

Research Role Profile		
Job Title:	Research Fellow A	
Responsible to:	Head of research group, or principal investigator	
Responsible for:	Not applicable	

## **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 research award holder or supervisor. This may include fieldwork, interviews, laboratory experimentation, critical evaluation and interpretation, computer-based data analysis and evaluation or library 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 and financial control.

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.



### **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 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		
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.



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.



### Addendum to Role Profile

## Job Summary and Purpose:

This information sheet should be read in conjunction with the accompanying generic Research Fellow Role Profile and will be used for shortlisting processes. More specifically the post holder will be expected to:

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.

## Main Responsibilities/Activities

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.



# Person Specification

The post holder must have:

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.