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

**COLLEGE OF AGRICULTURE, ENGINEERING AND SCIENCE**

**POST DOCTORAL RESEARCHER: REMOTE SENSING OF CARBON SEQUESTRATION**

**TWO YEARS FIXED TERM APPOINTMENT, RENEWABLE**

**COLLEGE OF AGRICULTURE, ENGINEERING AND SCIENCE (AES)**

**PIETERMARITZBURG CAMPUS**

**REF NO. SHEFS/SAR 01/2024**

The Sustainable and Healthy Food Systems – Southern Africa is a Wellcome Trust Funded six-year research programme that is based at UKZN, with multiple partners. These include the Institute of Natural Resources in PMB, the University of Zimbabwe, Lilongwe University of Agriculture and Natural Resources, Malawi University of Business and Applied Sciences, London School of Hygiene and Tropical Medicine, University College London, Aberdeen University, and Royal Veterinary College.

SHEFS-SA will catalyse the transformation of Southern African food systems and communities towards systems and communities that are healthy and resilient to climate risks. The consortium will focus on providing actionable evidence for informed decision-making and identifying and developing practical solutions for Climate Change mitigation and/or adaptation, while evaluating in detail how their effects connect to health, including mental health, through food security, food safety and nutrition. The programme deepens our work in South Africa, and will expand to include Zimbabwe and Malawi to ensure regional policy impact.

In the light of Climate Change mitigation strategies, the SHEFS- SA Programme and SARChI Chair in Landuse Planning and Management within the College of Agriculture, Engineering and Science (AES) are pleased to announce a fixed-term Post-Doctoral Fellowship on carbon sequestration.

The overall objective of the fellowship is to develop integrated research on carbon sequestration across different ecosystems across South Africa, Zimbabwe and Malawi (and potentially other SADC countries). Focus will be on assessing variability in carbon stocks across different land use systems using Remote Sensing, and how interventions such as ecosystem restoration and conservation compatible and carbon-friendly agriculture (rangeland management, crop management) contribute to climate-change adaptation and/or mitigation. We seek to appoint a dynamic, innovative, and self-motivated professional with potential to adopt optical and microwave Remote Sensing, Machine learning and Artificial Intelligence (AI) approaches in mapping vegetation, including crops and soil carbon dynamics in both space and time. The candidate is expected to work in a multidisciplinary environment, supporting postgraduate students and publish research findings in accredited journals. As part of our transdisciplinary team, the successful candidate will be exposed to exciting research challenges and get many opportunities to foster their career growth through innovative solutions. An appointment will be on a 2 years fixed-term contract, but this may be renewed subject to additional funding being secured and satisfactory performance.

The successful applicant will be expected to engage in **full-time** postdoctoral studies on the Pietermaritzburg Campus.

**Minimum Requirements:**

* PhD in Environmental Science, Geography, Remote Sensing/GIS, Ecology, Land/Natural Resources Management, with strong evidence of Ecological remote sensing.
* Analytical GIS and or Remote Sensing with programming skills.
* A proven research record as evidenced by some recent publications in peer-reviewed ISI/DHET rated journals.
* Experience of working in multi-disciplinary teams.
* The candidate must have completed his/her PhD within five years of the appointment being made.

Candidates who are self-motivated, rigorous, and responsible with a track record showing ability to conduct independent research and publications in reputable journals are encouraged to apply. **The closing date for receipt of applications is 10 September 2024, however, this advert will remain open until the position is filled.**

Enquiries and details regarding the post may be directed to Prof. O. Mutanga ([Mutangao@ukzn.ac.za](mailto:Mutangao@ukzn.ac.za)).

This appointment will be made in line with the University Guidelines/benchmarks which are available on the University Vacancies website at http://vacancies.ukzn.ac.za/Academic-Process-Proc-Guides.aspx

**Fellowship Award applications should consist of:**

1. CV with publication record, (2) letter of motivation, (3) Full academic records, and (4) contact details of two academic referees to Andile Mshengu, Email: [mshengua@ukzn.ac.za](mailto:mshengua@ukzn.ac.za). The advert Reference Number MUST be clearly stated in the subject line.