Research Staff

Job description

Post Title: Research Associate in Robotics
Grade: F
Faculty/Service: Faculty of Environemtn and Technology/ Bristol Robotics Laboratory
Accountable to: Professor of Robotics
Accountable for: N/A.
Post no: R00359

Job context

Bristol Robotics Laboratory (BRL) is the most comprehensive academic centre for multi-disciplinary robotics research in the UK. It is a collaborative partnership between the University of the West of England (UWE) and the University of Bristol, and home to a vibrant community of over 200 academics, researchers and industry practitioners. The primary mission of Bristol Robotics Laboratory (BRL) is to understand the science, engineering and social role of robotics and embedded intelligence and, in particular, the key challenges surrounding adaptive robotics, namely. The latter involves dealing with people and their unpredictability, unstructured and uncertain environments, and equipping robots for flexible roles.

Job purpose

To conduct research individually or as part of a research team in order to achieve research outcomes which meet the objectives of the project/department/faculty.

Principal accountabilities

1. Research and scholarship
   Undertakes basic research for example by preparing, setting up, conducting and recording the outcome of experiments, performing theoretical analysis, the development of questionnaires and conducting surveys.
   Analyses and interprets the results of own research and generate original ideas based on outcomes.

2. Workload and project planning
   Plans own day-to-day research activity within the framework of the agreed programme.
   Co-ordinates own work with that of others to avoid conflict or duplication of effort.
   Contributes to the planning of research projects.

3. Communications
   Presents information on research progress and outcomes to bodies supervising research, e.g., steering groups. This could include making presentations at conferences.
Writes up results of own research and contributes to the production of research reports and publications

4. **Teamwork/people management**
   Provides guidance to support staff and any students who may be assisting with the research. Actively participates as a member of a research team.

5. **Liaison and networking**
   Makes internal and external contacts to develop knowledge and understanding and to form relationships for future collaboration.
   Contributes to preparing proposals and applications to external bodies e.g., in relation to funding

6. **Teaching and learning**
   Assists in the supervision of student projects. May be expected to contribute to introductory courses, for example, in the use of research methods and equipment.

7. **Other**
   Sensory and physical demands will vary from relatively light to a high level depending on the discipline and the type of work.
   Depending on the area of work and level of training received, may be expected to conduct personal risk assessments.
   Comply with the University’s equal opportunities policy, and use this role to promote equal opportunity wherever possible.
   Responsible for your own health and safety and that of your colleagues, in accordance with the University’s health and safety policy.

**Person specification**

**Qualifications/Professional membership**

**Essential**
1. Hold a Ph.D degree in Robotics, Control or Computer Science related degree.
2.

**Desirable**
1. Qualified publications record in these topics will be preferred.

**Knowledge/Skills/Experience**

**Essential**
1. Understands how to conduct research using appropriate research techniques and implementing new research methods. Can demonstrate a commitment to continually updating knowledge and understanding in field or specialism.
2. Research experience in robot modelling and control, human-robot interaction and collaboration, robotic skill transfer learning, etc.
3. Good knowledge in robotics and control, etc.
4. Proficient in at least one common robotics tool use (e.g., C/C++, Python, MATLAB, ROS/Gazebo, Linux)
5. Possesses effective communication skills in order to communicate research progress and outcomes, orally and in writing to colleagues and other supervisory groups, and at conferences, where appropriate.
6. Be able to create effective working relationships with colleagues and students across the
team/faculty. Is also able to demonstrate an ability to build and participate in internal and external networks in order to enhance individual and UWE profile.

7. Be able to effectively manage own workload, research resources and administrative activities.

**Desirable**

1. Knowledge of machine learning techniques such as statistical models, neural networks.
2. Experience of using real-world/simulated robotic platforms.

**Special conditions**

N.A.

**Health and Safety/Risks**

This post has been identified with the following risks: (activities, hazards or exposures)

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