

CAREER OPPORTUNITY

The CSIR (Council for Scientific and Industrial Research) is a leading scientific and technology research organisation, implementing projects throughout Africa and making a difference in people's lives.

Doctoral Studentships: Remote sensing of vegetation (Pretoria)

(Two positions)

About the group:

The Earth Observation (EO) research group of the CSIR Natural Resources and Environment (NRE) unit conducts basic, applied and core applied remote sensing research aimed at improved understanding, management and monitoring of natural resources. Efforts are geared towards system-level remote sensing across various scales, which include spatially explicit ecosystem state description, modelling, change detection and mapping. Key research programmes focus on mapping and monitoring water quality (coastal and inland), forests (biomass assessment and carbon accounting), biodiversity, vegetation productivity and health, plant water use and evapotranspiration.

About the job:

An integrated approach to rural landscape management in South Africa has long been stymied by the lack of adequate spatio-temporal data on essential biodiversity variables (EBVs) including vegetation quality (leaf nutrient levels, e.g. nitrogen or protein concentration), quantity (biomass or cover) and species diversity. Air- and space-borne remote sensing can be used to provide near real-time information on EBVs by integrating limited sampling schemes with remote sensing variables to enable large-scale generalisation of EBVs.

The research unit is offering two three-year doctoral (PhD) studentships in remote sensing and vegetation modelling. The research will focus on modelling floral diversity and invasive species distribution in some river catchments in South Africa. Both students will be based at CSIR Natural Resources and Environment in Pretoria.

About the studentship programme:

The CSIR PhD studentship programme is both prestigious and competitive. A studentship is an employment contract with the CSIR for selected graduates to primarily perform research on a topic approved by the organisation. The studentship is fully funded by the CSIR and will lead to a doctoral degree. The benefits and features of a studentship include:

- Obtaining a doctoral degree while working full time as a member of a professional research group.
- Gaining exposure to related industry and public-sector projects.
- Receiving very attractive financial support for full-time study which covers an annual salary, university fees and participation in local and international conferences.
- Candidates must have a Master's degree to be eligible for a doctoral studentship. Applications may be submitted while in the final stage of the prior degree provided that the degree is completed before the commencement of the studentship.

Qualifications, skills, and experience:

- A recent MSc degree in remote sensing, plant sciences, biology, environmental science or geography.
- A good understanding of the principles of remote sensing and geographic information system (GIS).
- Adequate skills in mathematics and environmental modelling.
- Ability to work independently, as well as in a team.
- Self-motivation and ability to be stimulated by the scientific environment.

Should you meet the above requirements, please go to the URL indicated below in order to apply; select the position reference number<<JR number>>; complete the application form and attach your CV: www.csir.co.za/apply.php

Closing date:

PLEASE NOTE THAT FEEDBACK WILL BE GIVEN TO SHORTLISTED CANDIDATES ONLY.

Should you experience any problems in submitting your application, please contact the CSIR Recruitment Centre at Recruitmentqueries@csir.co.za. Please **do not** submit your application to this mailbox.

*The CSIR gives preference to candidates who meet the job requirements and who will add to the cultural and gender diversity of the organisation. By applying for this position at the CSIR, the applicant understands, consents and agrees that the CSIR may solicit a credit and criminal report from a registered credit bureau and/or SAPS (in relation to positions that require trust and honesty and/or entail the handling of cash or finances) and may also verify the applicant's educational qualifications and employment history. **The CSIR reserves the right not to appoint if a suitable candidate is not identified.***