



## JOB DESCRIPTION

<b>Job Title:</b>	Post Doctorate Research Associate
<b>Department / Unit:</b>	School of Engineering, Physical and Mathematical Sciences
<b>Grade:</b>	RHUL 7
<b>Accountable to:</b>	Head of NanoPhysics group
<b>Accountable for:</b>	N/A
<b>Purpose of the Post</b>	
<p>To carry research activity in the field of superconducting quantum technologies in collaboration with the research team of Nanophysics group.</p> <p>Assisting with laboratory organisation, experimental procedures, analysis of results, teaching of undergraduate and graduate students.</p> <p>Specialised knowledge required to be able to set up equipment for and run experiments and tests for the applicable research area.</p>	
<b>Key Tasks</b>	
<p>To undertake simulations of superconducting coherence devices; to design and fabricate devices based on superconducting nanowires and superconducting qubits. This will include CAD design, clean-room processing, including nano-fabrication based on EB-lithography; to measure the devices in a dilution refrigerator at milliKelvin temperatures.</p>	
<p>Using creativity to analyse and interpret research data and draw conclusions on the outcomes</p>	
<p>Provide technical support for designated research area including maintenance of equipment, lab supplies, databases and webpages, ensuring that all work is carried out in accordance with statutory and Royal Holloway regulations as appropriate.</p>	
<p>Set up and perform experiments in close collaboration and consultation with relevant academic/research colleagues.</p>	
<p>Record, analyse and write up results, maintaining a permanent record of the methodologies and the experiments.</p>	
<p>Prepare and present findings of research activity to colleagues and at scientific meetings</p>	
<p>Contribute to the preparation of grant applications, research presentations and publications as requested.</p>	
<p>Using initiative and creativity to identify areas for research, developing new research methods and extending the research portfolio</p>	

Undergo continued personal professional development

**Other Duties**

The duties listed are not exhaustive and may be varied from time to time as dictated by the changing needs of the College. The post holder will be expected to undertake other duties as appropriate and as requested by his/her manager.

The post holder will actively follow Royal Holloway policies including Equal Opportunities policies. The post holder will also observe Fire and Health and Safety Regulations.

The post holder may be required to work at any of the locations at which the business of Royal Holloway is conducted.

**Internal and external relationships**

The following list is not exhaustive but the post holder will be required to liaise with:

Members of the research group

Other staff members of the department/school

Colleagues in other universities/other research facilities

Visitors, collaborators and suppliers to the department/school