CANDIDATE BRIEF

Research Fellow in Decision Making under Deep Uncertainty, Faculty of Environment

Salary: Grade 7 (£33,797 – £40,322 p.a.)

Reference: ENVEE1411

Fixed-term for 18 months

We will consider job share / flexible working arrangements

Research Fellow in Decision Making under Uncertainty Modelling
School of Earth and Environment, Faculty of Environment

Are you an ambitious researcher looking for your next challenge? Do you have a background in decision making under deep uncertainty? Do you want to further your career in one of the UK's leading research-intensive Universities?

Making decisions under conditions of deep uncertainty is a crucial challenge in transitioning to more sustainable and resilient infrastructure. This research will demonstrate how adaptive decision-making approaches can help practitioners navigate a wide range of uncertainties and support the transition to a more sustainable transport system.

You will participate in a six-year EPSRC-funded research project, Multi-Actor Adaptive Decision Making (MAADM). MAADM aims to understand how to make better decisions to transform infrastructure systems, taking into account deep physical and social uncertainties and the fact that multiple actors must make decisions and interact to deliver system transformation. A core part of the MAADM project is an in-depth case study, working with project partners to apply and develop adaptive decision-making approaches and modify partner appraisal processes. Under this post, you will test and refine decision making under deep uncertainty (DMDU) approaches (such as dynamic adaptive decision policy pathways and robust decision making), with a real case study in regional transport planning.

You will have a PhD or near completion in decision making under deep uncertainty. Any additional experience in transport sector modelling would be an advantage. You will also have experience of working with stakeholders to co-produce knowledge. Additionally, to work effectively in a collaborative team environment, you should have excellent communication and interpersonal skills. The role would suit an individual with interest in applying DMDU techniques to sustainable transport planning.

What does the role entail?

As a Research Fellow, your main duties will include:
- Applying and testing decision making under deep uncertainty (DMDU) approaches, with a real case-study in regional transport planning;

- Further developing and evaluating DMDU approaches so that they can be employed by transport practitioners;
- Generating and pursuing independent and original research ideas in the appropriate subject area;
- Developing research objectives and proposals and contributing to setting the direction of the research project and team including preparing proposals for funding in collaboration with colleagues;
- Preparing papers for publication in leading international journals and disseminating research results through other recognised forms of output;
- Working both independently and also as part of a larger team of researchers, engaging in knowledge-transfer activities where appropriate and feasible;
- Maintaining your own continuing professional development and acting as a mentor to less experienced colleagues as appropriate;
- Contributing to the training of both undergraduate and postgraduate students, including assisting with the supervision of projects in areas relevant to the project.

These duties provide a framework for the role and should not be regarded as a definitive list. Other reasonable duties may be required consistent with the grade of the post.

What will you bring to the role?

As a Research Fellow you will have:
- A PhD or near completion (i.e. the initial thesis needs to have been handed in at the point of application) in decision making under deep uncertainty or a closely allied discipline;
- Demonstrable experience in applying DMDU methods;
- Strong analytical skills with experience of innovative quantitative analysis and application to complex cases;
- Experience of working effectively with public and private sector stakeholders to co-create research;
- Good time management and planning skills, with the ability to meet tight deadlines, manage competing demands and work effectively under pressure without close support;
- A proven track record of peer-reviewed publications in high impact factor journals;

- Excellent written and verbal communication skills including presentation skills;
- A proven ability to work well both individually and in a team;
- A strong commitment to your own continuous professional development.

You may also have:
- Experience of pursuing external funding to support research;
- In-depth knowledge of the UK transport sector, including national, regional and local transport policy and transport systems across road, rail and active travel infrastructure;
- Experience of using or developing transport system models and appraisal tools, such as the National Transport Model, Regional Traffic Models and WebTAG;
- Experience of agent-based modelling.

How to apply

You can apply for this role online; more guidance can be found on our How to Apply information page. Applications should be submitted by 23.59 (UK time) on the advertised closing date.

Contact information

To explore the post further or for any queries you may have, please contact:

Dr Katy Roelich, Associate Professor in Decision Making under Deep Uncertainty
Tel: +44 (0)113 343 2656
Email: k.e.roelich@leeds.ac.uk

Additional information

Find out more about the Faculty of Environment.

Find out more about our School of Earth and Environment

Find out more about Equality in the Faculty

A diverse workforce

The Faculty of Environment has received a prestigious Athena SWAN silver award from Advance HE, the national body that promotes equality in the higher education sector. This award represents the combined efforts of all schools in the Faculty and shows the positive actions we have taken to ensure that our policies, processes and ethos all promote an equal and inclusive environment for work and study.

Working at Leeds
Find out more about the benefits of working at the University and what it is like to live and work in the Leeds area on our Working at Leeds information page.

Candidates with disabilities
Information for candidates with disabilities, impairments or health conditions, including requesting alternative formats, can be found on our Accessibility information page or by getting in touch with us at disclosure@leeds.ac.uk.

Criminal record information

Rehabilitation of Offenders Act 1974
A criminal record check is not required for this position. However, all applicants will be required to declare if they have any 'unspent' criminal offences, including those pending.

Any offer of appointment will be in accordance with our Criminal Records policy. You can find out more about required checks and declarations in our Criminal Records information page.