

The University of KwaZulu-Natal (UKZN) is committed to meeting the objectives of Employment Equity to improve representivity within the Institution. Preference will be given to applicants from designated groups in accordance with our Employment Equity Plan.

COLLEGE OF AGRICULTURE, ENGINEERING AND SCIENCE

**POSTDOCTORAL FELLOWSHIP: DERISKING & RE-ENGINEERING – WATER EFFICIENT INFRASTRUCTURE SOLUTIONS
(12 MONTHS)**

**WATER, SANITATION AND HYGIENE RESEARCH & DEVELOPMENT (WASH R&D) CENTRE
DISCIPLINE OF CHEMICAL ENGINEERING
SCHOOL OF ENGINEERING
HOWARD COLLEGE CAMPUS
REF NO.: WASH CENTRE 5/2025**

The WASH R&D Centre, based within the Discipline of Chemical Engineering at the University of KwaZulu-Natal (Durban, South Africa), is a multidisciplinary research hub focused on the development and deployment of decentralised, water-efficient technologies. The Centre supports applied research, pilot testing, and long-term performance improvement of infrastructure systems aimed at delivering sustainable and context-appropriate solutions.

We are seeking a postdoctoral fellow to support derisking and re-engineering efforts for a range of decentralised water-efficient technologies. The successful candidate will coordinate engineering interventions that align system performance with design specifications, based on data from real-world deployments and field monitoring.

Key Responsibilities:

- Oversee engineering diagnostics and resolution of performance issues in deployed technologies.
- Coordinate re-engineering of systems based on field evidence and simulator/model validation.
- Work closely with field teams to analyse samples and sensor data for operational insights.
- Engage with technology partners to adapt systems to South African conditions.
- Contribute to risk assessment frameworks and infrastructure lifecycle improvement.
- Produce at least two peer-reviewed scientific outputs per year.

The position is available for 12 months, with potential annual renewal depending on funding and performance. The successful candidate must have a valid passport and driver's license

**WASH R&D Centre (Howard College Campus)
Discipline of Chemical Engineering, School of Engineering
College of Agriculture, Engineering & Science**

Postal Address: University of KwaZulu-Natal, Durban 4041, South Africa

Telephone: +27 (0)31 260 3375 (office)/+27 (0)72 425 2741 (cell/mobile) **Email:** philpk@ukzn.ac.za **Website:**
washcentre.ukzn.ac.za

Minimum Requirements:

PhD in Chemical Engineering or relevant applied sciences obtained within the last five years.

- Experience in design, evaluation, and iterative improvement of decentralised infrastructure systems.
- Proven ability to conduct field-based performance assessment and interpret sample/sensor data.
- Familiarity with biological, chemical, and electrochemical processes relevant to water treatment or reuse.
- Strong publication record and academic writing skills.
- High-level proficiency in data management, simulation tools, and technical reporting.
- Strong communication and project coordination skills.

Closing Date: Monday 30 June 2025

Application Requirements:

1. A covering letter addressing each minimum requirement.
2. A detailed CV with list of publications.
3. Contact details of two referees.
4. Certified copy of the doctoral degree certificate or PhD award letter.
5. Certified copy of ID/permanent residence document or valid permit for international applicants.

Applications to be submitted to Kerry Philp, email: philpk@ukzn.ac.za

Please include reference number in the subject line.

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