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| Last updated: | September 2024 |

**JOB DESCRIPTION**

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| Post title: | **Research Fellow in Fibre Optics** | | |
| Academic Unit/Service: | Optoelectronics Research Centre | | |
| Faculty: | Faculty of Engineering and Physical Science (FEPS) | | |
| Career Pathway: | Education, Research and Enterprise (ERE) | Level: | 4 |
| \*ERE category: | Research pathway | | |
| Posts responsible to: | Prof Radan Slavik | | |
| Posts responsible for: | None | | |
| Post base: | Non Office-based | | |

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| Job purpose |
| To undertake research in accordance with the EPSRC project EP/T014733/1 under the supervision of Prof Radan Slavik. To undertake leadership, management and engagement activities. |

| Key accountabilities/primary responsibilities | | % Time |
| --- | --- | --- |
|  | To develop and carry out an area of personal research. | 65 % |
|  | Help disseminate research (preparing publication materials for referred journals, presenting results at conferences, or exhibiting work at other appropriate events) and maintain relationships with collaborators. | 15 % |
|  | Help with the running of the group:   * Supervise the work of junior research staff. * 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. | 10 % |
|  | Any other duties agreed between the line manager and employee | 10% |

| Internal and external relationships |
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| Direct responsibility to holder of research award or academic supervisor.  Interact with Ph.D. students and other research fellows.  Collaborate with the research team and external partners.  May have additional reporting and liaison responsibilities to external funding bodies or sponsors. |

| Special Requirements |
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| To attend national and international conferences for the purpose of disseminating research results.  Required to work in cleanrooms.  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. |

**PERSON SPECIFICATION**

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| Criteria | Essential | Desirable | How to be assessed |
| Qualifications, knowledge and experience | Ph.D. or equivalent professional qualifications and experience in physics or engineering, specializing in optics  Experience in experimental fibre optics including the design and characterization of optical fibre components and subsystems.  Strong track record of published research in fibre optics | Experience in the design and fabrication of optical fibre components  Experience in the area of nonlinear fibre optics  Experience in fibre optics communications  Experience in handling standard as well as non-standard types of optical fibres. Experience in working in various wavelengths bands (e.g., visible, near-IR, mid-IR, etc.).  Experience in advanced characterization techniques of optical components and subsystems. | Certificates, interview, or references |
| Planning and organising | Ability to develop high quality research activities individually, to aid with the organisation of a research team and to meet deadlines |  | Interview and references |
| Problem solving and initiative | Able to develop understanding of complex problems and apply in-depth knowledge to address them  Able to develop original techniques/methods |  | Interview and references |
| Management and teamwork | Able to supervise work of junior research staff, delegating effectively.  Work effectively in a team, understanding the strengths and weaknesses of others to help teamwork development |  | Interview and references |
| Communicating and influencing | Communicate new and complex information effectively, both verbally and in writing, engaging the interest and enthusiasm of the target audience  Able to present research results at group meetings and conferences  Able to write up research results for publication in leading peer-viewed journals  Work proactively with colleagues throughout the ORC, University of Southampton and other institutions, contributing specialist knowledge to achieve outcomes |  | Application and interview |
| Other skills and behaviours | Understanding of relevant Health & Safety issues  Motivated and enthusiastic work ethic  Positive attitude to colleagues and students | A strong background in the design, fabrication and characterization of optical fibre components, with deep understanding of underlaying physics and developing new experimental techniques. | Application and interview |
| 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?**

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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. |
| 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) | X |  |  |
| ## Potential for exposure to body fluids | N/A |  |  |
| ## Noise (greater than 80 dba - 8 hrs twa) | N/A |  |  |
| ## Exposure to hazardous substances (eg: solvents, liquids, dust, fumes, biohazards). Specify below: |  | X |  |
| Frequent hand washing | N/A |  |  |
| Ionising radiation | N/A |  |  |
| **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) | N/A |  |  |
| Gross motor grips | N/A |  |  |
| Repetitive reaching below shoulder height |  | X |  |
| Repetitive reaching at shoulder height | N/A |  |  |
| Repetitive reaching above shoulder height | X |  |  |
| **PSYCHOSOCIAL ISSUES** | | | |
| Face to face contact with public | N/A |  |  |
| Lone working |  | X |  |
| ## Shift work/night work/on call duties | N/A |  |  |