



## **John Adams Institute for Accelerator Science Lecture Series**

Thursday 22<sup>nd</sup> November 2012 at 2:30pm  
Fisher Room, Denys Wilkinson Building

### ***Electron Beam Test Facility (EBTF) and proposed FEL test facility Compact Linear Accelerator for Research and Applications (CLARA) at Daresbury Laboratory***

The lecture will be delivered by  
**Dr. Deepa Angal-Kalinin**  
**(ASTeC, STFC Daresbury Laboratory)**

***Abstract:*** An Electron Beam Test Facility (EBTF) is being developed at Daresbury Laboratory to provide the beam for scientific and industrial applications and as a front end of FEL test facility under consideration at Daresbury. It is based on a RF photoinjector which delivers a ~6 MeV beam to two beam enclosures for industrial applications. The facility operating parameters and implementation status will be described. EBTF will be upgraded in next stage to FEL test facility Compact Linear Accelerator for Research and Applications (CLARA). The aim of CLARA is to develop a normal conducting test accelerator able to generate longitudinally and transversely bright electron bunches and to use these bunches in the experimental production of stable, synchronised, ultra short photon pulses of coherent light from a single pass FEL with techniques directly applicable to the future generation of light source facilities. In addition the facility will be an ideal test bed for demonstrating innovative technologies such as high repetition rate normal conducting RF linacs and advanced undulator designs.

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