

Research Role Profile

Job Title:	Research Fellow (1A)
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Responsible to:	Head of research group, or principal investigator
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Responsible for:	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
<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>

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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.

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ADDENDUM

Job Title:	GCARE Research Fellow
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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 the day-to-day management of project activities including measurements, modelling, regular communication, preparing and delivering presentations, reports and project deliverables besides supporting the financial management of the project.
- be responsible for project delivery activities as well as planning, designing and performing the field experimental campaigns and in collaboration with project partners and the GCARE team.
- be responsible for preparing the relevant research proposals with the highest possible quality on agreed time scale.
- 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 agreed tasks with the highest possible quality on agreed time scale.

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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 shortly by December 2024) in the fields of civil engineering, mechanical engineering, environmental engineering/science, data science, computer, chemical engineering, transportation engineering, or related engineering/science disciplines **(E)**.
- Proven experience in the area of air pollution modelling, green infrastructure mapping/modelling, health impact assessment and statistical analysis of big data **(E)**.
- Expertise in handling air pollution instruments, data collection methods, and its handling, subsequent analysis and interpretation using advanced mathematical/statistical tools such as *R* and MatLab **(E)**.
- 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 monitoring/modelling in the context of vegetation barriers and sampling of air pollution is desirable **(D)**.

Special Requirements

The candidate should be motivated and enthusiastic about working in a multidisciplinary environment, with flexibility to adapt to various project/GCARE activities. Experience in team collaboration, public engagement, and working with diverse partners is essential. Strong written and spoken English skills are required, and a UK/EU/international driver's license is preferred.

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Background Information

Project summary:

This post holder will primarily contribute to the GP4Streets project. Depending on the need of existing and new upcoming projects, their time will be split between the various GCARE projects such as NERC-funded GreenCities, UKRI funded RECLAIM Network Plus, Horizon Europe supported HealthySailing, Charity supported Heat-Cool programme, and various consultancy projects.

Building on the £1.45M UKRI's RECLAIM Network Plus, which focuses on green-blue-grey infrastructure (GBGI) implementation in underserved areas, GP4Streets will create tailored do-it-yourself (DIY) GBGI solutions as a "green prescription" for urban streets, allowing them to adapt to their specific environmental challenges posed by a changing climate. This ambition unites a diverse team from five universities (Surrey, Bath, UWE Bristol, Sheffield, Imperial), nine local councils, environmental charities and industrial partners. Collectively, these stakeholders are committed to supporting the co-design, implementation, testing, upscaling, and broader adoption of GBGI solutions. GP4Streets will utilise cutting-edge monitoring and modelling technologies to explore DIY GBGIs' multifaceted benefits. This will be accompanied by delivering the following objectives: (1) co-design of GBGI and public engagement at the household and street levels, (2) advanced numerical modelling of GBGI interventions at local and city scale, and (3) optimise the effectiveness of GBGI performance considering ecological and human well-being. Finally, the scientific evidence derived through the project will be integrated and disseminated via a new decision-making tool allowing stakeholders to identify optimal GBGI solutions and their multiple benefits at street and city level.

The agreed outputs for the above projects are:

- Designing field studies, collecting data, its management and the analysis;
- Interpreting and writing of the data for the presentations, conferences, journal publications and project deliverable reports;
- Attend project meetings to keep the project partners updated;
- Leading the project engagement activities.