

COLLEGE OF AGRICULTURE, ENGINEERING AND SCIENCE

UNIVERSITY OF KWAZULU-NATAL (UKZN)

POSTDOCTORAL FELLOWSHIP

February 2026 – January 2027 (12 months)

PHYSICS & BIOLOGY

SCHOOL OF AGRICULTURE AND SCIENCE

WESTVILLE CAMPUS

An interdisciplinary postdoctoral fellowship position spanning Physics, Computer Science and Life Sciences is available in the Centre for Quantum Computing and Technology (CQCTec). The new Centre offers a vibrant research environment for fundamental quantum science and industrial applications relevant to societal development and welfare. The postdoctoral position is supported by the College of Agriculture, Engineering and Science. It is related to a project on ecological networks from the estuarine and marine environment, with the aim to numerically simulate them by means of quantum computing.

The incumbent will be expected to conduct research on feasibility of ecological networks, adapting existing and designing new Variational Quantum Algorithms that can characterise their efficiency and resilience. For this purpose she/he will work under the supervision of three professors from Life Sciences and Physics.

Minimum Requirements:

- PhD degree in physics obtained in the last 5 years in a subject from quantum or computational physics. If the PhD is submitted at the time of application but not yet completed, please attach proof of submission.
- Experience in Quantum and Classical Coding.
- Interest in applications of quantum algorithms to ecological systems
- Teaching or mentoring experience at undergraduate or postgraduate level

The closing date for receipt of applications is **Friday, 12th December 2025**. Applicants are required to submit the following documents in a single PDF to Ms Nokwanda Majola, MajolaN6@ukzn.ac.za, with the subject line "**Quantum Ecology post-doc**". For more information please contact Prof Thomas Konrad (Physics), Konradt@ukzn.ac.za, or Prof Ursula Scharler (Life Sciences), Scharler@ukzn.ac.za.

- A short letter of motivation, stating expertise and experience.
- A full curriculum vitae, including a list of publications.
- Academic transcripts
- Contact details for three referees

This post-doc position is a UKZN College of Agriculture, Engineering and Science position.

Late applications will not be considered and correspondence is limited to candidates short-listed for an interview. The University reserves the right not to make an appointment to this advertisement.

The University of KwaZulu-Natal (UKZN) is committed to meeting the objectives of Employment Equity to improve representativity within the Institution. Preference will be given to applicants from designated groups under its Employment Equity Plan.

Kindly note that the University of KwaZulu-Natal ("the University") is required to process any Personal Information (as defined by the Protection of Personal Act, 2013 "POPIA") submitted by candidates when applying for positions at the University. The University will endeavour to ensure that the appropriate security measures are in place and implemented for both electronic and paper-based formats that are used for processing of the personal information recorded through this recruitment and selection process. We refer you to the University's relevant Section 18 notice at <http://vacancies.ukzn.ac.za/Libraries/General Documents/Section 18 Notice - Employees and Potential Employees.sflb.ashx>