

The University of KwaZulu-Natal (UKZN) is committed to employment equity.

**POST-DOCTORAL RESEARCH ASSISTANT  
(12 MONTHS BURSARY)**

**CENTRE OF RADIO ACCESS AND RURAL COMMUNICATIONS TECHNOLOGIES**

**DISCIPLINE OF ELECTRICAL ELECTRONIC AND COMPUTER ENGINEERING  
COLLEGE OF AGRICULTURE, ENGINEERING AND SCIENCE  
HOWARD COLLEGE CAMPUS**

The Telkom Centre of Excellence (COE) at UKZN is a training, research, consultancy and information resource Centre for the telecommunications in Southern Africa that conducts research on problems related to subscriber services, teletraffic aspects and access networks. Emphasis is placed on investigating new or alternative ways of providing telecommunications services either through legacy or contemporary networks. The center is involved in advancing or developing new digital communication technologies as applied in diverse fields including wireless sensor networks (WSN).

The successful candidate for this position will be involved in the development and investigation of modern communication protocols and techniques for WSN especially for the South African environment. The project will propose optimal energy efficient communication designs to improve the data transmission, monitoring and compare to the few existing design for optical communication in WSN. The developed design techniques will aim to improve capacity while addressing the arising challenges of WSNs. A capacity evaluation of the design will be carried out and practical parameters developed to assist in the implementation of such systems in the country. The candidate will be expected to apply machine learning and optimization techniques to improve data transmission in the adverse environments.

The duration of the appointment will be 12 consecutive months, starting in January 2023, and may be extended based on performance should additional funding be secured.

Each post-doctoral research assistant is paid a R180 000 stipend per annum.

**MINIMUM REQUIREMENTS**

- The candidate must have been awarded a PhD in Engineering or Computer Science or allied disciplines *within the past 3 years*.
- A demonstrated record of research in Digital Communications.
- A demonstrated ability to write code, reports and journal articles.
- The ability to contribute to UKZN's mission and vision in terms of research.

**Applicants who do not meet the minimum requirements will not be considered. The closing date for receipt of applications is Friday 16 December 2022.**

Request application forms at: [NtombelaS4@ukzn.ac.za](mailto:NtombelaS4@ukzn.ac.za). Applications forms, covering letter and curriculum vitae should be addressed to Prof. Tom Walingo and emailed to: [Walingo@ukzn.ac.za](mailto:Walingo@ukzn.ac.za).

Alternatively, posted to:

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