

**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.**

**Applicants who had previously applied need not to re-apply, as their applications will be considered.**

**COLLEGE OF AGRICULTURE, ENGINEERING AND SCIENCE**

**RE-ADVERTISEMENT**

**SENIOR RESEARCHER/RESEARCHER  
(FIXED TERM FOUR-YEAR APPOINTMENT)**

**CENTRE FOR WATER RESOURCES RESEARCH  
SCHOOL OF AGRICULTURAL, EARTH AND ENVIRONMENTAL SCIENCES**

**PIETERMARITZBURG CAMPUS  
REF NO. AEE14/2022**

The Centre for Water Resources Research seeks to appoint a suitably qualified researcher to lead, manage and undertake externally funded research contracts, which are focussed on:

- (i) Analysing remotely sensed very-high spatial resolution data to guide and inform precision agriculture in smallholder farms.
- (ii) Determining the water use of Cannabis trees in the Eastern Cape and KwaZulu-Natal Provinces.

The incumbent will be responsible for the management and execution of the above research projects, internal and external communication, delivering contract outcomes, project budget control and reporting to funders. In addition, the incumbent will be expected to undertake travel for field work, publish peer-reviewed journal articles, supervise postgraduate students, procure new research contracts and deliver specialist lectures in the Hydrology programme.

The incumbent should have qualification, training, and experience within Remote Sensing and GIS, Hydrological modelling, Machine Learning, Evapotranspiration measurement and modelling, as well as programming using R and Java. S/he should be knowledgeable about the use of drone technology for precision agriculture, geospatial cloud computing and data processing platforms for big data analysis.

The incumbent will report to the Director of the Centre for Water Resources Research.

**Minimum Requirements:**

- A doctoral degree in hydrology, crop science or any related environmental science.
- At least two-year experience in evapotranspiration measurement and modelling.
- At least one-year experience in geospatial cloud computing, machine learning and programming using R and Java.
- A current and sustained research publication record in peer-reviewed ISI/DoHET accredited journals.
- Evidence of field based hydrological monitoring and remote sensing using a UAV.

- Experience in supervising postgraduate students.
- Evidence of drafting research proposals and securing funds for research project.

Enquiries regarding the full details of the post and associated duties may be directed to Professor Jeff Smithers, email: [smithers@ukzn.ac.za](mailto:smithers@ukzn.ac.za)

**Appointment to this post will be on the January 2018 Conditions of Service. The remuneration package offered includes benefits.**

**The closing date for receipt of applications is 30 August 2022.**

**Applicants are required to complete the relevant application form which is available on the Vacancies page of the University website at [www.ukzn.ac.za](http://www.ukzn.ac.za). Completed forms with CV's may be sent to [recruitment-aes@ukzn.ac.za](mailto:recruitment-aes@ukzn.ac.za). Please state the advert reference number in your 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](http://vacancies.ukzn.ac.za/Libraries/General_Documents/Section_18_Notice_-_Employees_and_Potential_Employees.sflb.ashx)*