Candidate Information

Position:	Research Fellow, Climate Adaptation Control Technologies for Urban Spaces
School/Department:	Environmental Change and Resilience
Reference:	19/107945
Closing Date:	Monday 9 December 2019
Salary:	£33,797 per annum.
Anticipated Interview Date:	Wednesday, 18 December 2019
Duration:	24-month project running from 1 January 2020 to 31 December 2021

JOB PURPOSE:

Outstanding applicant is sought for the post of Postdoctoral Research Associate, to be employed by the School of Built and Natural Environment, Queen's University Belfast, who will carry out high-quality laboratory-based research. The task is to investigate novel composite barrier systems that use the subsurface soil in a sustainable way to provide enhanced water holding capacity and act as a barrier to water ingress and egress, while supporting vegetation growth. The post is funded by a Engineering and Physical Sciences Research Council grant (EP/R005834/1) Climate Adaptation Control Technologies for Urban Spaces (CACTUS)•, which is a collaborative project led by Durham University, with University of Cardiff, University of Dundee, Imperial College London, Queen's University Belfast and Newcastle University. The project as a whole aims to develop climate adaptation composite barriers to protect our infrastructure in urban spaces (towns and cities), by combining water holding layers and a capillary barrier. Such barriers can provide resilient solutions to protect geo-infrastructure from more intense precipitation events and more extremes of wetting and drying that are expected to result from climate change. The technologies proposed are intended to protect geo-infrastructure such as shallow foundations, retaining walls and buried utilities.

MAJOR DUTIES:

1. Perform high quality research in the bespoke research project under the guidance of the supervisory team (Dr Sivakumar).
2. Meet the members of the supervisory team on a regular basis.
3. Participate in the activities of the project, as specified in the Grant Agreement.
4. Write up the results of the research activity and disseminate the research findings at workshops, meetings and conferences, as advised by the supervisors.
5. Widen personal knowledge in the research area and undertake complementary training.
6. Assist with convening project meetings and other aspects of project management.
7. Candidates must have capacity for and be progressing towards the independent development of internationally excellent research that produces high-quality outcomes, including some work that is recognised as world class.

ESSENTIAL CRITERIA:

1. Have obtained a PhD in geotechnical engineering.
2. 3 years' demonstrable Knowledge of laboratory test methods in geotechnical engineering (unsaturated soils).
3. A track record of authoring high quality academic publications.
4. A strong desire to collaborate proactively with project partners and non-academic stakeholders.
5. Experience, skills and/or achievements that demonstrate (experience of or) the potential to participate in the collegial/administrative activities of an academic department notably related to their research and/or the research and research environment of the department.
6. Candidates must have excellent oral and written communication skills with the ability to engage with a range of students and colleagues across a variety of forums.

DESIRABLE CRITERIA:

1. Familiarity with unsaturated soil mechanics.
2. Experience of multidisciplinary and team working.