

Research Role Profile

Job Title:	Research Fellow A
-------------------	-------------------

Responsible to:	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
<p>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.</p> <p>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.</p> <p>Continually to update knowledge and develop skills, and translate knowledge of advances in the area into research activity.</p> <p>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.</p> <p>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.</p> <p>The post holder may occasionally be required to supervise more junior research staff.</p>

Research Role Profile

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 will also be given to individuals who do not hold a doctoral degree but have required skills based on training and 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

Addendum to Role Profile

Job Title: Research Assistant - Space Radiation and Instrumentation	Research Assistant (1B)
--	-------------------------

<p>Job Summary and Purpose:</p> <p>The Surrey Space Centre (SSC) is a world-leading centre for space radiation and space weather research. SSC is beginning a new project to build airborne (aircraft and balloon-mounted) instruments to measure the radiation fluxes, dose rates and electronic upset/failure rates in the atmosphere due to the influence of galactic cosmic rays and solar-induced ground-level enhancements. The data will be used to validate the MAIRE+ nowcast model recently developed within the group.</p> <p>Hence SSC is looking to recruit a Research Assistant to contribute to the group's work by: a) assisting with the instrument design and engineering, b) using space environment models to assist in design and the interpretation of results; c) provide technical support to the research group for developing other related space-based instruments.</p>

<p>Main Responsibilities/Activities</p> <p>The Research Assistant will:</p> <ul style="list-style-type: none"> • Contribute to the development, build, test and calibration of new instruments for measuring the aviation and space radiation environments: this will cover both hardware and software elements. • Prepare documentation to describe and record the instrument design, build, test and calibration process and to ensure quality and traceability. • Use space environment models to assist in the development and specification of the new instruments and in the analysis of data collected. • Assist in the fitting and deployment of instruments into aircraft, balloons and satellites as required and in the collection of data. • Liaise with project partners including airlines and Met Office: also undertaking outreach at conferences, events and with the general public. • Assist in other space centre activities as required and developing new initiatives in the field

Research Role Profile

Person Specification

The post holder must have:

- A PhD (or soon to be obtained) or equivalent experience gained, for example, in the engineering and technology sector plus suitable training/study
- Knowledge and experience of space radiation environments and the associated physics
- Knowledge and experience of electronic engineering (ideally analogue and digital)
- Good written and verbal communication skills
- A team-oriented approach.

It would also be desirable that the post holder has a broad background knowledge of space engineering, space systems and/or avionics.

Relationships and Contacts

The post holder will report to the Prof. Keith Ryden (k.ryden@surrey.ac.uk), but on a day-to-day basis work they will work closely with the project Research Fellow and engineering-lead Dr Ben Clewer. Interactions with external stakeholders such as the UK Met Office and ESA will be expected.

The post holder will work within the Surrey Space Centre at Guildford. Given the practical nature of the work most time will be spent on campus but there is some opportunity for remote working where agreed.