

PRODUCT AND SERVICES

Technology services and support systems have been developed that incorporate future orientated knowledge management systems. The support system has enhanced the efficiency of the Technology Station to give technology based services to Entrepreneurs, SMEs, large corporations and relevant industrial sectors.

SERVICES OFFERED AT PEETS INCLUDE:

- Engineering consultation
- Technology audits and feasibility studies
- Test and analysis services relating to:
 - Energy auditing
 - Waste auditing
 - Resource Efficient and Cleaner Production audits, including waste characterization and formulation
 - Biofuel laboratory testing and analysis
 - Water quality testing and analysis
 - Air quality auditing, impact reporting and management, including baseline air quality assessments; dispersion modelling, (AERMOD and CALPUFF); atmospheric emission licensing (AEL) application; stack monitoring; ambient dust monitoring; greenhouse gas reporting; and noise monitoring and impact assessments
 - Fleet performance assessment and real-world emission testing
- Environmental impact assessment
- Applied development, engineering, and design services
- Product and process development, improvement, and optimisation
- Contracted Research and Development (R&D)
- Prototype development, manufacturing and assembly
- Technology demonstration and training



UNIVERSITY OF JOHANNESBURG

PROCESS, ENERGY AND ENVIRONMENTAL TECHNOLOGY STATION (UJ PEETS)

Establishing a **vibrant green circular economy** that continually drives South Africa's equitable **socio-economic success**.



PROCESS, ENERGY AND ENVIRONMENTAL TECHNOLOGY STATION

The Process, Energy and Environmental Technology Station (UJ PEETS) was established in 2010 under the support of the University of Johannesburg, TIA and DSI.

The primary mandate for UJ PEETS is to contribute towards improving the competitiveness of industry and SMEs through the application of specialized knowledge, technology and facilitating the interaction between industry (especially SMEs) and academia to enable innovation and technology transfer to grow the circular green economy.

TECHNOLOGY STATION PROGRAMME

UJ PEETS is part of the Technology Stations Programme (TSP). It was established to enable Universities to provide technology development services to small and medium enterprises. The Technology Stations provide innovative Science, Engineering and Technology solutions for complex engineering challenges within the relevant industrial sectors aimed at supporting government's socio-economic priorities. There are 18 Technology Stations based at 11 Higher Education Institutions in South Africa, managed by the TSP Unit based in Pretoria at the TIA office.



VISION

To be a leading Technology Station that stimulates and supports technological innovation in a vibrant, circular green economy towards equitable socio-economic success in the 4th Industrial Revolution



MISSION

Providing technical oriented enterprise development support in the **water, energy, and environment** sector through appropriate technological innovations

FOCUS AREAS

There are close linkages between the production and usage of energy and water, and consequently generation and disposal of waste. UJ PEETS endeavours to promote cross-disciplinary knowledge transfer that supports the development of the circular green economy. This is achieved by building on partnerships with researchers and developing networks within UJ and the South African National System of Innovation relating to sustainable development, resource efficiency and cleaner production, and industrial symbiosis.

Our focus at UJ PEETS is on **Process Optimization**, specifically in the energy and environmental sectors that supports circular zero-net waste approaches, increase value extraction from resources, and improved business strategies for Industry 4.0 and the green circular economy. In the **Energy Sector**, our focus is on energy efficiency and renewable energy solutions, waste-to-energy conversion, microgrids, smart and green mobility, green buildings, and energy storage, supported by data-driven decision making and industry 4.0 business process optimisation. In the **Environmental Sector**, our focus is on resource efficiency, cleaner production, waste reduction, utilisation and optimization, air quality management, water quality and quantity management, water loss management in distribution systems, and water purification.

FOR FURTHER INFORMATION CONTACT:

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<https://www.uj.ac.za/faculties/engineering-the-built-environment/uj-peets/>

For more information on UJ PEETS:



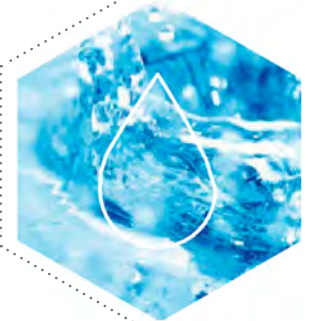
ENERGY

- Renewable energy solutions
- Energy efficiency
- Waste to Energy conversion
- Energy micro-Grids / Mini Grids
- Energy Storage



WATER

- Water quality management
- Salt Water Purification & desalination



ENVIRONMENT

- Waste optimization
- Air Quality Management
- Environment efficiency

