

Job Description & Person Specification

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| Last updated: 08/11/2024 |

**JOB DESCRIPTION**

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| Post title: | **Research Fellow in High Field HTS Magnets** | | |
| Academic Unit/Service: | Mechanical Engineering Department, School of Engineering | | |
| Faculty: | FEPS |  |  |
| Career pathway: | ERE | Level: | ERE Level 4 |
| \*ERE category: | Research pathway | | |
| Posts responsible to: | Prof Yifeng Yang | | |
| Posts responsible for: | n/a | | |
| Post base: | Non office-based (see job hazard analysis) | | |

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| Job purpose |
| To undertake research in accordance with the High Field Magnets projects <https://soton.worktribe.com/record.jx?recordid=8905002>) under the supervision of the award holder. To undertake leadership, management and engagement activities. |

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| Key accountabilities/primary responsibilities | | % Time |
| 1. | To develop and carry out research defined by the research project | 70 |
| 2. | To participate and maintain collaboration with CERN as a part HFM project | 12 |
| 3. | To expand the research scope through preliminary research and developing new internal/external collaborations. | 5 |
| 4. | Regularly disseminate an/or report findings by taking the lead in preparing the materials for publication/reporting, and presenting results at meetings. | 3 |
| 5. | 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. | 5 |
| 6. | Any other duties as allocated by the line manager following consultation with the post holder. | 5 |

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| Internal and external relationships |
| Direct responsibility to holder of the research award or academic supervisor.  May have additional reporting and liaison responsibilities to external funding bodies and collaborators. Collaborators/colleagues in other work areas and institutions. |

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| Special Requirements |
| *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 | PhD or equivalent professional qualifications and experience in mechanical/electrical engineering or applied/experimental physics | PhD or equivalent professional qualifications and experience in applied superconductivity and cryogenics with hand-on experimental skills | CV |
| Planning and organising | Able to organise own research activities to deadline and quality standards |  | Interview |
| 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 |
| Management and teamwork | Able to supervise work of junior research staff, delegating effectively  Able to contribute to Academic Unit management and administrative processes  Work effectively in a team, understanding the strengths and weaknesses of others to help teamwork development |  | Interview |
| 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 in other work areas/institutions, contributing specialist knowledge to achieve outcomes |  | Interview |
| Other skills and | Understanding of relevant Health & |  | Interview |

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| behaviours | Safety issues  Positive attitude to colleagues and students |  |  |
| Special requirements |  |  |  |

**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 |  |  |  |
| 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: |  | Need to work with cryogens and laboratory chemicals in a cryogenic lab |  |
| Frequent hand washing |  | As required by the specific lab procedure |  |
| 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 |  |  |  |