

CAREER OPPORTUNITY

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

Master's Studentship

About the job:

The CSIR has a **Master's Studentship** opportunity in the Earth Observation Science and Information Technology group within the Meraka Institute. The incumbent will undertake research duties on the topic below. This position is based in Rosebank, Cape Town.

Research topic:

The use of ocean colour data to analyse and understand the occurrence of Harmful Algal Blooms on the south coast of South Africa. Harmful blooms, common on the South African west coast, appear to be occurring more often and with greater impact in the last decade on the south coast. Ocean colour data from the MODIS and MERIS sensors offer a systematic ability to study changes in bloom frequency and spread. The Ocean and Coastal Information Management System (OCIMS) have developed harmful algal bloom observation and decision support tools. This project will use the available data and tools under the OCIMS project to analyse and quantify bloom phenology, geographic extent and impact for the region from Walker Bay to the Wild Coast for the period 2000 - 2017. The study will use new regional ocean products in combination with synoptic bloom identification tools to analyse bloom occurrence at the event, monthly, seasonal and inter-annual time scales. The study is expected to make a contribution to the aquaculture and ocean governance components of Operation Phakisa Ocean Economy.

Key responsibilities:

- Prepare a research proposal to be approved by both the CSIR and the university;
- Prepare a written literature overview around the research topic;
- Engage with aquaculture and government stakeholders to understand user requirements and impacts of harmful algal blooms;
- Perform original research to solve the problem that the student identified in his/her proposal;
- Produce a peer-reviewed publications around this research topic;
- Compile a Master's thesis and defend the work successfully;

Qualifications, skills and experience:

- An Honours degree in numerical sciences (e.g. physics, mathematics, engineering, earth sciences, computer science, statistics, or any computational field);
- Adequate skills and experience in computer coding and data handling essential;
- Familiarity in the use of earth observation and GIS strong advantage;
- Knowledge/familiarity with performing data processing, analysis, visualisation and interpretation of data beneficial;

- Effective communication skills (oral, written and presentation);
- Ability to work independently, as well as in a team;
- Self-motivated and ability to be stimulated by the scientific environment.

Should you meet the above requirements, please email your CV to jobapplications@csir.co.za with your name and surname, position title and reference number in the subject line, **(e.g. John Smith: Master's Studentship: Reference No: 308112)**

Closing date: 06 June 2017

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

For more info, please contact the CSIR Recruitment Centre on **012 841 4774** or email us at Recruitmentinfo@csir.co.za

*The CSIR is an equal opportunity employer. As such, it is committed to the Employment Equity Act of 1998. 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 to remove the advertisement at any time before the stated closing date and it further reserves the right not to appoint if a suitable candidate is not identified.***