

JOB DESCRIPTION

Vacancy reference:	SRF26777
Post Title:	Post-Doctoral Research Assistant (PDRA) for Smarter Data management in Earth-Science
Grade:	Grade 6
School/Department:	School of Mathematical Physical and Computational Sciences (SMPCS)/Computer Science
Reports to:	Line manager
Responsible for:	Members of staff this person line manages

Purpose

This is a post-doctoral research role to contribute to and develop the research work on the project ESiWACE, the Centre of Excellence in Simulation of Weather and Climate in Europe. The main goals of the ESiWACE project are to:

- (1) Enable leading European weather and climate models to leverage the available performance of pre-exascale systems with regard to both compute and data capacity in 2021.
- (2) Prepare the weather and climate community to be able to make use of exascale systems when they become available.

Efficient data management is a key for the effective simulation and the main concern of this job offer. In the project, we will develop and extend data management tools that provide an efficient usage of a heterogeneous storage landscape and deploy them on production systems.

As part of the project, we have started to build a middleware to manage data more intelligently, this RD&E is continued as part of this job. Note that the second phase of EsiWACE will be funded as a follow up of this project, which will allow the candidate to apply for a follow up position.

Main duties and responsibilities

Research:

- Undertake research under the supervision of the Principal Investigator
- Carry out independent research and supervise the work of research assistants
- Contribute to the writing of papers for publication in leading academic journals and other relevant media
- Disseminate research findings and establish a national reputation through participation in national conferences, exhibitions etc.
- Implement research methodologies that add to knowledge and understanding appropriate to the discipline
- Collaborate with colleagues within the University in the development of original research
- Provide specialist advice to other staff and students within the University
- Use initiative and creativity to synthesise, analyse and interpret research data

Supervision received

Post reports to Dr. Julian Kunkel. He will provide detailed guidance on work to be undertaken within the project. However, the researcher is also expected to work independently and with initiative.

Supervision given

To student research assistants.

Contact

There will be frequent contact with the European project partners working on the ESiWACE project.

Terms and conditions

Full-time (35 hours per week). This is a 5 month fixed term contract.

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:

18/12/2018

PERSON SPECIFICATION

Job Title	School/Department
Post-Doctoral Research Assistant (PDRA) for Smarter Data management in Earth-Science	SMPCS / Computer Science

Criteria	Essential	Desirable
Skills Required	<ul style="list-style-type: none"> • Experience of Linux environment • Programming in C • Good written and oral skills 	<ul style="list-style-type: none"> • Scientific background
Attainment	<ul style="list-style-type: none"> • PhD (or working towards completion) in relevant subject or discipline • A good honours degree in relevant subject • Appropriate publication record for career level 	
Knowledge	<ul style="list-style-type: none"> • Knowledgeable of storage systems or data management 	<ul style="list-style-type: none"> • Scientific computing background • Domain knowledge: Earth-Science / Weather / Climate
Relevant Experience	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • Experience of working on EU project(s) • Experience of working on research project funded by industry or public entity
Disposition	<ul style="list-style-type: none"> • Team worker – working alongside team, academic and commercial partners to achieve goals within tight time constraints • Is a good communicator 	
Other	<ul style="list-style-type: none"> • Writing of research reports and deliverables in a timely manner and in collaboration with Principal Investigator and junior researchers 	
Completed by: Dr. Julian Kunkel		Date: 18/12/2018