JOB DESCRIPTION

Vacancy reference:	SRF23874
Post Title:	Postdoctoral Research Assistant
Grade:	Grade 6
School/Department:	School of the Built Environment
Reports to:	Dr Zhiwen(Vincent) Luo
Responsible for:	

Purpose

We are seeking to appoint an outstanding Postdoctoral researcher with expertise in multi-scale urban climate modelling to join our NERC-funded research project COSMA to understand the overheating risk and heatwaves in South Asian counties using Sri Lanka as a case study. The main goal of the work will be to undertake multi-scale climate modeling (urban and building scales) and overheating risk mapping. The post will be based in the School of the Built Environment, but working closely with Department of Meteorology, University of Reading, UK, and will involve working oversea Co-Is and partners.

Main duties and responsibilities

- Contribute to the modelling, evaluation, application and analysis of urban atmosphere exchanges (e.g. sensible heat, latent heat flux and air temperature, thermal comfort, overheating risk) using urban land surface models (e.g. SUEWS, JULES/MORUSES, SLUCM, BEP/BEM, etc) offline and online.
- Conduct the multi-scale urban climate modeling combining urban climate model with building physical models such as Energy+/IES, etc
- Develop GIS overheating risk/mitigation potential maps to be used by local government and professional bodies
- Organize stakeholder workshops to engage local partners
- Effectively communicate and collaborate with project partners to facilitate cross disciplinary research with the international and interdisciplinary partners
- Lead/participate literature reviews
- Prepare papers and reports to achieve milestones and deliverables (journal articles, conference presentations, materials for workshops etc), often with tight deadlines in collaboration with project partners

Supervision received

The post reports to project PI Dr Zhiwen (Vincent) Luo from School of the Built Environment and Co-I Prof Sue Grimmond from Meteorology both at the University of Reading, who will oversee the overall research. The post-holder will also benefit from working with experts in different disciplines including meteorology architecture, planning, engineering and social science within the research team.

Supervision given

Opportunities for supervision of postgraduate students and for teaching within the department will be provided to support the post-holders staff development.

Contact

In addition to the day to day contact with team members, academic and departmental staff, the post holder will liaise with a wide range of University departments (Finance, HR etc) and external bodies within the scope of this role. In particular this will include those involved in the other urban meteorology and climate projects, field sites in London, and other stakeholders in other cities (UK and internationally)

Terms and conditions

Full time and fixed term of 22 months

This document outlines the duties required for the time being of the post to indicate the level of responsibility. It is not a comprehensive or exhaustive list and the line manager may vary duties from time to time which do not change the general character of the job or the level of responsibility entailed.

Date assessed:

PERSON SPECIFICATION

Job Title	School/Department
PDRA	**Built Environment**

Criteria	Essential	Desirable
Skills Required	• Excellent computing and data management skills • Good oral presentation skills • Excellent written English	• Programming in R, MATLAB, Python, and/or Fortran • Familiar with running WRF and/or the UM for urban climate modeling • Experience of using building energy simulation models • Familiar with GIS software
Attainment	• PhD in a relevant discipline (meteorology, physical geography, engineering, construction, physics etc) • Atmospheric and/or Environmental science (or engineering)	
Knowledge	• Advanced knowledge on urban meteorology • Advanced knowledge on building-urban physics	• Outdoor thermal comfort • Environmental physics • Building environmental engineering
Relevant Experience	• Data processing of observational or modelled data sets • Experience with working other disciplines effectively • Preparation/publication of peer reviewed journal papers • Conference presentations • Preparation of literature reviews	• Experience with managing projects • Experience with organizing research meeting and workshops
Disposition	• Work well with others and independently • Excellent problem solver • Ability to communicate and work with project participants and stakeholders • Work well to deadlines •	

Completed by: Dr Zhiwen Luo	Date:12/07/2018