

Research Role Profile

Job Title:	Research Fellow B
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Responsible to:	Head of research group, or principal investigator
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Responsible for:	Responsibility for staff within own research group
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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

Research Role Profile

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.

Summary of the project:

The work will involve the use of computer vision and machine learning for the identification, tracking and estimation of humans in video with specific application to the recognition of sign language. But there are also opportunities to contribute to other projects including autonomous robotics, UAVs and autonomous vehicles subject to skill set. The applicant should have a PhD in a related area with a track record of publishing high quality research. Previous experience of sign language recognition and translation would be advantageous as is experience of supervising research. They should have good analytical and programming skills and experience of computer vision and machine learning. Previous experience of real time systems development C/C++/C#, Python, OpenCV, PyTorch, TensorFlow and deep learning are essential. Applicants are expected to be proactive, to support other researchers and to be self-motivated.

More specifically the post holder will be expected to:

- Undertake research relevant to the project.
- Acquire new knowledge and skills as needed across both application areas cited above.
- Co-ordinate and prepare reports and deliverables for the project.
- Attend collaboration meetings.
- Supervise more junior staff and students
- Represent the University of Surrey and research related to the project, at such meetings and relevant conferences/workshops.

In addition to the criteria outlined in the accompanying generic Research B Role Profile, the post holder must have:

- Good communication and organisational skills
- Good programming Skills C/C++/C#/Matlab/Python
- Experience of computer vision and machine learning
- Previous experience of sign language, computation sign language recognition, production and translation
- A track record of publishing high quality research
- Previous experience of PyTorch, TensorFlow, OpenCV and PCL would be advantageous as would a working knowledge of sign language.

Research Role Profile

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.