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| Last updated: | July 2023 |

**JOB DESCRIPTION**

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| Post title: | **Professor of Photonics/Optoelectronics** |
| Standard Occupation Code: (UKVI SOC CODE) | 2119 |
| School/Department: | Optoelectronic Research Centre (ORC) |
| Faculty: | Faculty of Engineering and Physical Sciences |
| Career Pathway: | Education, Research and Enterprise (ERE) | Level: | 7 |
| \*ERE category: | Research pathway |
| Posts responsible to: | Deputy Director of ORC or Director of ORC  |
| Posts responsible for: | Research staff within your group  |
| Post base: | Office-based/Non Office-based (see job hazard analysis) |

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| Job purpose |
| Responsible for planning and coordinating a broad research activity/programme, reporting to the ZI director or deputy director. To undertake leadership, management and engagement activities. |

| Key accountabilities/primary responsibilities | Approx % Time |
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|  | Leading the management and generation of research grants, projects and contracts, exploiting research initiatives and opportunities.The management of staff teams and resource management processes necessary to deliver School, Faculty and University strategic research plans. Setting-up and leading major funding bids.Lead a broad, impactful research programme and activities in an area of recognised excellence for the University. Act as principal investigator on major projects, responsible for defining original research objectives and leading research programmes.  | 40 % |
|  | Sustain and enhance a significant national and international reputation as a research leader in a major subject area, maintaining the regular dissemination and explanation of findings through leading peer-reviewed publications, major conferences, or exhibiting work at other appropriate events. | 15 % |
|  | Devise, develop and oversee the application of innovative and creative research methodologies and techniques that add to the knowledge/understanding of a major subject area. Interpret findings from research projects and develop new insights, expanding, refining and testing hypotheses and ideas. | 15% |
|  | Lead a research group and oversee management of administrative tasks associated with specified research funding, including risk assessment of programme activities, leading project meetings and preparation of annual reports. Direct the management of procedures required to ensure accurate and timely formal reporting and financial control. | 15 % |
|  | Develop major research partnerships with external organisations.Undertake liaison with external organisations including equipment manufacturers, steering committees, associated academic facilities and commercial users. |  |
|  | Lead and contribute to the development of research strategies for the ORC.Make a sustained contribution to leadership of the ORC and also at faculty level or committee level on a rotational basis. Sit on national and international bodies; act as advisor to government and in other external advisory capacities. |  |
|  | Collaborate on and develop original research with colleagues in other institutions.Provide expert advice and subject leadership to other staff and postgraduate students, including research supervision. | 10% |
|  | Any other duties as allocated by the line manager following consultation with the post holder. | 5% |

| Internal and external relationships |
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| Responsible to senior leadership in the ORCPrimary responsibility for reporting and liaison to external funding bodies or sponsors. Coordinate the day-to-day activities of research and technical staff, collaborators and colleagues in other work areas and institutions. |

| Special Requirements |
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| To attend national and international conferences for the purpose of disseminating research results.Travel to Industrial sponsors for reporting purposes. |

**PERSON SPECIFICATION**

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| Criteria | Essential | Desirable | How to be assessed |
| Qualifications, knowledge and experience | PhD or equivalent professional qualifications and experience in Optoelectronics and PhotonicsDetailed knowledge of Optoelectronics and PhotonicsA significant national and international reputation in Optoelectronics and PhotonicsA sustained record of excellence in research activities. | PhD in Optoelectronics and Photonics or relevant research area.Membership of national or international advisory bodies, such as RAEng, FSPIE, FOSA, IEEE.Involvement in national and international events.Evidence of international stature in the field as evidenced by prizes and awards. |  |
| Planning and organising | Proven ability to champion and oversee key contributions to School and/or University research, education and enterprise strategies.Proven ability to lead research activities, grants and/or contracts of national and international importance.Proven ability to lead the development of enterprise strategies through ongoing leadership in the dissemination of knowledge and/or technology transfer. |  |  |
| Problem solving and initiative | Proven ability to implement successful change management initiatives and formulate strategic plans that reflect and support the priority needs of the University. |  |  |
| Management and teamwork | Proven ability to oversee people and resource management processes in order to deliver key post-graduate education, research and enterprise activities.Proven ability to make a sustained contribution to academic leadership at discipline, School and Faculty level.Proven ability to demonstrate leadership abilities in research and to raise performance standards through own work areas.Proven ability to recognise and deal with obstacles and difficulties so that the team can deliver. |  |  |
| Communicating and influencing | Proven ability to establish and build major relationships with stakeholders.Proven ability to act as the main figurehead for key activities, developing important national and international contacts.Able to contribute to the development of the University’s profile in the UK and internationally.Proven ability to use influence to develop positions or strategies. |  |  |
| Other skills and behaviours | Compliance with relevant Health & Safety issuesPositive attitude to colleagues and students |  |  |
| Special requirements | Able to attend national and international conferences as required. |  |  |

**JOB HAZARD ANALYSIS**

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

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| [x]  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  |  |  |  |
| 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  |  |  |  |