

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

COLLEGE OF AGRICULTURE, ENGINEERING AND SCIENCE

**RESEARCH ASSISTANT: ALTERNATIVE BUILDING MATERIALS
WASH R&D CENTRE, CHEMICAL ENGINEERING
SCHOOL OF ENGINEERING
HOWARD COLLEGE CAMPUS
REF NO.: WASH 4/2026**

The Water Sanitation & Hygiene Research & Development (WASH R&D) Centre in the School of Engineering is an externally funded team of professional researchers working on multidisciplinary research projects in the urban and industrial water and sanitation sector.

The WASH R&D Centre is looking to recruit one MSc student to provide full time support to the project: Incorporating Faecal Sludge into Novel Building Materials.

This MSc research opportunity in Environmental and Civil Engineering focuses on developing sustainable building materials by incorporating faecal sludge recovered from the LOOWATT sanitation system. The LOOWATT system, implemented in Durban, South Africa, since 2023, is a non-sewered sanitation technology designed to improve hygiene by trapping human waste in a liner, eliminating direct contact, odors, and pathogen spread. While the system has achieved significant social acceptance, challenges remain regarding the safe and sustainable disposal of sludge and the liner.

The aim of this research project is to explore the potential of transforming faecal sludge and the liner into innovative building materials, such as concrete and clay bricks, within a circular economy framework. The research will contribute to sustainable waste management practices, promote environmental conservation, and address housing and construction material challenges.

The incumbent will be responsible for supporting senior researchers as an embedded researcher, compiling and analysing generated data, writing reports and articles for peer-reviewed journals. S/he will prepare presentations and present at conference proceedings, strategic workshops and seminars/forums.

Minimum Requirements

- An Honours degree in Chemical Engineering, Civil Engineering, Environmental Engineering, or a related field
- Experience in laboratory work or experimental research is an advantage

The closing date for receipt of applications is 3 April 2026

The remuneration will be at the University standard rates of pay.

Applicants are required to submit their CVs together with a motivation letter on how they meet the requirements. Please forward all documents to Dr Mustapha Bamidele Jaji JajiM@ukzn.ac.za or Dr Samuel Gtahn getahuns@ukzn.ac.za.

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