

Job Description and Person Specification

JOB DESCRIPTION

Post title:	Research Fellow		
School/Department:	Electronics and Computer Science		
Faculty:	Faculty of Engineering and Physical Sciences		
Career Pathway:	Education, Research and Enterprise (ERE)	Level:	4
*ERE category:	Research pathway		
Posts responsible to:	Professor of Photonics		
Posts responsible for:	None		
Post base:	Non Office-based (see job hazard analysis)		

Job purpose
To undertake research on the EPSRC funded Standard Grant Project, "Photonics @ Interface: Heterogeneous Integrations for Generation, Detection, Conversion, and Modulation", under the supervision of the award holder.

Key accountabilities/primary responsibilities	% Time
1. To develop and carry out an area for the research project.	65 %
2. Regularly disseminate findings by taking the lead in preparing publication materials for referred journals, presenting results at conferences, or exhibiting work at other appropriate events.	30%
3. Contribute to the writing of bids for research funding.	
4. Investigate models and approaches to test and develop them.	
5. Collaborate/work on original research tasks with colleagues in other institutions.	
6. Carry out administrative tasks associated with specified research funding, for example risk assessment of research activities, organisation of project meetings and documentation. Implementation of procedures required to ensure accurate and timely formal reporting and financial control.	
7. Supervise the work of junior research staff.	
8. Carry out occasional undergraduate supervision, demonstrating or lecturing duties within own area of expertise, under the direct guidance of a member of departmental academic staff.	

Key accountabilities/primary responsibilities		% Time
9.	Any other duties as allocated by the line manager following consultation with the post holder.	5 %

Internal and external relationships
<p>Direct responsibility to holder of academic supervisor.</p> <p>Work in close collaboration with teams and research groups in academia and industry.</p>

Special Requirements
<p>To be available to participate in fieldwork as required by the specified research project.</p> <p>To attend national and international conferences for the purpose of disseminating research results.</p> <p><i>Applications for Research Fellow positions will be considered from candidates who are working towards or nearing completion of a relevant PhD qualification. The title of Research Fellow will be applied upon successful completion of the PhD. Prior to the qualification being awarded the title of Senior Research Assistant will be given.</i></p>

PERSON SPECIFICATION

Criteria	Essential	Desirable	How to be assessed
Qualifications, knowledge and experience	<p>PhD in Electronics or PhD in Physics or equivalent professional qualifications and experience in Research for materials</p> <p>Detailed understanding and knowledge of semiconductor device physics</p> <p>Understanding, knowledge and experience of silicon processing technology and fabrication of silicon devices.</p> <p>Previous teaching and research collaboration with students.</p> <p>Track record in Photonics, electronics or physics</p>	<p>Industrial or Postdoctoral Research experience in Electronics or Physics</p> <p>Knowledge of silicon and other materials and quantum physics</p> <p>Experience of fabrication and measurement of semiconductor devices</p> <p>Teaching at undergraduate level and contributing to teaching at postgraduate level</p>	Application and interview
Planning and organising	Able to organise own research activities to deadline and quality standards		References and interview
Problem solving and initiative	<p>Able to develop understanding of complex problems and apply in-depth knowledge to address them</p> <p>Able to develop original techniques/methods</p>		References and interview
Management and teamwork	<p>Able to supervise work of junior research staff, delegating effectively</p> <p>Able to contribute to School/Department management and administrative processes</p> <p>Work effectively in a team, understanding the strengths and weaknesses of others to help teamwork development</p> <p>Able to work with a range of colleagues from different disciplines including technicians</p>		References and interview
Communicating and influencing	<p>Communicate new and complex information effectively, both verbally and in writing, engaging the interest and enthusiasm of the target audience</p> <p>Able to present research results at group meetings and conferences</p> <p>Able to write up research results for publication in leading peer-viewed journals</p> <p>Work proactively with colleagues in other work areas/institutions, contributing specialist knowledge to achieve outcomes</p>		Application and interview
Other skills and behaviours	Understanding of relevant Health & Safety issues		Application and interview

	Positive attitude to colleagues and students		
Special requirements	Able to attend national and international conferences to present research results		Application and interview

JOB HAZARD ANALYSIS

Is this an office-based post?

<input type="checkbox"/> Yes	If this post is an office-based job with routine office hazards (eg: use of VDU), no further information needs to be supplied. Do not complete the section below.
<input checked="" type="checkbox"/> No	If this post is not office-based or has some hazards other than routine office (eg: more than use of VDU) please complete the analysis below. Hiring managers are asked to complete this section as accurately as possible to ensure the safety of the post-holder.

- HR will send a full PEHQ to all applicants for this position. Please note, if full health clearance is required for a role, this will apply to all individuals, including existing members of staff.

ENVIRONMENTAL EXPOSURES	Occasionally (<30% of time)	Frequently (30-60% of time)	Constantly (> 60% of time)
Outside work			
Extremes of temperature (eg: fridge/ furnace)	✓		
## Potential for exposure to body fluids			
## Noise (greater than 80 dba - 8 hrs twa)	✓		
## Exposure to hazardous substances (eg: solvents, liquids, dust, fumes, biohazards). Specify below:		✓	
Frequent hand washing	✓		
Ionising radiation		✓	
EQUIPMENT/TOOLS/MACHINES USED			
## Food handling			
## Driving university vehicles(eg: car/van/LGV/PCV)			
## Use of latex gloves (prohibited unless specific clinical necessity)			
## Vibrating tools (eg: strimmers, hammer drill, lawnmowers)			
PHYSICAL ABILITIES			
Load manual handling	✓		
Repetitive crouching/kneeling/stooping			
Repetitive pulling/pushing			
Repetitive lifting			
Standing for prolonged periods	✓		
Repetitive climbing (ie: steps, stools, ladders, stairs)			
Fine motor grips (eg: pipetting)			
Gross motor grips			
Repetitive reaching below shoulder height	✓		
Repetitive reaching at shoulder height	✓		
Repetitive reaching above shoulder height	✓		
PSYCHOSOCIAL ISSUES			
Face to face contact with public			
Lone working	✓		
## Shift work/night work/on call duties			