

Research Role Profile

Job Title:	Research Fellow in Urban Analytics
Responsible to:	Head of research group, or principal investigator
Responsible for:	Not applicable

Job Summary and Purpose

To deliver research in accordance with the specified research project.

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.

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

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. The post holder will also supervise the activities of PhD students 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:

The postholder will join the Geoinformation Lab at the Department of Civil and Environmental Engineering, and work as the primary researcher on two projects: (1) the ESRC funded Designing sponge cities for multiple benefits: integrating natural based solution (DeSCIPHER), and (2) the NERC funded Bayesian approach to complex land use change modelling as part of the Landscape Decisions programme. The DeSCIPHER project is an international project with partners in the UK, Norway and China. Our responsibility is in the analysis of social media data to infer about the use of green urban space in selected case study areas. The second project is about developing robust mathematical approach to the estimation and application of urban change models.

Main Responsibilities/Activities

To undertake a range of research activities within the research area of Urban Analytics in consultation with the research award holder or supervisor. This may include fieldwork, prototype development, critical evaluation and interpretation, data analysis and evaluation of urban system characteristics.

The responsibilities will include:

- Development of integrated Bayesian methods for estimation of Cellular Automata based land use change models

- Review of public data sources on use of green urban space

- Development of spatial interaction models for green urban space

- Programming, testing, validating and evaluating of proposed methods

- Project data management

- Publication in highly ranked journals and conferences

- Contributions to projects and effective collaboration with co-researchers and project partners

- Documentation of project results.

Research Role Profile

--

Person Specification

The post holder must have:

PhD (or be near completion) in a relevant field

Experience with scientific computing in C++, Python, MATLAB or R.

Good mathematical / statistical skills, preferably including Bayesian statistics
--

Experience in geographical information analysis

Relationships and Contacts

Direct responsibility to the principal investigator and working closely with co-investigators. The post holder may be asked to serve on a relevant Faculty committee. There may be additional reporting and liaison responsibilities to project partners. The post holder may work on original research tasks with colleagues in other institutions.
--