

Call for applications for a PhD position at the Montanuniversität Leoben

The Chair of Functional Materials and Materials Systems of the Montanuniversität Leoben offers a **3 years PhD position** starting with **January 1st, 2014** for a research study in the frame of the EU seventh framework programme. The position is available for a project on

“iSTRESS: Pre-standardisation of incremental FIB micro-milling for intrinsic stress evaluation at the sub-micron scale.”

(more information on the project: <http://www.stm.uniroma3.it/iSTRESS/>)



The main focus of the PhD work within the frame of the iSTRESS project will be **optimization of deposition processes** and understanding of the **structure-stress relations** in thin films for the **production of residual stress-controlled nanostructured and amorphous thin film materials**. The depth-profiles of microstructure and stresses will be studied by advanced characterization techniques (optical curvature and X-ray diffraction methods coupled with synchrotron radiation sources) and the knowledge will be applied in **establishing of innovative design rules** for multi-layered nano-coatings, micro/nano-crystalline and amorphous materials, MEMS and 3D metal interconnects with cooperation of other project partners.

The successful candidate will be introduced in a network of multi-national high-level academic (RomaTre University, Oxford University, Fraunhofer, Erlangen University, NPL, ETH) and industry partners (Bosch, Thales, Tescan, Rolls-Royce, EDF) and will get a solid background in physics of thin films and methods for characterization of thin films.

To be eligible for this position, applicants must hold an **engineering degree**, a Master of Science or equivalent degree in physics or materials science. The applicants should have an **outstanding CV** showing experiences in **solid state physics, vacuum physics and technology, physics of thin films and methods for characterization of thin films**. **Excellent oral and written communication skills in English** and the ability to work well in a collaborative research environment and to publish the research work in refereed journals are essential.

Applications for the position must include a cover letter, copies of degree certificates of higher education including marks, a detailed curriculum vitae, letters of recommendation and be mailed as 1 PDF document to Dr. Rostislav Daniel: Rostislav.Daniel@unileoben.ac.at.