

Research Role Profile

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| <b>Job Title:</b> | Research Fellow B |
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| <b>Responsible to:</b> | Head of research group, or principal investigator |
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| <b>Responsible for:</b> | Responsibility for staff within own research group |
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| <b>Job Summary and Purpose</b>   |
| 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. |

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| <b>Main Responsibilities/Activities</b>   |
| <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>Continually to update knowledge and develop skills. To extend, transform and apply knowledge acquired from scholarship to research and appropriate external activities.</p> <p>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.</p> <p>To undertake liaison with external organisations including equipment manufacturers, steering committees, associated academic facilities and commercial users.</p> |

## 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

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|-------------------|-----------------|
| <b>Job Title:</b> | Research Fellow |
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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:

Generate new ideas on 6G wireless and networking areas

Carry out fundamental research

Demonstrate performance mathematically and/or via computer simulations

Publish high quality articles in top quartile IEEE conferences and journals

Being able to present the work to technical and less technical audiences.

**Main Responsibilities/Activities**

- To develop new advance algorithms
- To carry out fundamental research in 6G wireless communications and networking
- To generate high quality publications in top quartile IEEE journals
- Present the idea in internal and external meetings
- Write up the ideas for possible patent applications
- Write research proposals

**Person Specification**

**The post holder must have:**

- At least a PhD degree in any of the following areas: Communication information theory, Physical layer, modulation, sensing, coding and information theory, Ultra Massive MIMO, Cell-Free, Large Intelligent Surfaces, Antenna, cloud/edge computing/processing, Artificial intelligence etc...for 6G Mobile/Wireless and satellite communications, systems.
- Strong research profile demonstrated through high quality publications, patents, scientific talks in at least of the above the area(s).
- Experience in at least one of simulation platforms or languages such as MatLab, C, C++, Python
- Knowledge of 4G, 5G and/or satellite communications

**Relationships and Contacts**

Research Role Profile

*Internal*

ICS Academic and Research Staff

Technical and Support Staff within the Faculty of Engineering and Physical Sciences

Academics across the Faculty and University

Postgraduate Research Students

*External*

Industry representatives

Academics in the relevant research fields