JOB DESCRIPTION

Job Title:	Postdoctoral Research Associate
Department / Unit:	Department of Computer Science
Job type	Research
Grade:	Grade 7
Accountable to:	Prof Sara Bernardini
Accountable for:	N/A

Purpose of the Post

The position is funded by the two-year Innovate UK grant "Squads of Adaptive Robots (SoAR)", held by Prof Sara Bernardini, in the context of the program "Subsea autonomous systems: next generation technologies". The project will be carried out by a consortium including industry (Sonardyne, Planet Ocean, and HydroSurv Unmanned Survey), research institutes (National Oceanography Centre) and end users (Offshore Renewable Energy Catapult). SoAR is focused on delivering a fundamental shift in the use of marine robotics through the networking of heterogeneous fleets of Autonomous Underwater Vehicles (AUV) and uncrewed surface vehicles overseen by a fleet level autonomy engine capable of adaptive mission planning.

The duties and responsibilities of this post include conducting individual and collaborative research on the themes of the project, developing software based on the needs of the project, writing reports on the advancement of the project, and producing high-quality outputs for publication in high-profile journals or conference proceedings.

Key Tasks

- To independently undertake advanced research in the area of autonomous and intelligent systems, with particular focus on the research project "Squads of Adaptive Robots (SoAR)".
- To produce high-quality research reports and publications as required by the funding body and for dissemination to the wider academic community.
- To develop software based on the need of the research project "Squads of Adaptive Robots (SoAR)".
- To run experiments based on the need of the research project "Squads of Adaptive Robots (SoAR)".
- To collaborate with the other members of the SoAR project, including periodic visits to them and occasional secondments at their offices.

Other Duties
Communication & networking • Develop collaborative research with research colleagues on the project • Communicate conceptual and complex ideas to a variety of audiences using appropriate media and methods • Participate in internal networks as appropriate • Actively develop appropriate external contacts and networks relevant to future collaboration and funding opportunities Decision making, planning & problem solving • Take responsibility for resolving problems affecting the delivery of the research project and planning future research projects that might emerge from the current project. • Develop ideas for generating income, promoting the subject, disseminating, and applying the results of the research project as relevant. • Manage projects relating to own area of research. Analysis & research • Develop research objectives, projects, and proposals. • Conduct individual or collaborative research projects. • Identify sources of funding and contribute to the process of securing funds. • Extend, transform, and apply knowledge acquired from the research project to teaching, research and appropriate external activities • Extend, transform, and apply knowledge acquired from scholarship to teaching, research and appropriate external activities. • Write or contribute to publications or disseminate research findings using other appropriate media. • Make presentations at conferences or exhibit work at other appropriate events. Teamwork, teaching & learning support • Work flexibly and in collaboration with staff in RHUL and other relevant organisations involved in the project Act as a responsible team member, leading where agreed, and develop productive working relationships with others.
Internal and external relationships
The following list is not exhaustive, but the post holder will be required to liaise with: members of the SoAR project, Innovate UK representatives, students, other members of staff within the school/department and College, academics in other institutions and industrial or professional contacts.