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| Last updated: | July 11, 2022 |

**JOB DESCRIPTION**

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| Post title: | Research Fellow, Health Interactive Technologies & Design | | |
| Academic Unit/Service: | Electronics & Computer Science | | |
| Faculty: | Faculty of Engineering and Physical Sciences (FEPS) | | |
| Career pathway: | Education, Research and Enterprise (ERE) | Level: | 4 |
| \*ERE category: | **Research pathway** | | |
| Posts responsible to: | Principal Investigator | | |
| Posts responsible for: | n/a | | |
| Post base: | **Office-based**/Non Office-based (see job hazard analysis) | | |

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| Job purpose |
| To carry out high quality research in the areas of human computer interaction in line with the plans of the HRIT project. To develop and enact research plans which are consistent with the project’s overall aims. |

| Key accountabilities/primary responsibilities | | % Time |
| --- | --- | --- |
|  | To undertake a range of high quality research activities under supervision of the PI on human computer interaction in the wellthlab.ac.uk from development to publication.   Defining and development of novel research strands within identified lab projects, in consultation with the PI, is a significant component of this post. Development will include literature review, user studies, evaluation, software development, data analysis; publication will include all appropriate fora, from top tier publications to development of research workshops and outreach presentations. These activities will be undertaken in consultation with the PI.   Beyond any one specific project, RFs in the WellthLab also collaborate with other members of the lab to support additional projects, again, in consultation with the PI. | 75% |
|  | To assist the PI in carrying out technical, management and administrative tasks including risk assessment of project activities, organisation of project meetings and related documentation; implementation of procedures required to ensure accurate and timely formal reporting, and liaison with funding organisations to ensure the managerial and reporting procedures are fulfilled. To undertake liaison with the project partners to ensure the project’s work plans are fulfilled. | 15% |
|  | To carry out occasional demonstrating within the post holder’s area of expertise and 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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| Perform collaborative research with project partners and international university collaborators as agreed with the PI.  Present reports to project funders, the management committee and the steering and advisory groups as assigned. |
| 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 Computer Science: HCI, or can demonstrate their related PhD (completed or just about to complete) will enable delivery of goals of program  Knowledge of and demonstrable experiences with a range of HCI experimental design methods, including statistical methods, qualitative analysis, co-design.  Demonstrable experience of developing/running various kinds of user studies including co-design, in lab studies, in the wild studies, mixed methods  Published research (lead authorship) in top quality journals (and conferences where equivalent, such as CHI, UIST etc)   Demonstrated excellence in fundamental research tasks such as annotated literature surveys; identifying research gaps/opportunities; building a study plan to explore these opportunities.  Demonstrable coding experience for example with python, javascript, React; app building for ios/Android, web apps. | Working knowledge of sensors like EEG; experience with sensor design/UI design  Has developed interactive systems  Is comfortable with programming raspberry pi’s; electronics work with arduinos/microcontrollers a plus.  Experience with data visualisation approaches  Has developed mobile applications for iOS/Android  Demonstrable experience with systems thinking approaches  Has working knowledge of / experience with cognitive assessment methods  Experience in motor learning activities such as acoustic instrument performance or team or individual sport  Interest in physiological signal processing from EEG to breathing and/or creating tactile interactions  Has developed software for hardware  comfortable coding with Javascript, python and React  Innovations in data presentation for user sense making | Application and interview |
| Planning and organising | Excellent organisational and time management skills  Demonstrated ability to organise a range of individual and team activities to deadline and quality standards.  Proactive in seeking out funding opportunities  Proactive in seeking out opportunities for sharing/building work such as workshops, summer schools, seminar series and related support | Experience organising and delivering research workshops or similar activities.  Demonstrated engagement in developing successful research funding | Application and interview |
| Problem solving and initiative | Demonstrated excellent research–based analytical skills  Demonstrated excellence in synthesis of research related work.  Ability to develop and conduct high quality independent research, including identifying novel, related opportunities both within current projects and for future project development.  Ability to problem solve effectively  Able to develop understanding of complex problems and apply in-depth knowledge to address them. |  | Application and interview |
| Management and teamwork | Ability to work well as part of a team  Works proactively to create solutions with the PI  Able to work independently and make appropriate decisions.  Ability to craft reasonable objectives, timelines and delivery dates; works proactively to update other stakeholders, including the PI (does not need to be chased).  Work effectively in a team, understanding the strengths and weaknesses of others to help teamwork development.  Requires minimal supervision.  Owns open loops, and proactively consults with PI | Examples of research project management, leading research project collaborations/evidence of successes | Application and interview |
| Communicating and influencing | Excellent written and verbal communication skills  Evidence of the ability to produce published and publishable research reports/papers.  Ability to present technical material at conferences and workshops  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. | Experience presenting to research funding bodies | Application and interview |
| Other skills and behaviours | Ability to take on board direction and feedback, and demonstrate engagement with and understanding of that direction.  Understanding of relevant Health & Safety issues.  Proactive in promoting a working environment that is inclusive and engaging. |  |  |
| Special requirements |  | Has working knowledge of physiology, and other related sports science areas. | Application and 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 |  |  |  |
| Lone working |  |  |  |
| ## Shift work/night work/on call duties |  |  |  |