



JOB DESCRIPTION

Job Title:	Postdoctoral Research Associate in Artificial Intelligence – Autonomous Systems
Department /Faculty:	Department of Computer Science
Grade:	RHUL 7
Reporting to:	Senior Lecturer

Department Background

The Department, established in 1968 (one of the oldest Computer Science departments in the world), is one of the top departments of Computer Science in the UK. In the most recent Research Excellence Framework (REF 2014), it scored 11th for the quality of our research output, with a third of the publications recognised as world-leading and a further half internationally excellent (87% in total). The Department is home to outstanding researchers in algorithms and complexity, artificial intelligence, machine learning, bioinformatics, distributed and global computing, software language engineering and type theory.

Over the past five years, the department has undertaken an ambitious plan of expansion: fourteen new academic members of staff were appointed, new undergraduate and integrated-master programmes were created, and five new postgraduate-taught programmes were launched. The department is involved in multiple inter/multidisciplinary activities, from electrical engineering to psychology and social sciences.

Job Purpose

The position is funded by the Innovate UK grant "Connect-R - Providing Structure in Unstructured Hazardous Environments" (TS/So17623/1) in the context of the program "Robotics and AI: Inspect, Maintain and Repair in Extreme Environments". The project will be carried out by a consortium including other universities (University of Edinburgh), industry (Barrnon, Tharsus, Jigsaw Structures and Ross Robotics) and end users (UK Atomic Energy Authority). The Connect-R team will develop an industrial-scale, self-building, modular, autonomous robotic solution to provide robotic access to work-sites in hazardous environments such as Nuclear Decommissioning, Oil and Gas, Mining and Space systems.

Key responsibilities and outcomes: (most frequent duties first)

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, and producing high-quality outputs for publication in high-profile journals or conference proceedings. The post requires to participate in project meetings and field studies.

Key Objective:

- To independently undertake advanced research in the area of autonomous and intelligent systems, with particular focus on the research project "Connect-R - Providing Structure in Unstructured Hazardous Environments".
- 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 "Connect-R - Providing Structure in Unstructured Hazardous Environments".

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.

Team work, 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.

Job descriptions should be regularly reviewed to ensure they represent an accurate account of the duties carried out by the post holder. The job description may be altered from time to time at the discretion of the College, and in consultation with the post holder.

PERSON SPECIFICATION

Details on the qualifications, experience, skills, knowledge and abilities that are needed to fulfil this role are set out below.

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Department/Faculty: Department of Computer Science

	ESSENTIAL	DESIRABLE
Knowledge, Education, Qualifications and Training		
PhD in Artificial Intelligence, Robotics or relevant subject areas	X	
Good publication record	X	
International reputation in relevant research field		X
Skills and/or Abilities		
Applied research experience in relevant area	X	
Excellent interpersonal, presentation and communication skills	X	
Proven problem solving skills	X	
Software Development skills	X	
Potential to attract external research funds		X
Experience		
Research experience in Artificial Intelligence, Robotics or relevant subject areas	X	
Experience of qualitative and quantitative research methods and data analysis	X	
Experience in attracting external research funds		X
Other requirements		
Good interpersonal / team working skills	X	

Ability to work and meet deadlines	X	
Proven research potential		X

How to Apply:

Please click the link at the bottom of the advertisement to apply via the Royal Holloway application portal.

Completed applications must be received by 23:59 on the closing date to be considered.

If you have any questions or require any assistance with your application process, please contact Recruitment@rhul.ac.uk

Closing date: 1 March 2019

The University is committed to equality and diversity, and encourages applications from all sections of the community.