UNIVERSITY OF LEEDS

CANDIDATE BRIEF

Research Fellow in Urban Flood Resilience, Faculty of Engineering

Salary: Grade 7 (£32,004 – £38,183 p.a.)

Reference: ENGCV1059

Closing date: 16 July 2017

Fixed-term for two years

Research Fellow in Urban Flood Resilience
School of Civil Engineering

Are you an enthusiastic and experienced researcher in water engineering and flood risk management with an interest in sustainable and resilient system designs and evaluation? Are you looking for a new and exciting challenge as part of a world class urban flood resilience team? Do you want to help design systems to deliver affordable urban flood resilience at the city, regional and national scales?

You will join the EPSRC funded research programme 'Urban Flood Resilience in an Uncertain Future' and will become a key member of this multidisciplinary Consortium that spans nine UK Universities. The project focuses on how planning, design, operation and organisation of both existing and new urban water systems must be re-envisaged and transformed to achieve multiple benefits. This includes working with natural processes and effective stakeholder engagement, including occasional travel to case study locations (UK), study sites (Newcastle and Ebbsfleet) and to relevant international research centres.

You should have a PhD in a relevant scientific, engineering, economic or other numerate discipline, with a relevant and continuous track record in independent research design and application. You will develop and implement new approaches to designing and evaluating sustainable drainage systems that improve the integration of urban flood risk management and water, energy and transport infrastructure and expanded inter-operability of urban systems-of-systems.

What does the role entail?

As a Research Fellow, your main duties will include:

- Investigating the potential for interoperable designs solutions in infrastructure flood risk management using a 'system of systems' approach; providing design, evaluation and appraisal expertise for decision making on resilient water systems under future climate and socio-economic uncertainties;
- Developing an integrated evaluation and assessment tool for innovative interoperable designs taking account of multiple dimensions of value across water and infrastructure systems;
- Aiding design for the integration of Blue/Green and Grey (B/G+G)

infrastructure systems that support resilient management of both water quantity and quality;

- Reviewing UK evaluation and assessment approaches (i.e. infrastructure and flooding) for novel interoperable designs;
- Providing input and assistance for the overall Consortium objectives;
- Publishing high-quality journal papers and producing summary outputs for multiple audiences and Consortium members;
- Maintaining and managing your own continuing professional development and act as a mentor to less experienced colleagues as appropriate.

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 soon to be awarded) in a relevant scientific, engineering, environmental, economic or other numerate discipline;
- Experience in the design and implementation of system evaluation/appraisal and decision making frameworks using quantities and qualitative techniques. For example, for infrastructure resilience, environmental management, or urban planning;
- Excellent interpersonal skills suitable for leading the design of interoperable interventions; liaising with a range of stakeholders from a range of disciplines and sectors including local government, civil society, professional bodies and community representatives;
- Evidence of the ability to conduct high quality research that encapsulates multiple disciplines (e.g. economics, social science, engineering environmental science);
- Experience of organising and coordinating activities within interdisciplinary consortia and liaising with key stakeholders, and willingness to travel to case study locations (UK), study sites (Newcastle and Ebbsfleet) and to relevant international research centres;
- A proven track record of producing both peer-reviewed publications and technical reports;
- Excellent written and verbal communication skills, including presentation skills;

- A proven ability to work well both as individual and as team, demonstrating both initiative and creativity;
- Excellent time management and planning skills, with the ability to meet tight deadlines, manage competing demands, and work effectively under pressure;
- A strong commitment to your own continuous professional development.

You may also have:

- An in-depth understanding of UK flood risk management, blue/green and grey infrastructure treatment trains and sustainable urban drainage systems;
- Experience in modelling/evaluating system interactions across multiple scales (micro-macro) using relevant software;
- Experience in contributing to grant proposals for the successful allocation of research funding.

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 David Dawson, Early Career Research Fellow, School of Civil Engineering
Tel: +44 (0)113 343 32279
Email: d.a.dawson@leeds.ac.uk

Additional information

Faculty and School Information
Further information is available on the research and teaching activities of the Faculty of Engineering and the School of Civil Engineering.

A diverse workforce
The Faculty of Engineering is proud to have been awarded the Athena Swan Silver Award from the Equality Challenge Unit, the national body that promotes equality in

the higher education sector. Our equality and inclusion webpage provides more information.

Working at Leeds
Find out more about the benefits of working at the University and what it's 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