JOB DESCRIPTION

Vacancy reference:	SRF29656
Post Title:	Laboratory and Fieldwork Research Support Scientist
Grade:	5
School/Department:	Department of Meteorology, SMPCS
Reports to:	Academic lead for the Meteorology department laboratories
Responsible for:	n/a

Purpose

Provide technician support for funded research projects and other research-related activities within the Department of Meteorology (https://www.reading.ac.uk/met/). You will be engaging with world-renowned research groups to ensure that their technical support needs are met.

Main duties and responsibilities

- Provide day to day oversight of research laboratories and related resources within the Meteorology department (in liaison with Technical staff supporting the department) to ensure the facilities support the needs of researchers in developing novel research outcomes.
- Maintain the research laboratories to ensure that the associated research materials, samples and equipment are maintained appropriately. In addition, to manage the outsourcing of tasks, as required, to external companies and service providers and to oversee purchasing and supply of parts and equipment, liaising with suppliers and academic staff to establish technical details and specifications.
- Monitor the equipment and environment and take appropriate corrective actions to maximise performance, including local fault finding, liaising with external engineers, troubleshooting and organising service and repair by external contacts.
- To make regular contact with external experts and suppliers to enable the provision of expert advice in current developments in the field with regards to new specialist equipment, procedures, quality assurance and where applicable legislation.
- Devise and carry out specialist tests/experiments/technical procedures in the field or in the lab experiments, including using instruments with data logging capabilities.
- Obtain a wide range of data from research equipment, interfacing with computers as necessary and developing software interfaces using a range of methods
- In keeping up with current literature, to apply in-depth specialist knowledge and experience of a particular research field to initiate and develop advances, design of new apparatus or methods and novel techniques that contribute to significant developments in research. This may also involve operation, troubleshooting and maintenance of highly specialised models and/or equipment and providing design input to electronic, software and mechanical aspects of research equipment (dependent on the post-holder's skill set).
- Identify and be willing to support academic staff in preparing funding applications for enhancing lab facilities.
- Interface with others to ensure that developments (e.g. instrument design, new systems) and data collection (etc) are successful

- To work in accordance with University Health and Safety guidelines and to fulfil roles such as fire warden or first aider as required
- Any other duties as defined by the line manager that do not change the general character of the job or the level of responsibility entailed

Contact

Technical staff within the University's technical services team based both in the Meteorology department and elsewhere, academic staff and PhD students in Meteorology, commercial clients, external suppliers, executive support team. The postholder will also have interaction with research groups (PhD students, Postdoctoral Research Assistants (PDRAs) and Principal Investigators (PIs).

Terms and conditions

This is a fulltime (36 hours per week) fixed term position.

There may be a requirement for working during weekends and University closure periods and some UK and overseas travel will be expected to support research activities by arrangement (note that given the unexpected nature of fieldwork some travel may be requested at short notice).

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.

PERSON SPECIFICATION

Job Title	School/Department
Laboratory and Fieldwork Research Support Scientist	**SMPCS/Meteorology**

Criteria	Essential	Desirable
Skills Required	• Ability to use software for gathering data from instruments (LabView, Campbell Scientific Software, Testpoint, or development of own programs) • Ability to provide design input to electronic, software and/or mechanical aspects of research equipment (dependent on skill set) • Problem solving to setup, identify issues and maintain environmental measurements • Ability to devise and carry out specialist tests /experiments / technical procedures in experiments or with measurement and data logging equipment • Ability to obtain a wide range of data from research equipment, interfacing with computers as necessary, using a range of methods • Ability to solve a range of technical and instrumental measurement problems by responding to varying circumstances with imaginative approaches • Good interpersonal skills with ability to proactively work with others to achieve outcomes • Ability to seek and to clarify complex issues in writing and/or verbally • Able to work with research staff and students, explain complex technical issues and procedures and provide assistance where necessary. • Ability to plan and organise resources to time and quality standards	• .Familiarity with Microcontrollers (e.g. Arduino systems) for measurement and data logging applications • Awareness of meteorological instrumentation and their interfacing requirements for long-term use • Able to program and use the Campbell data logger family • Familiarity with digital imaging technology and its use in experimental work • Able to provide day to day oversight of research laboratories and related resources within the Meteorology department. • Able to assist in the effective organisation of non-standard tasks and events (e.g. science workshops, visits, media activities and outreach demonstrations) • Able to present findings accurately in formal or informal contexts

Attainment	• Skill level equivalent to achievement of HND, NVQ4 , undergraduate degree (or equivalent experience) in engineering, physics or physical geography or a closely related subject. • Instrumentation skills • Expertise in at least one of (i) mechanical engineering, (ii) electronics, or (iii) software packages for engineering (e.g. CAD systems for mechanical and electronic design) • A demonstrated commitment to Continuing Professional Development	• Experience with Inventor, Target 3001, Picbasic, PSpice. • Experience with scripting, python,R language
Knowledge	• Knowledge of environmental sciences, engineering or meteorological research or equivalent • Sufficient knowledge to identify gaps in health and safety and quality compliance and propose solutions. • Sufficient knowledge to identify problems, generate original ideas and solutions and advise on the development and application of specialist techniques and/or procedures and on the analysis and interpretation of results. • To apply technical, specialist knowledge to solve complex, non-routine problems	• Knowledge of Python or another programming language • Knowledge of Arduino or Raspberry Pi systems • Appreciation of fundamental concepts in fluid mechanics • Experience of writing and evaluating risk assessments
Relevant Experience	• Extensive technical work experience, acquired in relevant roles and job-related training • Experience of using software for gathering data from instruments (LabView, Campbell Scientific Software, Testpoint, or development of own programs) • Experience of working with relevant equipment and advising and assisting on its development, construction, assembly and application, e.g. specialist research equipment and workshop tools, equipment under the management of others • Working with care, precision and accuracy to ensure correct	• Experience of information and measurement technology used in research and other laboratories • Experience of meeting the needs of collaborators, staff or students • Awareness of calibration cycle requirements of laboratory instruments • Experience of contributing to project management and working effectively with external contractors and agencies

	operation of relevant equipment and procedures. • Experience of developing an understanding of long-standing and complex problems, applying professional knowledge and experience to troubleshoot and solve them • Proven experience of planning and progressing work activities within broad professional guidelines and/or broad organisational policy • Experience of managing outsourcing of tasks, as required, to external companies and service providers	
Disposition	• Commitment to the values and professional behaviours of the University. • Willing to travel in the UK and overseas to work at field sites • Flexibility with working hours	
Other		• Driver's license

Completed by: Professor Keith Morrison	**Date:** 16.7.19