

POSITION DESCRIPTION

Technical Officer in Civil Engineering

Reports to:	Technical Manager
Division:	STEM - School of Engineering Technical
Tenure:	Permanent
Location:	Frankton satellite laboratory and Hamilton campus
Date:	October 2025

Vision

Ko te tangata

A research-intensive university providing a globally connected, innovative and inclusive student experience in an environment characterised by a commitment to diversity, respect for Indigenous knowledge, and high levels of community engagement.

Values

Ko te mana o Te Whare Wānanga o Waikato ka herea ki tō tātou:

- Tū ngātahi me te Māori
- Mahi pono
- Whakanui i ngā huarahi hou
- Whakarewa i te hiringa i te mahara

The University of Waikato places a high value on:

- Partnership with Māori
- Acting with integrity
- Celebrating diversity
- Promoting creativity

1. GENERAL

The Division of STEM comprises three Schools, (Computing and Mathematical Sciences, Engineering and Science) and several research units, including the Artificial Intelligence Institute and commercial/equipment units.

School of Engineering (Te Kura Mata- Ao) offers accredited BE(Hons) degree programmes in Chemical & Processing Engineering, Civil Engineering, Electrical and Electronic Engineering, Environmental Engineering, Materials & Process Engineering, Mechatronic Engineering, Mechanical Engineering, and a graduate diploma in Engineering Management. The School of

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Engineering also offers both taught and research Masters as well as PhDs. Research and development strengths are in, construction, infrastructure and structural engineering energy, water, automation, robotics, sensing, electrical power systems, biomedical engineering and materials.

2. POSITION PURPOSE

To provide high quality technical support for teaching programmes, external contracts, research and commercial activities associated with Civil Engineering in the School.

3. ACCOUNTABILITY

The Technical Officer is responsible to the Technical Manager of the School of Engineering.

4. FUNCTIONAL RELATIONSHIPS

Internal: Dean of School of Engineering
Technical Manager
Academic staff/ Programme leaders
Technical staff
Postgraduate/graduate students
Undergraduate students
Services staff
Administrative staff

External: Contractors and Suppliers - sourcing, ordering and maintaining equipment, consumables and other items as required
Clients - commercial requests, collaborative projects and equipment use

5. KEY RESPONSIBILITIES

Technical and Laboratory Support

- Deliver high-quality technical support for teaching, research, and commercial activities, ensuring equipment and systems function reliably.
- Assemble and operate structural test rigs, hydraulic systems, and servo-controlled actuators in support of experimental and instructional needs.
- Manufacture custom components using conventional engineering methods, based on project specifications and project needs.
- Organize and coordinate laboratory activities to ensure timely execution, resource availability, and alignment with teaching and research schedules.
- Conduct testing of structural elements in accordance with relevant standards and safety protocols.
- Maintain a tidy, well-organised, and safe laboratory environment to support efficient workflows.

Instrumentation and Data Support

- Provide technical expertise for graduate and staff research projects, including the setup and operation of instrumentation and data acquisition systems.
- Set up, calibrate, and maintain a range of instrumentation including strain gauges, load cells, LVDTs, accelerometers, and pressure sensors.
- Operate and troubleshoot data acquisition systems, diagnosing and resolving technical issues across equipment, instrumentation, and software platforms to ensure accurate, reliable data collection and minimise disruption.

- Analyse experimental data using tools such as Excel and MATLAB to support research and teaching outcomes.

Team Contribution and Continuous Improvement

- Work effectively as a member of the School of Engineering to support other team members and provide support and/or coverage of functions.
- Work collaboratively to encourage transparency across activities, open sharing of knowledge, and the building of positive relationships to support a high-performance culture.
- Actively contribute to the ongoing development and improvement of systems and processes.
- Work with other team members on projects.
- Support a positive culture and morale.

Health, Safety and Compliance

- Act as Laboratory Safety Supervisor for designated lab and project spaces, ensuring compliance with University health and safety policies.
- Compile and maintain standard operating procedures (SOPs) and hazard registers for equipment and processes.
- Maintain a safe and healthy work environment for all users, fostering strong safety awareness and best practice.
- Contribute to the development and implementation of School and University occupational health and safety (OHS) initiatives and guidelines.

Other Duties

- Any other duties as required that are consistent with the position held, other than in exceptional circumstances such as rehabilitation after injury or sickness.

NOTE: Staff have an annual Objectives, Development and Reflection (ODR) meeting with their manager.

6. PERFORMANCE STANDARDS

The Technical Officer will be performing satisfactorily when:

- Teaching, research, and commercial activities are effectively supported and run as planned.
- The Technical Manager is well supported.
- Projects are implemented successfully.
- Lab teaching programmes run smoothly and deliver quality outcomes.
- Timely and accurate technical advice is provided.
- Equipment and materials are maintained to high standards and available when needed.
- Equipment and techniques are used correctly, safely, and consistently by all users.
- SOPs meet School and University requirements.
- Equipment life cycles are monitored, and future needs are planned.
- The School and University are positively represented.
- Safe work practices comply with policies, standards, and legal obligations.

PERSON SPECIFICATION

EDUCATIONAL QUALIFICATIONS

Essential

- A relevant tertiary qualification.

Desirable

- A relevant engineering trade qualification.

SKILLS, KNOWLEDGE and EXPERIENCE

Essential

- Demonstrated industry experience in civil or heavy engineering environments.
- Proficient ICT skills.
- Solid knowledge of health and safety requirements, including risk assessment and compliance.
- Skills in trouble shooting and problem solving.
- Solid manufacturing skills.
- Ability to work to deadlines and a high level of independence.
- Excellent oral and written communication skills.
- Full New Zealand driver's license.
- Understanding of load rigging, lifting safety, and equipment limitations.
- Experience working at heights and with scaffolding systems.
- Forklift license.

Preferred

- Assembly of large-scale test rigs, reaction frames, and fixtures.
- Experience operating data acquisition systems and performing basic data analysis.
- Workplace First Aid Certificate.
- Experience in general laboratory practices supporting teaching and research activities.
- Proficiency in CAD software.
- Knowledge of mechanical property testing for various materials.
- Site management and supervision experience.

PERSONAL QUALITIES

- Ability to work with a diverse group of people and to work as part of a team.
- Attention to detail.
- Willingness to learn and develop technical skills as directed.
- Passion for helping students succeed in their academic studies and knowledge, as the next generation of engineers.
- Reliable, conscientious, adaptable and a positive attitude.
- Commitment to a culture of openness, flexibility and co-operation to achieve excellence in academic programmes, research and service.
- Commitment to equal opportunity and to the University's partnership with Māori as intended by the Treaty of Waitangi.