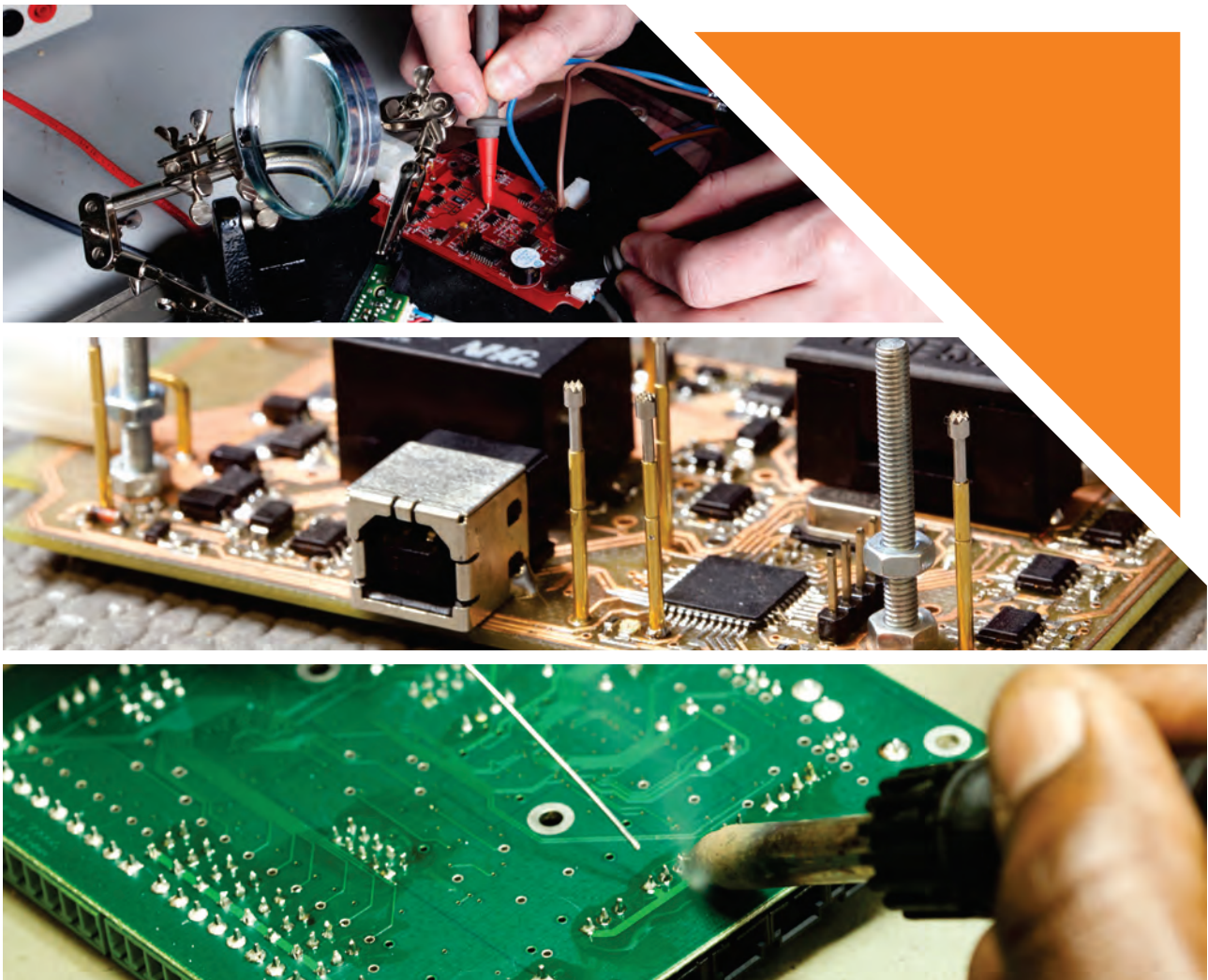


# TECHNOLOGY STATION IN ELECTRONICS (TSE)

The Technology Station in Electronics (TSE) is situated at the Tshwane University of Technology (TUT), operates in the Electronic, Electrical and information and communication technology industries. The TSE collaborates with various academic departments within the Faculty of Engineering and the Built Environment to fulfil its mandate.

The Technology Station is primarily a technology platform where clients can come for expert advice, product development and low volume manufacturing services. In 2004 TSE implemented a state of the art electronic manufacturing platform that allowed the TS to assemble electronic products for small business clients who were unable to wait for long periods of time or who weren't satisfied with quality levels of their current manufacturers.

This was later expanded to include a team consisting of a number of electronics, mechatronics, industrial and mechanical specialists who are able to take a new concept a client might have and design the product the way the client envisioned. This allowed the Station to not only design products, but to be able to also manufacture the products in small quantities to allow clients' businesses to grow and enter new markets with their products. Today the Station performs a wide variety of services that target a number of sectors in mining, automotive, rail, military, energy, etc.



# TECHNOLOGY STATION IN ELECTRONICS (TSE)

## TECHNOLOGY COMPETENCIES AND OFFERINGS

Development expertise include, but are not limited to:

- 8/16/32 Bit Microcontroller Technologies
- PGA Design
- GPS Technologies
- GSM Technologies
- Wireless Transceiver Technologies
- Various Sensor and Actuator Technologies

### Electronic Development

Needs analysis and specification development  
Schematic development  
Printed circuit board design  
Prototyping and testing  
Existing product line improvement  
Electronic Development Services (EDS)

The main focus of the EDS is on innovation through design, prototyping and development of electronic hardware, which includes the design and development of new products from initial concept to production readiness.

### Electronic Manufacturing

Low volume manufacturing  
Prototyping (once-off build)

### Electronic Manufacturing Services

The TSE utilises state of the art equipment to manufacture high quality and reliable products for clients using several manufacturing processes and technologies. The Electronic Manufacturing Services (EMS) is executed by experienced and trained staff.

### Training

Short Learning Programmes  
Customised training programmes

## CONTACT DETAILS

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