed by Cranfield in collaboration with the University of Cambridge, University College London and the OptIC Technium.

Refreshments at 6:30pm – All visitors welcome

<http://www.iet-cambridge.org.uk>

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