



UNIVERSITY OF
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WASH R&D CENTRE

Water Sanitation & Hygiene Research & Development Centre

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

**RESEARCH ASSISTANT: SANITATION TECHNOLOGY (1 YEAR APPOINTMENT)
WATER SANITATION & HYGIENE RESEARCH & DEVELOPMENT (WASH R&D) CENTRE
(CHEMICAL ENGINEERING)
SCHOOL OF ENGINEERING
HOWARD COLLEGE CAMPUS**

REF NO.: WASH R&D CENTRE RA_SOLAR/2022

The WASH R&D Centre, located at the University of KwaZulu-Natal (Durban, South Africa) is an externally funded team of professional researchers working on multidisciplinary projects in the urban and industrial water and sanitation sector.

The Centre is looking for a research assistant to work on a project related to solar thermal drying technologies. Solar thermal dryers are intended to provide a cost-effective solution to treat faecal sludge for municipalities and sanitation practitioners. These technologies rely on the use of solar power to dry and disinfect faecal sludge at low operating costs, contrary to conventional thermal driers that require high energy consumption to provide the latent heat for water evaporation. The WASH Centre have developed a number of solar thermal drying technologies which require testing for their characterization, optimization, improvement and performance. The ultimate goal is commercialization of these technologies.

The project is in partnership with: Swansea University (United Kingdom), Mangosuthu University of Technology (South Africa), eThekweni municipality (South Africa), Khanyisa Projects (South Africa) and EnviroSan (South Africa).






The research assistant will be involved in the following activities:

- Organization of testing of the solar thermal drying prototypes
- Modification in the workshop of the prototypes
- Participation in the re-design of these technologies
- Support in the organization of the academic exchange program with the partners from the project
- Support in the administration of the project
- Reporting.

**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

Founding Campuses:  Edgewood  Howard College  Medical School  Pietermaritzburg  Westville

The position is available for 12 months. The remuneration package will be communicated to the candidate by request. There will be a possible trip to Swansea University in the UK, so the candidate should have a valid passport and be willing to travel.

Minimum Requirements:

- A MSc or PhD degree completed or in course of completion in mechanical engineering or thermal processing
- Work experience in one of the following fields: water and sanitation, solar thermal energy, thermal drying
- Experience in writing reports and/or scientific articles
- Experience in supervision and mentoring
- Experience in technology design and development
- Experience in project management and modelling would be an advantage

The closing date for receipt of applications is Friday 27th January 2023.

Applicants are required to submit the following:

Applications to be emailed to Mrs Lungile Zama Shangase, email: (ndlelal1@ukzn.ac.za) and Dr Santiago Septien Stringel (septiens@ukzn.ac.za) before the closing date. The subject line must clearly indicate the reference no.