



|                  |                                                  |
|------------------|--------------------------------------------------|
| DIVISION/FACULTY | DEPARTMENT: Electrical Engineering (Electronics) |
|------------------|--------------------------------------------------|

|                                                  |                             |
|--------------------------------------------------|-----------------------------|
| POST: Part-time Electronics Labs Assistant<br>X2 | POST N°:<br>PEROMNES GRADE: |
|--------------------------------------------------|-----------------------------|

|                  |
|------------------|
| JOB DESCRIPTION: |
|------------------|

### Key Performance Areas

Key performance areas include, but are not limited to:

- Prepare, set up, and maintain laboratory equipment, workstations, and practical facilities to ensure that laboratories are ready and functional for scheduled teaching and learning activities.
- Assist with the development, upgrading, modification, and adaptation of laboratory setups to support practical experimentation, demonstrations, student projects, and new curriculum requirements where applicable.
- Maintain, inspect, test, and troubleshoot laboratory equipment and electronic systems, identifying faults and assisting with repairs or escalating complex technical issues where necessary.
- Ensure the proper upkeep, cleanliness, organisation, and general functionality of laboratory facilities, including workstations, tools, equipment, and storage areas.
- Assist students during practical sessions and project-based learning activities, providing appropriate technical guidance on the use of laboratory equipment, electronic components, software, and prototyping tools.
- Support lecturers and academic staff during practical classes, demonstrations, experiments, and laboratory-based teaching activities.
- Assist lecturers during practical assessments and evaluation sessions, including preparation of equipment and workstations, verification of practical setups, and ensuring that the required resources are available.
- Maintain accurate and up-to-date records of equipment usage, faults, damages, repairs, maintenance activities, consumables, and other relevant laboratory activities.
- Maintain appropriate records of practical experiments and assessments, including equipment/setup requirements, student practical activities, and assessment-related documentation where required.
- Monitor laboratory equipment, tools, components, and consumables, identifying shortages or replacement requirements and assisting with stock control and procurement processes.
- Ensure compliance with laboratory safety procedures, including the safe use, storage, and handling of electronic equipment, tools, electrical equipment, soldering equipment, chemicals, and other laboratory resources.
- Assist with the maintenance and safe operation of prototyping and manufacturing equipment, where available, including 3D printers, CNC machines, and related equipment.
- Assist with the installation, configuration, updating, and basic troubleshooting of laboratory computers and relevant engineering software used for practical teaching and student projects.
- Support the implementation of new practical experiments, projects, and laboratory activities as directed by the relevant academic department.
- Provide technical support during laboratory activities and respond proactively to equipment or facility-related issues to minimise disruption to teaching and learning.

- Perform other laboratory-related technical duties as reasonably required by the department, consistent with the responsibilities of the position.

## APPLICATION CRITERIA:

### Qualification

- Advanced Diploma / BTech in Electrical Engineering: Electronics Engineering, or an equivalent qualification.
- BEng in Electrical and Electronic Engineering, Electronics Engineering, or an equivalent qualification.

### Experience

- A minimum of one (1) year of experience as a technician or laboratory assistant in an institution of higher education, or two (2) years of relevant professional industrial technical experience.
- Experience in conducting practical laboratory sessions with students.
- Previous tutorial experience will be an advantage.
- Demonstrated evidence of successful teamwork and collaboration.
- Practical experience in electronics, basic circuit design, and electronic circuit assembly.
- Practical understanding of PCB development, schematic capture, PCB layout, and etching processes.
- Hands-on experience in soldering, drilling, component placement, wiring, testing, and assembling electronic circuits.
- Experience in Arduino-based project development and prototyping will be an advantage.
- 

### Software Proficiency

Working knowledge of:

- Circuit simulation software, with SiMetrix experience preferred.
- Microsoft Excel, including data processing, calculations, plotting, and basic data analysis.
- KiCad for schematic capture and PCB layout/design.
- Arduino IDE for basic to intermediate microcontroller programming.
- Basic programming knowledge, preferably C/C++.
- Ability to install, configure, troubleshoot, maintain, and update relevant laboratory software and computer systems.

### Technical Skills and Competencies

- Strong foundational knowledge of electronics and basic circuit design.
- Competency in Arduino-based project development, prototyping, and troubleshooting.
- Basic understanding of embedded systems and microcontroller-based applications.
- Familiarity with PCB schematic capture, PCB layout, fabrication, and etching processes.
- Practical competence in soldering, drilling, wiring, component assembly, and electronic circuit testing.
- Ability to perform basic fault-finding and troubleshooting of electronic circuits and laboratory equipment.
- Ability to maintain soldering stations, laboratory tools, safety equipment, and electronic consumables.
- Familiarity with laboratory safety protocols, safe handling of electronic equipment, tools, chemicals, and electrical equipment.
- Ability to monitor laboratory equipment and report faults or maintenance requirements.
- Ability to manage stock levels and coordinate or assist with the procurement of electronic components, tools, equipment, and consumables.
- Ability to assist with the preparation, setup, and maintenance of practical laboratory sessions.
- Ability to support students during practical activities and provide basic technical guidance.

### General Skills and Competencies

- High level of discipline, reliability, and professional conduct.
- Excellent verbal and written communication skills, including report writing.
- Good interpersonal and communication skills.
- Ability to work collegially and effectively as part of a multidisciplinary team.
- Good organisational and time-management skills.
- Strong problem-solving and critical-thinking skills.
- Proactive approach to maintaining laboratory functionality and readiness.
- Strong safety-conscious attitude and attention to detail.
- Ability to work independently and take responsibility for assigned tasks.

**CLOSING DATE FOR APPLICATIONS: 4 November 2026**

Applications should include:

1. A fully completed prescribed application form, which can be obtained from [www.vut.ac.za](http://www.vut.ac.za)
2. A detailed curriculum vitae (explicitly stating experience or knowledge in the fields as mentioned above)
3. Certified copies of all academic records and certificates/degrees
4. Certified copy of ID
5. Current contact information of referees
6. Please email applications to [recruitment3@vut.ac.za](mailto:recruitment3@vut.ac.za) and quote the post reference and post description in the subject line.
7. No manual applications will be accepted. Incomplete applications or applications without the application form and required documents will be disregarded.
8. Only applications made on our application for employment form would be considered.
9. Communication will be entered into with short-listed candidates only. If you don't hear from VUT within 6-8 weeks, deem your application as unsuccessful.

Enquiries may be directed to: Ms Angie Mabona

Contact details: [angie@vut.ac.za](mailto:angie@vut.ac.za) / 016 950 9452

**Please Note: Submission of such copies entitles Vaal University of Technology to authenticate the qualifications without any further consent from the applicant. Candidates with foreign qualifications must submit a SAQA certificate of evaluation. Vaal University of Technology is an equal opportunity and affirmative action employer committed to implementing its employment equity plan. People from designated groups are encouraged to apply. Only shortlisted candidates will be contacted.**

VUT reserves the right not to make an appointment

By applying for this position, you agree to share your information with the selection panel or the relevant people involved in the recruitment process.

