Research Fellow in Multi Robot and Multi-Agent Systems, University College London, Department of Computer Science, United Kingdom.

UCL Department / Division
UCL Department of Computer Science

Location of position
London

Grade7

Hours Full Time

Salary
(inclusive of London allowance)£35,328 - £39,353 per annum

Duties and Responsibilities

The Autonomous Manufacturing Lab (AML: aml-ucl.co.uk) explores the integration of collaborative robotic systems into design, manufacturing and collective construction systems. Based in the Department of Computer Science, the lab's aim is to rethink current design and construction processes, increasing productivity and developing novel methods.

Lead and contributing to a multidisciplinary research agenda in multi-robot and multi-agent collaborative robotics research and demonstrators. In includes developing multi-agent programming solutions with a focus on construction and manufacturing orientated tasks.

Applications are invited for Post-doctoral Researcher and Research Assistant positions to conduct applied engineering research in multi-agent software systems for robot collaboration to address challenges within Construction. The role is funded by an EPSRC funded project to develop collective multi-robot off- and on-site autonomous manufacturing systems (gow.epsrc.ukri.org/NGBOViewGrant.aspx?GrantRef=EP/S031464/1). Key attributes include: multi-agent programming, software engineering (proficient in C++, ROS, Python, C#), and experience in methods for decentralised control, distributed networking, communications, multi-modal perception, sensory feedback systems, motion planning, and optimisation modelling.

The primary responsibilities of the role will be to develop multi-agent programming solutions to enable research in multi-robot collaboration for construction and manufacturing orientated tasks. Examples include team-based activity self-determination and self-organization, machine learning and other methods of self-learning and data exchange. These will be implemented on distributed heterogenous mobile robot platforms and utilized within the context of construction and building pre-fabrication demonstrations.

Additional responsibilities include helping to manage the group's experimental activities such as supporting system evaluation studies and maintaining group repositories. It is also expected that the successful applicant can communicate research results through oral presentations in seminars and at leading scientific conferences, written publications in conference proceedings, written publications in leading scientific journals, and proficient in generating academic material. A degree in Computer Science, Robotics or related Engineering fields is required.

This role is available for 24 months in the first instance.

Key Requirements

Knowledge:
- Experience in multi robotic systems research: centralised and distributed systems, multi agent behaviour-based control, distributed computation, networked systems, hierarchical control systems, MRTA (multi robot task allocation), motion planning and machine learning

Skills and Attributes:
- Contributing insights into the wider research programme of the group
- Maintaining group technical research and development policies
- Communicating research findings to a non-specialist audience

Appointment at Grade 7 is dependent upon having been awarded a PhD; if this is not the case, initial appointment will be at Research Assistant Grade 6B (salary £30,922 - £32,607 per annum) with payment at Grade 7 being backdated to the date of final submission of the PhD thesis'.

Candidates with equivalent industry experience will also be considered

Further Details

A job description and person specification can be accessed at the bottom of this page.

To apply for the vacancy please click on the 'Apply Now' button below.

If you have any queries regarding the vacancy or the application process, please contact email v.pawar@ucl.ac.uk.

UCL Taking Action for Equality

We will consider applications to work on a part-time, flexible and job share basis wherever possible.

Closing Date
7 Apr 2019

Latest time for the submission of applications
23:59

Interview date
TBC

Our department holds an Athena SWAN Silver award, in recognition of our commitment and demonstrable impact in advancing gender equality.

This appointment is subject to UCL Terms and Conditions of Service for Research and Support Staff.

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