POSITION DESCRIPTION

Senior Technical Officer

Position Summary

The Senior Technical Officer contributes to the output of the School of Electrical Engineering & Telecommunications through the development, maintenance and efficient day-to-day management of teaching and research equipment, infrastructure and services in the Electrical Engineering Laboratories. The Technical Officer/Senior Technical Officer will identify research and teaching requirements, facilitate commissioning and maintaining of specialised equipment, and manage user access and training across these two areas, with a particular focus on the Power Electronics and Drives related laboratories.

With a strong focus on Workplace Health and Safety, the Senior Technical Officer has an active role in compliance and WHS requirements, initiating and managing WHS activities and developing and implementing policies and procedures in collaboration with the HSE Advisor, specifically with respect to dangerous goods and hazardous substances.

The role of Senior Technical Officer reports to the Senior Technical Manager and has no direct reports.

Accountabilities

Specific accountabilities for this role include:

Level 7

• Provide support for School teaching laboratories and facilities.
• Assist with the maintenance, benchmarking, trouble-shooting and repair work on a wide variety of equipment and infrastructure in undergraduate teaching laboratories.
• Provide assistance to postgraduate, HDR students with their research projects.
• Liaise with equipment manufacturers and suppliers of consumables.
• Assist users with purchasing items for research work.
• Provide support for research activities in several electric power engineering laboratories.
• Conduct laboratory safety and compliance checks, on a monthly basis for laboratories assigned to the position.
• Manage specific power engineering laboratories and other assigned undergraduate and postgraduate laboratories.
• Provide assistance to other clients including consultants using laboratories and equipment;
• Ensure up-to-date knowledge of new technology and equipment available to be able to provide advice the academic staff for teaching and research purposes.
• Document all repair and project work with reports, updates to manuals and related documents as necessary.
• Align with and actively demonstrate the UNSW Values in Action: Our Behaviours and the UNSW Code of Conduct.
• Cooperate with all health and safety policies and procedures of the University and take all reasonable care to ensure their actions or omissions do not impact on the health and safety of others at the University, plus ensure that work for which they are responsible is carried out in ways which safeguard the health and safety of staff or students in their charge, including contractors whom they may engage.

At Level 8, in addition to the above:

• Provide expert technical guidance on experiments for postgraduate and HDR students.
• Provide high-level technical support to the teaching and research projects in power electronics, digital grid, renewable energy system, new battery testing facility, drone lab, Power System Simulator RTDS Lab
• Support industry projects such as the design and development of prototypes and translate research and idea into new or improved products.
• Provide support for collaborative projects with other schools.
• Complete maintenance, benchmarking, trouble-shooting and repair work for more advanced technical problems within the laboratory.
• Develop, implement and manage maintenance, repair and installation projects, including coordination and oversight of external contractors.
• Develop, implement and manage continuous improvement projects to enhance laboratory efficiency.
• Contribute to infrastructure development planning.

Selection Criteria:
Level 7

• Relevant tertiary qualification in Electrical or Electronics Engineering or a related area, or an equivalent combination of education, training and experience within a tertiary education or research environment.
• At least 3 years relevant experience in providing technical support in an academic research environment.
• Demonstrated experience and ability to design and build electronic circuits, interpret circuit diagrams, and to diagnose and repair faults in electronic circuitry at the component level.

• Demonstrated advanced computer hardware and software skills, including interfacing and software-based instrument control, PLCs and SCADA systems.

• Excellent communication skills.

• Demonstrated ability to produce detailed technical documentation.

• Demonstrated ability to work independently as well as contribute to technical support within a team environment.

• Knowledge of health and safety responsibilities and commitment to attending relevant health and safety training.

• Knowledge of equal opportunity principles in a diverse, multi-cultural environment.

At Level 8, in addition to the above:

• Minimum 5 years of relevant experience.

• Demonstrated advanced skills in areas such as power engineering or power electronics hardware and/or software, computing, measurement and instrument control.

• Demonstrated experience and ability to design and build electrical devices and electronic circuits, interpret circuit diagrams, and to diagnose and repair faults in electrical circuitry at the component level.

• Strong project management skills demonstrated by the successful completion of complex technical projects.

• An understanding of and commitment to UNSW’s aims, objectives and values in action, together with relevant policies and guidelines.

• Knowledge of health and safety responsibilities and commitment to attending relevant health and safety training.

Desirable Criteria

• Current driver’s licence is desirable but not essential.

• Basic workshop/mechanical skills would be desirable.

• Experience providing responsive technical support in an academic research environment.

PROGRESSION STATEMENT

The incumbent will normally be expected to have reached the top step of level 7 prior to progression to level 8. Criteria for progression to level 8 will be based on satisfactory performance of all duties and accountabilities at level 7 and a demonstrated capacity to take on the duties and accountabilities of the position at level 8.

About this document

This Position Description outlines the objectives, desired outcomes, key responsibilities, accountabilities, required skills, experience and desired behaviours required to successfully perform the role.

This template is not intended to limit the scope or accountabilities of the position. Characteristics of the position may be altered in accordance with the changing requirements of the role.