

Research Role Profile

<b>Job Title:</b>	Research Fellow (1A)
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<b>Responsible to:</b>	Head of research group, or principal investigator
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<b>Responsible for:</b>	Not applicable
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**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.

## 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 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

## Addendum

<b>Job Title:</b>	GCARE Research Fellow in Air Pollution Control
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**Main Responsibilities/Activities**

**This information sheet should be read in conjunction with the accompanying generic Research Fellow (1A) Role Profile and will be used for shortlisting processes. More specifically the post holder will be expected to:**

- be responsible for **planning, designing and performing the field experimental campaigns and living lab activity** for evaluation of air pollution control interventions and simulating effects of green infrastructural solutions on air quality at neighbourhood scale
- be responsible for assessment of **sensor technologies** and citizen involvement in living labs context, evaluation for matching city needs to **adequate passive control solutions** at neighbourhood scale, and **develop generalised control measures** for urban infrastructure and related decision makes.
- be self-driven and independent enough **to log, clean, share, assess, interpret** the collected data and results to publish in top-ranked journals and write any associated reports.
- be part of a team to interact and manage his/her own research and **work with other team members** of the research group and the **consortium members**.
- be **delivering the tasks with the highest possible quality on agreed time scale**.

## Research Role Profile

### Person Specification

**In addition to the criteria outlined in the accompanying generic Research Fellow (1A) Role Profile, the post holder should have (E = Essential; D = Desirable):**

- PhD degree (or who will receive a PhD degree by 1 September 2017 at the latest) in the fields of civil engineering, environmental engineering/science, computer, chemical engineering, transportation engineering, or related engineering/science disciplines (**E**).
- Expertise in handling air pollution instruments, data collection methods, and its subsequent analysis and interpretation using advanced mathematical/statistical tools such as *R* and MatLab (**D**).
- Proven experience in the area of air pollution monitoring using advanced and low-cost sensors, and knowledge of GIS, dispersion (CFD/ADMS) modelling, health impact assessment and modelling, green infrastructure mapping/modelling or statistical analysis tools (**D**).
- Should be motivated and enthusiastic to work in a multidisciplinary environment and should have experience of communicating findings in top-ranked journal papers and writing associated reports (**D**).
- Prior knowledge of air pollution control assessment (e.g. vegetation barriers, green walls) and low-cost sensor deployment of air pollution is desirable (**D**).

### Special Requirements

None

### Background Information

The *iSCAPE (Improving the Smart Control of Air Pollution in Europe)* project is funded under the “Horizon 2020 Societal Challenges” scheme. It will see next-generation environmental living labs deployed in cities across Europe to improve air quality and reduce carbon footprints. The project aims to integrate and advance the control of air quality and carbon emissions in several European cities. The aim of the project is to develop sustainable and passive air pollution remediation strategies, policy interventions and behavioural change initiatives. The overall goal of *iSCAPE* project is to support sustainable urban development by promoting the sharing of results with policy-makers and planners using local test-cases, and providing scientific evidence ready-to-use solutions.