Job Description and Person Specification

Last updated: 21st August 2024

**JOB DESCRIPTION**

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| Post title: | Research Fellow in Energy Analytics | | |
| Standard Occupation Code: (UKVI SOC CODE) | 2119 | | |
| School/Department: | Engineering/Civil, Maritime and Environmental Engineering/Energy and Climate Change Group/Sustainability Implementation Group (SIG) | | |
| Faculty: | Engineering and Physical Sciences | | |
| Career Pathway: | Education, Research and Enterprise (ERE) | Level: | 4 |
| \*ERE category: | Research pathway | | |
| Posts responsible to: | Prof A S Bahaj Chair of SIG and Head of Energy and Climate Change Group | | |
| Posts responsible for: | N/A | | |
| Post base: | Office-based or Non Office-based (see job hazard analysis) | | |

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| Job purpose |
| To undertake research and analyses in accordance with the specified research and institutional projects under the supervision of the award holders.  Supporting the team in organising engagements and meetings with internal and external stakeholders.  Provide a professional interface between academics, researchers, and our sustainability strategy around the University and elsewhere.  To undertake leadership, management and engagement activities as required. |

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| Key accountabilities/primary responsibilities | % Time |
| 1. Research and analyses including the following:  * To carry out research and analyses in the areas of the group’s projects and produce appropriate outputs. * Undertake coordination of research including field work and projects’ outcomes with internal/external stakeholders. * Prepare progress reports including the publication of research outputs through ECCD/university websites and academic depositories/databases. * Undertake the organisation and management of events, engagement activities. | 70 % |
| 1. Regularly disseminate findings by taking the lead in preparing publication materials for engagement events, conferences, workshops, referred journals, and presenting results and exhibiting work at other appropriate events. | 10% |
| 1. Contribute to the writing of bids for research funding. | 5% |
| 1. 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. | 5% |
| 1. Carry out occasional undergraduate/MSc supervision, demonstrating within own area of expertise, under the direct guidance of a member of the group academic staff. | 5% |
| 1. 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 holders of awards or academic supervisors. * May have additional reporting and liaison responsibilities to external bodies or sponsors. * Collaborators/colleagues in other work areas and institutions. |

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| Special Requirements |
| * To be available to participate in fieldwork as required by the specified research projects. * 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, renewable energy, carbon emissions, energy systems, or a demonstrably relevant subject.  Experience in areas related to energy, energy efficiency, emissions and sustainability.  Experience of cleaning, linking and analysing high spatial and temporal resolution energy supply and demand data.  Strong data analysis skills including:   * Experience of creating reproducible analytic processes/pipelines using R/Python or similar programmes. * Statistical analyses and use of GIS software. * Working with large datasets/linking data * Understanding of value of quantitative / qualitative - mixed methods approaches. * Experience of running/implementing field trials. | PhD in areas related to energy and the built environment.  Experience of using R/ArcGIS or similar for spatial analysis.  Demonstrable expertise in the use of code versioning tools such as (GitHub/GitLab).  Familiarity/experience in spatial data analysis (specifically spatial microsimulation techniques)  Experience working with industry partners.  Experience of interaction with local authorities and industry.  Contribution to teaching and assessments of students’ work.  Accreditation from ONS to access data in the Secure Research Service (SRS).  Driving license. | Qualifications, quality of application, CV, record of outputs, track record, interview, and references. |
| Planning and organising | Able to organise own research activities to deadline and quality standards.  Able to manage simultaneous research projects to timely delivery. |  | Application, CV, interview, 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 and use initiative.  Able to use data to inform decisions and produce concise reports and summaries for project investigators. |  | Application, past evidence, interview, references. |
| Management and teamwork | Able to supervise and assist the work of junior research staff, delegating effectively.  Contribute to Division administrative processes.  Work effectively in a team, understanding the strengths and weaknesses of others to help teamwork development. |  | CV, interview, 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 write up research results for publication in leading peer-viewed journals.  Able to present research results at group meetings, workshops and conferences.  Work proactively with colleagues in other work areas/institutions,  contributing specialist knowledge to achieve outcomes. |  | Application, CV, track record, interview, references. |
| Other skills and behaviours | Understanding of relevant Health & Safety issues.  Positive attitude to colleagues and students. |  | Interview. |
| Special requirements | Able to attend national and international conferences and meetings to present research results.  Able to contribute to field work. |  | Past record, 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 |  |  |  |
| 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 | Yes |  |  |
| Lone working | Yes |  |  |
| ## Shift work/night work/on call duties |  |  |  |