



**Southampton Area Panel**  
Wessex Region

# ISIS – THE SUPER MICROSCOPE

**AN ENGINEER'S WALK-THROUGH OF THE  
ISIS FACILITY, A PARTICLE ACCELERATOR  
AND 'SUPER-MICROSCOPE'**

Institution of  
**MECHANICAL  
ENGINEERS**

The ISIS pulsed neutron and muon source at the STFC Rutherford Appleton Laboratory in Oxfordshire is a world-leading large-scale science facility and centre for research in the physical and life sciences. ISIS produces beams of neutrons and muons that allow scientists to study materials at the atomic level using a suite of instruments, often described as 'super-microscopes' and supports an international community of more than 3000 scientists. For 30 years ISIS has been producing world-class science – in areas as diverse as fundamental physics and pharmacology, becoming one of the UK's major scientific achievements and changing the way the world views neutron scattering along the way.

To operate, maintain and upgrade a facility of this nature it takes a large team engineers, designers and technicians able to design for and work in very specialised conditions. This talk will give a technical overview and take a closer look at the challenges faced by engineers in such a cutting-edge field.

**6:30pm, 03/02/2015**

Nuffield Lecture Theatre A, Building 6,  
University of Southampton,  
SO17 1BJ

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**Improving the world through engineering**