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| Last updated: | January 2020 |

**JOB DESCRIPTION**

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| Post title: | **Research Fellow in Offshore Renewable Energy (Computational and/or Fluid-Structure): Intelligent & Resilient Ocean Engineering** | | |
| School/Department: | Engineering | | |
| Faculty: | Engineering and Physical Sciences | | |
| Career Pathway: | Education, Research and Enterprise (ERE) | Level: | 4 |
| \*ERE category: | Research pathway | | |
| Posts responsible to: | RAEng Chair in Emerging Technologies in Intelligent & Resilient Ocean Engineering | | |
| Posts responsible for: |  | | |
| Post base: | Office-based/Non Office-based (see job hazard analysis) | | |

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| Job purpose |
| To undertake research associated with the Royal Academy of Engineering (RAEng) Chair in Emerging Technologies in Intelligent & Resilient Ocean Engineering and the The Alan Turing Institute under the supervision of the Professor of Offshore Geotechnical Engineering and the Associate Professor. To undertake leadership, management and engagement activities, consistent with the broader industry and community outreach role of the RAEng Chair in Emerging Technologies. |

| Key accountabilities/primary responsibilities | | % Time |
| --- | --- | --- |
|  | To develop and carry out an area of research, linked to computational and/or fluid-structure interaction aspects of offshore renewable energy moorings, within the RAEng Intelligent & Resilient Ocean Engineering Hub at the University of Southampton. | 70% |
|  | 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. | 20% |
|  | Contribute to the writing of bids for research funding. |
|  | Investigate models and approaches to test and develop them. |
|  | Carry out administrative tasks associated with the Hub of the RAEng Chair in Emerging Technologies in Intelligent & Resilient Ocean Engineering, for example organisation of meetings, events and documentation. |
|  | Any other duties as allocated by the line manager following consultation with the post holder. | 10% |

| Internal and external relationships |
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| Direct responsibility to holder of research award/academic supervisor – RAEng Chair in Emerging Technologies in Intelligent & Resilient Ocean Engineering, Professor of Offshore Geotechnical Engineering; and Co-supervisor Associate Professor, Data-Centric Engineering Group Lead for Maritime at The Alan Turing Institute.  Network and relationships related to RAEng Chair in Emerging Technologies in Intelligent & Resilient Ocean Engineering and The Alan Turing Institute at other research institutions, industry partners and community partners, nationally and internationally. |

| Special Requirements |
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| To attend national and international conferences for the purpose of disseminating research results.  *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 computational analysis, statistics, fluid mechanics or a related discipline | PhD in computational analysis or offshore fluid mechanics  Knowledge and experience of offshore renewable energy systems, or offshore facilities  Experience of laboratory testing, such as towing tank, flume testing, wind tunnel or geotechnical centrifuge modelling  Experience gathering or interpreting field measurements, such as monitoring data  Experience of working in interdisciplinary teams  Experience sharing research outcomes through non-traditional means, e.g. webapps and websites | Application, interview and references |
| Planning and organising | Demonstrate explicitly the ability to organise own research activities to deadline and quality standards |  | Application, 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 and methods |  | Application, interview and references |
| Management and teamwork | Able to supervise work of junior research staff or PhD students  Able to work effectively in a team, sharing responsibilities and workload to achieve agreed outcomes |  | Application, interview and references |
| Communicating and influencing | Able to work proactively and constructively with colleagues in other disciplines and in other institutions  Able to communicate effectively, both verbally and in writing, engaging target audiences in your own and related disciplines  Able to present research at meetings and conferences to a range of audience types  Able to write up research for publication in leading peer-viewed journals |  | Application, interview and references |
| Other skills and behaviours | Understanding of Health & Safety issues  Positive and inclusive attitude to colleagues and students  Proactive in promoting a working environment that is inclusive and engaging; recognising the value diversity brings. |  | Application, interview and references |
| Special requirements | Able to attend national and international conferences to collaborate and present research results |  | Application, interview and references |

**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: |  |  |  |
| 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 |  |  |  |