

Research Role Profile

Job Title:	Research Fellow
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Responsible to:	Principal Investigator
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Responsible for:	Not applicable
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Job Summary and Purpose:

To undertake research in accordance with the specified research project(s) under the supervision of the principal investigator.

Main Responsibilities/Activities

To undertake a range of research activities within a specified research area, assuming responsibility for specific areas of projects and making use of new research techniques and methods, in consultation with the supervisor. This may include laboratory experimentation, critical evaluation and interpretation, computer-based data analysis and evaluation or bibliographic research.

Using initiative and creativity to identify areas for research, develop new research methods and extend the research portfolio. Analysing and interpreting results of own research. Write up results and prepare papers for submission to appropriate journals and conferences, and other outputs as required and/or appropriate. Attend appropriate conferences for the purpose of disseminating research results of personal development. The post holder may also contribute to writing bids for research grants and will contribute to collaborative decision making with colleagues in areas of research.

Continually to update knowledge and develop skills, and translate knowledge of advances in the area into research activity.

To plan and manage own research activity in collaboration with others. To carry out administrative tasks associated with specified research funding, for example risk assessment of research activities, organisation of project meetings and documentation. Implementation of procedures required to ensure accurate and timely formal reporting.

To contribute to teaching in the Faculty by carrying out student supervision and/or demonstrating within the post holder's area of expertise and under the direct guidance of a member of departmental academic staff, as appropriate.

The post holder may occasionally be required to supervise more junior research staff.

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Person Specification

The post holder must have:

A doctoral degree in a relevant discipline (although individuals who have almost completed a doctoral degree may be appointed). Consideration may also be given to individuals who do not hold a doctoral degree but have required skills based on a number of years experience in specified / relevant fields.

The post holder will have authority over some aspects of project work and must be capable of providing academic judgement, offering original and creative thoughts and be able to interpret and analyse results.

Relationships and Contacts

Direct responsibility to the principal investigator or academic supervisor. The post holder may be asked to serve on a relevant Faculty committee. There may be additional reporting and liaison responsibilities to external funding bodies or sponsors. The post holder may work on original research tasks with colleagues in other institutions.

Special Requirements

To be available to carry out experimental work as required by the specified research project, to participate at the meetings as required by the specified research project.

All staff are expected to:

- Positively support equality of opportunity and equity of treatment to colleagues and students in accordance with the University of Surrey Equal Opportunities policy.
- Help maintain a safe working environment by:
 - Attending training in Health and Safety requirements as necessary, both on appointment and as changes in duties and techniques demand
 - Following local codes of safe working practices and the University of Surrey Health and Safety Policy
- Undertake such other duties within the scope of the post as may be requested by your Manager.

Research Role Profile

Addendum to Role Profile

Job Title:	Research Fellow (1A)
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Job Summary and Purpose:

This information sheet should be read in conjunction with the accompanying generic Research RA1A Role Profile and will be used for shortlisting processes. More specifically the post holder will be expected to undertake research in accordance with the specific research project(s) under the supervision of Dr Saber Fallah

Main Responsibilities/Activities

Responsible for the development of predictive fault-tolerant and reconfigurable control systems for autonomous robot systems for space applications (e.g. planetary rover navigation, on-orbit robot systems, and autonomous manipulators).

Also, responsible for supporting a research team by assessing the current state-of-the-art, contributing to the planning of research projects and undertaking prescribed research tasks in accordance with specific research project(s), making use of standard research techniques and methods. These may include fieldwork, interviews, laboratory experimentation, computer-based data analysis or library research as directed by the supervisor/ line manager and will entail co-ordinating own work with that of others to avoid conflict or duplication of effort. Analysing and interpreting results of own research, under guidance of the supervisor. Write up results and contribute to the preparation of high-quality papers for submission to appropriate journals and conferences, and other outputs as required and/or appropriate. Attend relevant conferences for the purpose of disseminating research results of personal development. Participate in exhibitions, demonstrations and outreach events.

Person Specification

The post holder must have:

- A doctoral degree in AI/Machine Learning, Mechatronics, Robotics or a closely related discipline
- Capability of providing academic judgement
- Capability of offering original and creative thoughts
- Ability to interpret and analyse results
- Knowledge in machine learning (SVM, NN, ...) and in reinforcement learning techniques
- Experience in programming (MATLAB, Python, or C++)
- Experience in Robotic Operating System (ROS)
- Experience in software and hardware development
- Self-motivation and capable of working with general supervision

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Relationships and Contacts

Direct responsibility to the academic supervisor (Dr Saber Fallah). There may be additional reporting and liaison responsibilities to external funding bodies or sponsors. The post holder may work on original research tasks with colleagues in other institutions.