University of Reading

JOB DESCRIPTION

Vacancy reference:	SRF28884
Post Title:	Post-doctoral Research Scientist in Analysis of Forecasts of High-Impact Weather
Grade:	Grade 6
School/Department:	Department of Meteorology
Reports to:	Dr Chris Holloway
Responsible for:	None

Purpose

The post holder will carry out research evaluating the skill and uncertainty of deterministic and ensemble model forecasts of high-impact weather over Southeast Asia as part of the multi-institute Forecasting for Southeast Asia (FORSEA) project within the Met Office led Weather and Climate Science for Service Partnership for Southeast Asia (WCSSP Southeast Asia), supported by the UK Government's Newton Fund. The post holder will be based within the Department of Meteorology at the University of Reading.

Main duties and responsibilities

The post includes analysis of real-time global Met Office ensemble forecast simulations of high-impact weather in Southeast Asia to quantify uncertainty and evaluate forecast skill. There will also be evaluation of added value from state-of-the-art high-resolution convective-permitting ensemble simulations that are nested within the global ensemble members. There will be extensive interaction with other members of the project to incorporate process evaluation and case study analysis in order to inform forecasters, model developers and other stakeholders.

The post holder will:

- Carry out research on characterisation of ensemble forecast statistics and evaluation of probabilistic forecast skill in ensemble simulations of high-impact weather in Southeast Asia.
- Quantify added forecast value associated with convective-permitting ensembles.
- Contribute towards joint work package analysing cases of high-impact weather in Southeast Asia and using these to develop guidance for forecasters and model developers.
- Report on research at scientific conferences, FORSEA and WCSSP Southeast Asia project meetings, and in the peer-reviewed literature.

Supervision received

The successful candidate will report to Dr Chris Holloway, with co-supervision from several other academic staff members at the University of Reading.

Supervision given

None, but the post holder will have the opportunity to co-supervise undergraduate students and MSc students for their dissertation projects.

Contact

The successful applicant will be based at the Department of Meteorology on the UoR Whiteknights campus. The post holder is expected to liaise and work closely with team members in the FORSEA WCSSP Southeast Asia project based at the University of Leeds and the University of East Anglia. There will also be collaboration with scientists at the Met Office who work on WCSSP Southeast Asia and who contribute towards development and analysis of model forecasting systems.

Case study analysis will require collaboration with Southeast Asian partners in National Meteorological Services and Universities in Malaysia, Indonesia and the Philippines. Collaboration will be through a mixture of teleconferencing and travel to partner institutes in both the UK and Southeast Asia. The post-holders will be expected to travel to Southeast Asia for research collaboration and to attend project meetings.

Terms and conditions

Fixed Term for up to 20 months, full time.

The end date is fixed at 31st March 2021, but the post start date will be negotiated: the earliest start date will be 1st August 2019, but this could also be up to several months later depending on the applicant's circumstances and other factors. The post holder will be resident in the UK for the entire period of this contract. There are no specified hours of work, but you will be required to work such hours as are necessary to carry out the duties associated with the post. Overtime is not payable.

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
Post-doctoral Research Scientist in Analysis of Forecasts of High-Impact Weather	**Meteorology**

Criteria	Essential	Desirable
Skills Required	• Good written and oral communication skills • Good scientific computing skills • Scientific data analysis and interpretation	
Attainment	• PhD in a mathematics or physics based science or equivalent research experience • An appropriate publication record for career level	• A PhD in meteorology or atmospheric physics
Knowledge	• Weather Forecasting • Atmospheric processes related to rainfall • Numerical weather prediction verification metrics	• Ensemble Prediction • Tropical Meteorology • Weather Radar remote sensing
Relevant Experience	• Experience in manipulating large data sets for scientific analysis • Experience of presenting to expert and non-expert audiences	• Experience with meteorological data sets • Experience collaborating with remote partners
Disposition	• Ability to work independently and as part of a team. • Willingness to travel to partner countries. • Proactive in developing collaborations.	
Other		

Completed by: Chris Holloway	Date: 02/05/19