

<b>Job Title:</b>	Research Fellow A
<b>Responsible to:</b>	Head of research group, or principal investigator
<b>Responsible for:</b>	Not applicable
<b>Job Summary and Purpose:</b>	
To undertake research in accordance with the specified research project(s) under the supervision of the principal investigator.	
<b>Main Responsibilities/Activities</b>	
<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>	
<b>Person Specification</b>	

**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.

## Addendum

This document provides additional information relating to both specific aspects of the post/faculty and any post specific person specification criteria. The information contained within this document should always be read in conjunction with the accompanying generic Role Profile.

### Job Title:

Research Fellow in LCA and Land use modelling

## Job Purpose and Summary

This post is for a Research Fellow to work on a recently awarded BBSRC project assessing the role vertical farming can play in UK food system resilience, entitled: “*Vertical Farming to Improve UK Food System Resilience (VF-UKFSR)*”. The postholder will be responsible for leading on the development of a land use and land sparing model, underpinned by life cycle assessment data of vertical farms. They will be responsible for liaising with commercial vertical farms in order to understand impacts of producing food in their equipment. They will help define consequential impacts from land use change or sparing which might occur. They will be responsible for providing data to the other work packages to facilitate collaboration across the project, and reporting research findings. They will need to report to supervisors regarding the work being done and to support stakeholder engagement where appropriate. They will be responsible for disseminating findings of the research through various channels (including academic publishing, or public engagement).

## Main Responsibilities/Activities

To play a pivotal role in supporting the PI and co-I’s in the delivery of the work package.

To lead on the development of land use and land sparing models by liaising within the work package, and across work packages within the project.

To collect data relating to life cycle assessment (LCA) of producing food from vertical farming, and wider land use changes.

To develop LCA models and processes using SimaPro software.

To liaise across work packages of the project to ensure a sharing of relevant data as necessary.

To lead on dissemination of learning via various publishing channels, including project reporting, academic publication, or public engagement.

To ensure that appropriate research ethics processes are followed.

To lead on the day-to-day running of the research, including organisation of travel, accommodation, expenses, attendance at team meetings, workshops, and stakeholder management

## Person Specification

This section describes the sum total of knowledge, experience & competence required by the post holder that is necessary for standard acceptable performance in carrying out this role. This is in addition to the criteria contained within the accompanying generic Role Profile.

	Essential/ Desirable
<b>Qualifications and Professional Memberships</b>	
A doctoral degree, or be close to completing a doctoral degree, in the field of environmental science, life cycle assessment, process-based modelling, land use modelling or similar.	Essential
<b>Technical Competencies (Experience and Knowledge)</b>	
Experience with modelling and data analysis.	Essential
Ability with programming languages such as R, Python, C++, Fortran, GIS or other.	Essential
Experience using LCA packages, for example SimaPro.	Essential
Knowledge of crop growth, agronomy and vegetable production	Essential
Track record in using and developing biological process-based models for crop growth and soil biochemistry such as DNDC and/or DAYCENT	Essential
Track record of publishing in academic journals.	Essential
Excellent verbal and written communication skills, with a proven ability to build strong and effective working relationships with internal and external stakeholders.	Essential
Excellent problem solving.	Essential
Experience of planning and conducting research to meet strict deadlines.	Desirable
Experience working in a large, multifaceted team with tight deadlines.	Desirable
Knowledge of renewable electricity generation and systems.	Desirable

## Background Information

This should be read in conjunction with those contained within the accompanying generic Role Profile.

## Special Requirements

Ability to travel for project meetings, visits to site partners etc. both in the UK and abroad

## Background information

The Centre of Environment and Sustainability (CES) is an internationally-acclaimed centre of excellence on sustainable development, at the core of the pan-university Institute for Sustainability.

Working together, CES and the Institute are driving the University's research and innovation in priority areas of sustainability research. Through inter- and transdisciplinary collaborations across faculties, and business and external partner engagement, we are breaking new ground to produce world-class research and effecting significant change for the long-term wellbeing for all.

The postholder will work under the leadership of Dr Zoe M Harris and Dr James Suckling.

**N.B. The above list is not exhaustive.**