

TSHWANE UNIVERSITY OF TECHNOLOGY AND STELLENBOSCH UNIVERSITY COLLABORATIVE POSTDOCTORAL RESEARCH FELLOWSHIPS CALL

Applications are invited from suitable candidates for a TUT-SU collaborative postdoctoral research fellowship in the Department of Electrical Engineering at the Tshwane University of Technology (TUT) and the Department of Electrical and Electronic Engineering at Stellenbosch University (SU). The programme will allow a successful candidate to spend a year each at TUT and SU working on a coherent and multi-disciplinary research project. The academic hosts, one at TUT and one at SU, will provide mentorship.

Research field/area:

- Electromagnetic design, modelling and optimisation of electrical machines.
- Thermal and Mechanical analysis of ultra-large direct-drive wind generators.
- Electric drives for traction electrification in electric vehicles, airplanes and ships.
- Modelling and intelligent control of large-scale energy storage systems.
- Multi-physics design of high-performance electric drive systems for eVTOL.
- Sustainable and rare-earth-free electrical machine technologies for next-generation energy and mobility systems.

Minimum requirements:

- A doctoral degree in Electrical Engineering or related field obtained within the past five years. Specialisation in electrical machines, electrical drives, power electronics, intelligent systems, energy storage and control will be an advantage.
- Applicants must have a proven track record of research publication in accredited or peer-reviewed journals e.g., *IEEE Transactions*.
- Demonstrated ability to present research findings at national and international conferences.

Value of fellowship:

- ZAR 350 000 per annum tax free

Interested candidates should submit the following documents to AkuruUB@tut.ac.za and garnerks@sun.ac.za; detailed CV, certified copies of all relevant qualifications, ID or passport, and a one-page research proposal that the candidate wish to pursue during the fellowship.

Enquires: Dr UB Akuru, +27 12 382 5605 and Dr KS Garner, +27 21 808 4014

Closing date: **23 October 2026**