

Research Role Profile

Job Title:	Research Fellow B
-------------------	-------------------

Responsible to:	Head of research group, or principal investigator
------------------------	---

Responsible for:	Responsibility for staff within own research group
-------------------------	--

Job Summary and Purpose

To plan and deliver research in accordance with the specified research project. To contribute to securing funding for own research projects and for projects for those staff under their direct supervision.

Main Responsibilities/Activities

To contribute to the development of the research of the Faculty, by planning and carrying out research activity within a specified area, often in collaboration with colleagues.

To take a significant role in planning, co-ordinating and implementing research programmes and, where appropriate, commercial and consultancy activities. To take lead responsibility for a small research project or identified parts of a large project. This may include planning fieldwork, data analysis and evaluation and laboratory experimentation. To make decisions about research programmes and methodologies, often in collaboration with colleagues, and to resolve the problems of meeting research objectives and deadlines.

To develop new concepts and ideas to extend intellectual understanding. Assess, interpret and evaluate the outcomes of research, and develop ideas for the application of research outcomes. To take a role in the regular publication of results in appropriate journals, in giving presentations at national and/or international conferences, and in other outputs as required and/or appropriate.

To develop innovative research proposals (as a self-contained item or as part of a broader programme), identifying sources of funding, submitting funding bids, and gaining positive reviews for these. Promoting own area of research.

Continually to update knowledge and develop skills. To extend, transform and apply knowledge acquired from scholarship to research and appropriate external activities.

To carry out management and administrative tasks associated with specified research funding, including managing and developing staff within their projects; risk assessment of project activities; organisation of project meetings and documentation; management of resources, preparation of annual reports, and management or monitoring of research budgets. To oversee and implement procedures required to ensure accurate and timely formal reporting and financial control.

To undertake liaison with external organisations including equipment manufacturers, steering committees, associated academic facilities and commercial users.

Research Role Profile

To contribute to teaching within the Faculty by carrying out student supervision, demonstrating or lecturing duties within the post holder's area of expertise. May be required to contribute to the supervision of research students.

Person Specification

The post holder must have:

Normally a doctoral degree in a relevant discipline, together with appropriate experience of working in a similar area of work.

The post holder will need to demonstrate a high level of competence and independent standing in research by being nationally recognised within their area of discipline, publishing regularly in recognised appropriate journals and attracting research funding for their own work or for other staff within the research group.

Relationships and Contacts

The post holder may have a key responsibility to the principal investigator, with prime responsibility for reporting and liaison with external funding bodies or sponsors. As a senior member of the project team, the post holder will also supervise the activities of research and technician staff within the particular research group

Special Requirements

To be available to participate in fieldwork 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)

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:

- Support the development of a distributed hardware in the loop testing system
- Development, implementation in real-time units and testing via hardware in the loop and vehicle prototypes advanced powertrain and chassis control algorithms, exploring also the use of AI techniques.
- Enhance a vehicle simulator through the design of surrogate models of electric vehicle components for performance analysis at vehicle level and vehicle control applications
- Develop digital twins of the vehicles' systems and sub-systems

Main Responsibilities/Activities

- To undertake a range of research activities – both, practical and theoretical – focused on the development and implementation of the control algorithms and the simulation/digital twin components. This will include programming, critical evaluation and interpretation of the simulation and experimental results, computer-based data analysis and evaluation or library research.
- Assuming responsibility for research tasks and making use of new research techniques and methods, in consultation with the research team.
- Write up of results and document findings in appropriate formats, including the preparation of papers for submission to relevant journals and conferences, and other outputs as required.
- To carry out administrative tasks associated with the project, for example, risk assessment of research activities, organisation of project meetings and documentation. Implementation of procedures required to ensure accurate and timely formal reporting and financial control.

These duties provide a framework for the post and should not be regarded as a final list. Other reasonable duties may be required consistent with the grade of the post.

Research Role Profile

Person Specification

The post holder must have:

- a doctoral degree in a relevant discipline (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 several years' experience in relevant fields.
- experience with experimental data collection, critical analysis and interpretation of results.
- good time management and planning skills with the ability to meet deadlines.
- good written and verbal communication skills and strong interpersonal skills.

The post holder must be:

- able to work independently.
- capable of providing academic judgement, offering original and creative thoughts and be able to interpret and analyse results.

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 other duties within the scope of the post as may be requested by your Manager.