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| Last updated: | 11th February 2022 |

**JOB DESCRIPTION**

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| Post title: | **Enterprise Fellow**  |
| School/Department: | Optoelectronics Research Centre (ORC) |
| Faculty: | Faculty of Engineering and Physical Sciences |
| Career Pathway: | Education, Research and Enterprise (ERE) | Level: | 4 |
| \*ERE category: | Enterprise pathway |
| Posts responsible to: | CORNERSTONE Process Design Kit Manager |
| Posts responsible for: | Not applicable |
| Post base: | Office-based |

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| Job purpose |
| To contribute to the successful delivery of enterprise projects under the supervision of a project leader. Consult effectively in Silicon Photonics design and characterisation specialism and build client relationships. To undertake leadership, management and engagement activities, contributing to the effective management and administration of Enterprise activities. |

| Key accountabilities/primary responsibilities | % Time |
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|  | Consult effectively on own specialism directly with clients or other stakeholders external to the University; develop an area of specialism; may be responsible for peer-to-peer relationship management with client staff. Design and characterise photonics components on all CORNERSTONE platforms for the process design kit (PDK). Liaise with PDK partners to disseminate designs and associated data. | 40 % |
|  | Design, construct, and evaluate products/ prototypes, models, tests or experiments. Manage design rules for all CORNERSTONE platforms and perform design rule checking (DRC) on submitted designs from external users. | 20 % |
|  | Carry out Enterprise activities such as consulting, applied research, service provision, trials and testing or other evaluation work (often under supervision of a project leader). This will include providing specialist design knowledge for the CORNERSTONE activities; manage own time to plan, develop and improve processes on specialist cleanroom equipment that can be used for all platforms.  | 10 % |
|  | Propose specifications/solutions to meet client and other stakeholder need, including pricing considerations. This can include taking a lead on specific technical offerings within a facility for enterprise clients. | 5 % |
|  | Contribute to income generation e.g. through contribution to developing and winning enterprise projects. | 5 % |
|  | Write and edit reports. 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.Manage reticle library and act as point of contact with reticle supplier for the Silicon Photonics Group. You will be responsible for mask processing and ordering all reticles. | 5 % |
|  | Carry out administrative tasks associated with CORNERSTONE, for example risk assessment of research activities, organisation of project meetings and documentation. Implementation of procedures required to ensure accurate and timely formal reporting. Supervise others, e.g. technicians, casual staff, to achieve end result. | 5 % |
|  | Attend internal and external meetings to ensure the work unit issues are represented. Attend publicity events and/or conferences to promote CORNERSTONE. | 5 % |
|  | Any other duties as allocated by the line manager following consultation with the post holder. | 5 % |

| Internal and external relationships |
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| Direct responsibility to holder of research award or academic supervisor. Collaborate with CORNERSTONE research and technical teams and project partners at the University of Glasgow.Liaise with process design kit partners including Luceda Photonics.Interact with Masters, Ph.D. students and other research fellows.Build relationships with external CORNERSTONE users. |

| Special Requirements |
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| To attend national and international conferences for the purpose of disseminating research results.May be required to work in Class 100 and 1000 cleanrooms.Awareness of health and safety procedures. |

**PERSON SPECIFICATION**

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| Criteria | Essential | Desirable | How to be assessed |
| Qualifications, knowledge and experience | Ph.D. in physics or engineering (or equivalent), specialising in photonic devicesExperienced in Silicon Photonics device design, mask layout and characterisationExperience in mathematical modelling of photonic devices such as Lumerical, Silvaco and RSoftTrack record of published research in photonic devices | PhD in Silicon PhotonicsExperience in Luceda Photonics’ IPKISS softwareExperience in MatLab |  |
| Planning and organising | Able to organise own research/ consultancy activities to deadline and quality standards |  |  |
| Problem solving and initiative | Able to develop understanding of complex problems and apply in-depth knowledge to address themAble to develop original techniques/methods |  |  |
| Management and teamwork | Able to supervise work of junior staff, delegating effectivelyAble to contribute to School/Department management and administrative processesWork effectively in a team, understanding the strengths and weaknesses of others to help teamwork development |  |  |
| Communicating and influencing | Communicate new and complex information effectively, both verbally and in writing, engaging the interest and enthusiasm of the target audienceAble to present research results at group meetings and conferencesAble to write up research results for publication in leading peer-viewed journalsWork proactively with colleagues in other work areas/institutions, contributing specialist knowledge to achieve outcomes |  |  |
| Other skills and behaviours | Understanding of relevant Health & Safety issuesPositive attitude to colleagues and students |  |  |
| Special requirements | Able to attend national and international conferences to present research results |  |  |

**JOB HAZARD ANALYSIS**

**Is this an office-based post?**

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| [ ]  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. |
| [x]  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.

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