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| Last updated: | 24/2/2021 |

**JOB DESCRIPTION**

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| Post title: | **Research Fellow in Citizen-Centric AI Systems** | | |
| School/Department: | Electronics and Computer Science | | |
| Faculty: | Faculty of Engineering and Physical Sciences | | |
| Career Pathway: | Education, Research and Enterprise (ERE) | Level: | 4 |
| \*ERE category: | Research pathway | | |
| Posts responsible to: | Dr Sebastian Stein | | |
| Posts responsible for: | n/a | | |
| Post base: | Office-based | | |

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| Job purpose |
| To undertake research aligned with the aims and objectives of the Turing AI Fellowship: Citizen-Centric AI Systems under the supervision of Dr Sebastian Stein. Specifically, the research will concern the design of intelligent agents that assist non-expert users in interacting with large-scale AI systems (especially in smart transportation, smart energy or disaster response applications).  To undertake leadership, management and engagement activities, including with project partners from industry and with the general public. |

| Key accountabilities/primary responsibilities | | % Time |
| --- | --- | --- |
|  | To develop and carry out research on citizen-centric AI systems. | 50 % |
|  | Regularly disseminate findings by taking the lead in preparing publication materials for refereed journals, presenting results at conferences, or exhibiting work at other appropriate events. | 10 % |
|  | Contribute to the writing of bids for research funding. | 5 % |
|  | Investigate models for citizen-centric AI systems and approaches to test and develop them. | 5 % |
|  | Collaborate/work on original research tasks on citizen-centric AI systems with colleagues in other institutions, including with industrial partners. | 10 % |
|  | 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 % |
|  | Supervise the work of junior research staff. | 5 % |
|  | Carry out occasional undergraduate supervision, demonstrating or lecturing duties within own area of expertise, under the direct guidance of a member of departmental academic staff. | 5 % |
|  | Any other duties as allocated by the line manager following consultation with the post holder. | 5 % |

| Internal and external relationships |
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| Direct responsibility to Dr Sebastian Stein (grant holder).  May have additional reporting and liaison responsibilities to external funding bodies or sponsors.  May be asked to serve on a relevant School/Department committee, for example research committee.  Collaborators/colleagues in other work areas and institutions. |

| Special Requirements |
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| To be available to participate in fieldwork as required by the specified research project.  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 computer science, artificial intelligence, multi-agent systems or human-computer interaction.  Detailed understanding and knowledge of artificial intelligence techniques.  Experience of implementing artificial intelligence algorithms.  Experience of publishing research at top international conferences or similar venues. | PhD related to human-AI interaction, preference elicitation and/or explainable AI.  Knowledge of machine learning, interactive AI, reinforcement learning and/or preference models.  Experience of designing and running experimental studies involving end-users of AI systems. | Application Form, CV and Interview |
| Planning and organising | Able to organise own research activities to deadline and quality standards. | Able to organise stakeholder meetings (including with industrial partners or end user groups). | Application Form, CV and 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. |  | Application Form, CV and Interview |
| Management and teamwork | Able to supervise work of junior research staff, delegating effectively.  Able to contribute to School/Department management and administrative processes.  Work effectively in a team, understanding the strengths and weaknesses of others to help teamwork development. |  | Application Form, CV and 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. | Able to organise outreach activities and disseminate research results via the project website and social media. | Application Form, CV and Interview |
| Other skills and behaviours | Understanding of relevant Health & Safety issues.  Positive attitude to colleagues and students. |  | Application Form and Interview |
| Special requirements | Able to attend national and international conferences to present research results. |  | Application Form |

**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 |  |  |  |