

POSITION DESCRIPTION



Senior Technical Support Officer, Field Based Research Facilities



POSITION DETAILS

Position Title	Senior Technical Support Officer, Field Based Research Facilities
Classification	HEW Level 6
Position Number	7005628
School/Office	Teaching & Research Technical Services
Division	DVC Education & Students

POSITION PURPOSE

The Senior Technical Officer (Field-Based Research Facilities) is part of the Sustainability and Environmental Science team, providing technical expertise to field-based climate change research facilities that support agricultural, ecological and climate change research at the Hawkesbury Institute for the Environment (HIE), Hawkesbury Campus.

The appointee will oversee daily field operations, including the installation, calibration, maintenance and troubleshooting of environmental sensor systems and associated data platforms across facilities such as Pastures and Climate Extremes (PACE), Cumberland Plains Supersite eddy covariance tower (FLUX), Rainout Shelters and Whole Tree Chambers. Responsibilities include supporting research teams with system setup and instrumentation, managing data acquisition and quality assurance, and assisting with data workflow development. The role supports externally funded research programs in soil science, plant physiology, agricultural technologies and climate change research. They ensure that equipment and facilities are operational and are adequately and safely used and maintained.

While the position is part of Sustainability and Environmental science team, the appointee, may also be required to provide technical support to other teams within the Institutes cluster, dependent on operational requirements to ensure the highest quality level of technical service is provided to students and researchers.

KEY ACCOUNTABILITIES

1. Operate, install, calibrate and maintain environmental sensors, analytical equipment and instrumentation, including demonstration of safe and proper use of equipment, troubleshooting and repair.
2. Configure and integrate environmental sensor systems with data logging and backup platforms, ensuring reliable data capture and storage on institutional data repositories.

3. Collect, download and process data from research facilities, undertake quality control and preliminary analysis, and provide verified datasets to research clients.
4. Monitor and maintain field facility systems, mechanical infrastructure and sensor networks, maintaining daily operational logs to confirm system performance, operational readiness and continuity.
5. Assist research clients with the design and implementation of field experiments and provide advanced analytical and technical support as required.
6. Assist research clients in the collection, curation and analysis of data from field experiments. These data may include environmental parameters (e.g., temperature, light, atmospheric carbon dioxide concentrations and soil water content), growth metrics (e.g. biometry, biomass) or gas exchange fluxes (e.g. leaf photosynthesis, plant or soil or ecosystem fluxes of greenhouse gases).
7. Assist research clients in monitoring and maintaining the integrity of experiments in field climate change facilities, such as identifying and reporting operational risks to environmental treatments or experimental material (e.g., condition of plants and plots, pest or disease incidence, mortality).
8. Participate and contribute to continuous improvement initiatives across technical operations, including cross-campus projects and service enhancements.
9. Ensure compliance with Work Health and Safety requirements through audits, documentation management and the delivery of site inductions for staff and students.
10. Provide technical advice to the Field Facilities Manager and Senior Technical Coordinator regarding capital equipment procurement, including specification development, supplier liaison and quotation review to support cost-effective purchasing decisions.

QUALIFICATIONS, EXPERIENCE AND SKILLS

1. Tertiary degree qualification in a relevant discipline (e.g. Environmental/Agriculture Engineering, Electrical Engineering, Environment, Ecology or Agriculture) or an equivalent combination of relevant experience and/or education/training.
2. Familiarity with instrumentation associated with environmental research systems, including sensors, data loggers, infrared gas analysers, light, temperature and soil sensors.
3. Demonstrated ability to use programming languages such as R and/or Python to assess and ensure data quality and visualize large datasets, and familiarity with other statistical software programs used in environmental research.
4. Strong problem-solving, planning and time management skills, with the ability to identify issues, prioritise tasks, and effectively manage competing demands.
5. Hold a current work at height certification, or willingness to work at heights and undertake training to obtain a Statement of Attainment for Working at Height recognised under the Australian Qualifications Framework.
6. Strong problem-solving and planning skills – Ability to analyse issues, prioritise tasks, and manage competing demands effectively.
7. Clear communication and organisational skills – Strong written and verbal communication, with the ability to document procedures and coordinate multiple tasks efficiently.

KEY RELATIONSHIPS

- **This position reports to:** Senior Technical Coordinator, Sustainability and Environmental Science.
- **This position supervises:**
 - Nil supervision
- **Key internal relationships:**
 - Technical Manager, Institutes
 - Technical Manager, Field Based Research Facilities

- Senior Scientific Advisor for Eddy Flux & Experimental Climate Facilities
- Other technical team members across the function
- School or Institute staff, both Academic and Professional
- Students
- **Key external relationships:**
 - Suppliers of goods and equipment, contractors and key stakeholders

CHALLENGES

1. The role supports research facilities utilised by staff and students. Responding to evolving staff and student needs and expectations requires adaptability and good communication skills.
The role can be physically demanding. It supports outdoor facilities, and you must be able to climb a 30m tall radio mast (with climbing gear) and trouble-shoot problems with equipment at the top of the mast. The position also requires walking into the site at least weekly (about 1 km from a paved road) for regular checks.
2. Maintaining research facilities and instrumentation to a high standard so researchers have confidence in the accuracy, reliability and usability of data and equipment
3. Managing variable and unpredictable field conditions that can impact system performance, data quality, and day-to-day operations.
4. Ensuring effective communication and collaboration with diverse stakeholders (researchers, students, technicians, external partners) while coordinating technical support across multiple projects.

UNIVERSITY EXPECTATIONS

The University expects that all employees are aware of, and comply with legislation and Western's policies and procedures relevant to the position, including but not limited to:

- Code of Conduct
- Work Health and Safety and Wellbeing Management System
- Enterprise Agreement or Award
- Anti-discrimination principles, Equal Employment Opportunity and staff and student equity.

BUSINESS UNIT EXPECTATIONS

Teaching & Research Technical Services (TRTS) conducts its operations on a number of campuses and whilst employees are primarily located on one campus, they may be required to work at and travel between any of these locations for set periods of time to meet operational needs.

Hours of work for employees in TRTS may vary due to operational requirements in supporting teaching classes or research projects. As such the ability to work to a roster between the hours of 7am - 10pm Monday to Sunday may be required.

Approved by: Office for People

Date: 05.03.2026