

COLLEGE OF AGRICULTURE, ENGINEERING AND SCIENCE
FUNDED FULL-TIME MSC
WASH R&D CENTRE
HOWARD COLLEGE CAMPUS
REF: MSC SMART METERING

The WASH R&D Centre is a transdisciplinary research and development hub in Africa that produces next-generation solutions for global water and sanitation challenges.

This project proposes the design optimisation, lab development, deployment and performance evaluation of a low-cost smart bulk water metering system, serving as a benchmark study for broader adoption in South Africa. The study aims to assess the systems effectiveness in improving digitisation of traditional/conventional bulk water meters and enhancing operational efficiency. The student research study will focus on developing the different aspects of the system and may include aspects of power optimisation, software and hardware optimisation. The project deliverables will directly address the critical need for smart water metering by:

1. Providing Water Service Authorities with access to real-time data for efficient water distribution monitoring;
2. Demonstrating a cost-effective and sustainable alternative to replacing existing bulk metering systems whilst ensuring accessibility of data collection in resource-constrained locations; and
3. Facilitating improvements to water management and revenue collection by improving bulk water metering/measurement accuracy

The project is looking to employ a full-time Masters student who will work as part of a transdisciplinary team. Funding and payment will be made upon the submission of project outputs/deliverables. Start is second semester 2026.

Minimum Requirements:

- Postgraduate qualification in Geography, environmental science or any related field.
- Some knowledge of water management and application of IoT sensors and smart meters
- Fluency in English and scientific report writing

The closing date for receipt of applications is Friday 6th March 2026

Applicants are required to submit their CVs together with a motivation letter on how they meet the requirements. Please forward all applications to Dr I. Banoo banooi@ukzn.ac.za

WASH R&D Centre (Howard College Campus)
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Founding Campuses:  Edgewood  Howard College  Medical School  Pietermaritzburg  Westville