UK-India project set to enhance talent in atomic physics research

Posted on Wednesday 20th February 2013

A new partnership between Indian and UK scientists to develop talent and innovation in a progressive branch of atomic physics is now underway.

The University of Birmingham's School of Physics and Astronomy and the Indian Institute of Science Education and Research (**IISER (http://www.iiserpune.ac.in/)**) in Pune are collaborating in joint curriculum development, computer-based learning and experimental tool design, and knowledge transfer in the area of ultra-cold atoms.

This complex field of study is concerned with cooling atoms down to some millionths of a degree above absolute zero through the use of laser technology. Research in ultra-cold atoms has gained enormous momentum in the last decade. Experimental and theoretical investigations have opened a broad range of possible applications including high precision atomic clocks for use in everything from communications to satellite navigation.

The Birmingham/IISER Pune partnership will pave the way for students to acquire the highly developed experimental and theoretical skills and knowledge of cutting-edge technologies required for research in this discipline. In addition, it will bridge the gap between academia and industry through a workshop to be held in India this summer involving education and business partners.

Professor Kai Bongs from the University of Birmingham commented: "A major barrier in reaching redefined-excellence in ultra-cold atoms research is the availability of suitably trained manpower. This exciting project with IISER Pune aims to create an emerging group of international researchers to boost industrial research and development and innovation in this area."

Dr Umakant Rapol, Assistant Professor at IISER Pune, added: "We are delighted to be associated with this collaborative program. This collaboration will open up a platform to encourage young talent to pursue research in this front-line research area of physics with ultra-cold atoms for use in technological applications and for exploring the intriguing quantum world at an atomic scale."

The project is funded by the British Council under the Knowledge Economy Partnership strand of the Internationalising Higher Education framework supporting collaboration between UK and Indian academic institutions.

Notes to Editors

A leading UK research-intensive university, the **University of Birmingham (http://www.birmingham.ac.uk/)** is a vibrant, global community and an internationally-renowned institution, in the top 100 globally. With approximately 28,000 students and 6,000 members of staff, its work brings people from more than 150 countries to Birmingham. The University has a bold strategy to develop its global reputation by enhancing its international presence and collaborations.

For media enquiries, please contact: Catherine Byerley, International Media Relations Manager, University of Birmingham, Tel: +44 (0)121 414 8254 or Email: **c.j.byerley@bham.ac.uk (mailto:c.j.byerley@bham.ac.uk)**

© University of Birmingham 2015