

**JOB DESCRIPTION**

<b>Job Title:</b> Research Associate/Senior Research Associate in Terahertz Switching of Magnetic Materials	<b>Present Grade:</b> 6/7
<b>Department/College:</b> Department of Physics	
<b>Directly responsible to:</b> Dr Rostislav Mikhaylovskiy	
<b>Supervisory responsibility for:</b> N/A	
<b>Other contacts</b>	
<b>Internal:</b> Departmental academic, research, administrative and technical staff, PhD students.	
<b>External:</b> Industrial and academic partners.	
<b>Major Duties:</b>	
<p>The work will involve the design, setting up and development of ultrafast and THz spectroscopy experiments. These experiment will be used to study interaction of ultrashort pulses of THz and infrared light with magnetic materials with the final goal to coherently switch spin orientations.</p> <p>Specific duties could include any or all of the following: designing, building and testing of pump probe experiments involving ultrashort pulses in THz, infrared and visible spectral intervals; performing time resolved measurements of ultrafast spin dynamics; modelling and simulation of the spin dynamics; magneto-optical characterisation (room temperature and below); work with cryogenic equipment. It is likely that the role will be tailored to optimise the use of the skills and expertise of the successful candidate and existing group members.</p> <p>Publication of non-confidential results in international peer reviewed journals is expected and participation at appropriate national and international conferences may also be required.</p> <p>The work will involve close cooperation with existing group members and industrial and academic partners. Contact with other members of staff, students or external partners other than those listed above may be required as and when necessary.</p> <p>The work can also lead to commercially transferable results and the successful candidate will have an opportunity to contribute to technology transfer.</p>	