TECHNICAL OFFICER (FIELD WORK)

DEPARTMENT/UNIT Civil Engineering
FACULTY/DIVISION Faculty of Engineering
CLASSIFICATION HEW Level 5
DESIGNATED CAMPUS OR LOCATION Clayton campus

ORGANISATIONAL CONTEXT

Monash is a university of transformation, progress and optimism. Our people are our most valued asset, with our academics among the best in the world and our professional staff revolutionising the way we operate as an organisation. For more information about our University and our exciting future, please visit www.monash.edu.

The Faculty of Engineering is one of the largest in Australia, renowned worldwide for the quality and calibre of our teaching, research and graduates. We offer a comprehensive range of undergraduate, graduate, postgraduate and higher degree by research programs in a wide range of engineering disciplines. Our research activities provide a platform for establishing a thriving educational enterprise and our staff are committed to creating a dynamic learning environment. The research activities range from fundamental studies to research with a strong applications orientation. To learn more about the Faculty of Engineering, please visit our website.

The Department of Civil Engineering aims to provide high quality education, research and professional services globally for the mutual benefit of the students, the staff, the University, industry, the profession and the wider community. We offer several undergraduate and postgraduate coursework degrees. The Department actively pursues innovative and significant multi-disciplinary research to address the challenges for engineering in the 21st century. For more information about us and the work we do, please visit our website.

The department has three main research themes including 7 areas of research focus (see http://www.eng.monash.edu/civil/research/) and its Water Group is one of the leading water research groups in Australia. It has strong collaboration across its three campuses including Clayton Australia, Sunway Malaysia and Suzhou China. According to the 2022 Academic Ranking of World Universities, Monash was ranked 80th in general, 43rd in Civil Engineering, 42nd in Water Resources and 36th in Remote Sensing in the world. Details on our state-of-art facilities can be found at https://www.monash.edu/engineering/departments/civil/research/our-facilities. The
Department is looking to build on existing research strengths particularly in the areas of environmental remote sensing and/or modelling with a focus on areas such as flooding, droughts and ecohydrology.

The University’s strategic plan for 2021-2030 (Impact 2030) is “focused on addressing the challenges of the age for the betterment of our communities, both locally and globally”, actively addressing those challenges in collaboration with government, industry and the community. The water group is well positioned to advance the core goals identified in IMPACT 2030, through excellent research and education, the international reach of its activities and its strong record of developing enduring alliances and partnerships with industry, government and other organisations. More specially, climate and environmental challenges are largely driven by water and directly affect the future of society. Nevertheless, the magnitude of such challenges implies that no single field of research or profession can tackle them alone.

**POSITION PURPOSE**

The living laboratory, remote sensing laboratory and associated fieldwork projects encompass a range of disciplines: engineering, geography, environmental science and science.

The needs of the laboratory are therefore diverse, ranging from fieldwork to the development of laboratory test apparatus, undertaking experiments/field trials, data collection and analysis.

The Technical Officer provides a highly skilled technical and mechanical support service to ensure that the needs of the teaching, research, contract research and consulting programs of the department and its associate research centres are met.

The position requires travel to remote field sites alone for extended periods, including installation and maintenance of specialist environmental sensing equipment ranging from soil moisture sensors to eddy covariance towers.

**Reporting Line:** The position reports to the Civil Technical Manager under general direction

**Supervisory Responsibilities:** Not applicable

**Financial Delegation:** Not applicable

**Budgetary Responsibilities:** Not applicable

**KEY RESPONSIBILITIES**

1. Assist with the conduct of experiments, research, field work trials and/or studies through: storing and managing data, specimens, samples, chemicals and other materials according to standards and protocols, setting up specialised equipment for a range of experiments, maintaining an inventory of all equipment and materials, replenishing supplies, safely disposing of hazardous materials and overseeing the upkeep of a safe and tidy work environment

2. Provide guidance and advice and/or training to clients, staff, students and other stakeholders in the area of service or technical expertise, including use of equipment and compliance with standard operating procedures

3. Maintain up-to-date knowledge of new methodology, equipment, technology and data management in the field of specialisation

4. Identify, document and resolve issues associated with the conduct of research or technical services including escalation of more complex issues as required

5. Participate in and implement continuous improvement activities relating to project, research or technical procedures and quality assurance standards

6. Comply with all Occupational Health and Safety (OHS) instructions, policies and procedures and take steps to identify, eliminate and/or escalate OHS risks where appropriate
7. Maintain open and effective channels of communication with colleagues, clients and other stakeholders to facilitate efficient conduct of research or technical processes

8. Other duties as directed from time to time

**KEY SELECTION CRITERIA**

**Education/Qualifications**

1. The appointee will have:
   - A tertiary qualification in science or engineering; or
   - a relevant trade certificate with subsequent post qualification experience in an experimental material testing research environment; or
   - substantial relevant skills and work experience in environmental monitoring; or
   - an equivalent combination of relevant experience and/or education/training.

**Knowledge and Skills**

2. Demonstrated knowledge and high-level proficiency in the use/application/preparation of specialist environmental sensing equipment

3. Background knowledge in a science/chemistry/physics/electronic/programming related field

4. Sound analytical, technical and data analysis skills and a demonstrated capacity to apply effective technical methods, processes and systems

5. Strong organisational skills, including the ability to set priorities, manage time and plan work to meet deadlines

6. Ability to develop basic operating procedures and provide oversight, guidance and training in relation to technical processes and use of specialised equipment

7. Ability to work as an effective member of a team as well as independently under general supervision

8. Strong attention to detail and accuracy and ability to adhere to protocols, standards and guidelines, including ethical research principles as required

9. Well-developed communication skills, including the ability to draft a range of documentation

10. Experience with research or laboratory technology including equipment and software or a demonstrated ability to quickly adapt to and learn new systems

11. Experience in undertaking experiments / field trials, data collection and analysis

12. Experience with environmental technologies including equipment and materials, and undertaking standard testing techniques, along with a demonstrated ability to quickly adapt to and learn new systems

**OTHER JOB RELATED INFORMATION**

- Travel to other campuses of the University and/or remote field sites for extended periods may be required
- There may be a requirement to work additional hours from time
- There will be significant field work requiring overnight to several weeks at a time
- There may be peak periods of work during which taking of leave may be restricted
- Shift work, overtime and out of hours work (including evenings, weekends and public holidays) will be required
- On-call (including rostered on-call requirements) may be required
This position will involve travel to various locations, some of which are not easily accessible via public transport.

GOVERNANCE

Monash University expects staff to appropriately balance risk and reward in a manner that is sustainable to its long-term future, contribute to a culture of honesty and integrity, and provide an environment that is safe, secure and inclusive. Ensure you are aware of and adhere to University policies relevant to the duties undertaken and the values of the University. This is a standard which the University sees as the benchmark for all of its activities in Australia and internationally.