# Position Description

## Research Projects – CSOF4

The following information is for applicants

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| Advertised Job Title**:** | Experimental Scientist |
| Job Reference: | 62106 |
| Relocation Assistance**:** | Will be provided to the successful candidate if required. |
| Applications Are Open To: | Australian/New Zealand Citizens and Australian Permanent Residents Only |
| Percentage of Client Focus - Internal: | 10% |
| Percentage of Client Focus - External: | 90% |
| Reports to the: | Team Leader |
| Number of Direct Reports: | 0 |
| How to apply: | Please apply online at [jobs.csiro.au](https://jobs.csiro.au/) and enter the requisition number**.** Internal applicants please apply via ‘Jobs Central’ through the ‘People Hub’ icon and email the responses to the selection criteria to the contact officer.  |
| Contact details to discuss this position: | Janet Anstee, 0262465714, janet.anstee@csiro.au *Please do not email your application directly to Janet Anstee. Applications received via this method will not be considered.* |
| If you have difficulty applying please contact: | Call 1300 984 220 or email csiro.online@csiro.au between 8.30 am and 5 pm Australian east coast time. |

## Role Overview:

The Aquatic Remote Sensing team in the Coasts program in CSIRO Oceans and Atmosphere is seeking an Experimental Scientist to specialise in bio-optical field measurements and aquatic remote sensing applications.

This new position will focus on the calibration and validation activities in an inland water quality project. This work forms an integral component of the effective use of Earth Observation data and in the maintenance of the scientific value of its data archives. The Experimental Scientist will deal with considerable variety, tackling scientific, engineering and logistical challenges across a range of different aquatic systems. Acquisition of observational data for satellite calibration and validation is a key activity for the team, which underpins much of our remote sensing science, delivery of quality assured data for applications, as well as our international cooperation activities.

## Duties and Key Result Areas:

The core duties for this position are:

* Deal with considerable variety, tackling scientific, engineering and logistical challenges across a range of different aquatic systems.
* Plan experiments, operate instrumentation in the laboratory and field, as well as processing and analysis of observational data for satellite calibration and validation.
* Contribute to the acquisition, interpretation and communication of research and collaborate on presentations and written reports for, clients and the scientific and/or technology community.
* Under general direction participate in field campaign planning projects and accept responsibility for the scheduling and completion of major parts of the projects, including allocating and directing tasks where appropriate.
* Provide coaching, on-the-job training and instruction to colleagues, on activities pertaining to the immediate work area and responsibilities, allocate activities, direct tasks and manage resources to meet objectives, as required.
* Adapt and/or develop original experimental methods/equipment/software/concepts/ ideas in support of existing and further research, promptly addressing where methods may not be defined and initiative is required in seeking new approaches to meet experimental and/or technological needs.
* Contribute to scientific publications, excellent communication skills, and ability to openly, effectively and respectfully communicate with all staff, clients and suppliers in the interests of good business practice, collaboration and enhancement of CSIRO’s reputation.
* Work collaboratively as part of a multi-disciplinary, often regionally dispersed research team, and business unit to carry out tasks in support of CSIRO’s scientific objectives, including engagement with local communities and Indigenous groups.
* Adhere to the spirit and practice of CSIRO’s Code of Conduct, Health, Safety and Environment plans and policies, Diversity initiatives and Zero Harm goals.
* Other duties as directed.

## Competencies:

1. **Teamwork and Collaboration: Cooperates with others to achieve organisational objectives and may share team resources in order to do this. Collaborates with other teams as well as industry colleagues.**
2. **Influence and Communication: Uses knowledge of other party's priorities and adapts presentations or discussions to appeal to the interests and level of the audience. Anticipates and prepares for others reactions.**
3. **Resource Management/Leadership: Allocates activities, directs tasks and manages resources to meet objectives. Provides coaching and on the job training, recognises and supports staff achievements and fosters open communication in the team.**
4. **Judgement and Problem Solving:** Investigates underlying issues of complex and ill-defined problems and develops appropriate response by adapting/creating and testing alternative solutions.
5. **Independence: Recognise and makes immediate changes to improve performance (faster, better, lower cost, more efficiently, better quality, improved client satisfaction).**
6. **Adaptability:** Copes with ambiguity or situations that lack clarity. Adapts readily to changing circumstances and new responsibilities (which may include activities outside own preferences) in the interests of achieving team objectives. Recognises the need for and undertakes personal development as a result of changes.

## Selection Criteria:

Under CSIRO policy only those who meet all essential selection criteria can be appointed.

1. Postgraduate degree or relevant work experience in water quality and/or remote sensing.
2. Previous experience and/or a desire and ability to participate, in field measurement campaigns including research vessel-based missions.
3. The ability to initially assist and ultimately lead remote field campaigns for up to 3 weeks at a time.
4. Experience or ability to undertake small boat operations including coxswain training.
5. Experience or ability to undertake processing and archiving of water quality data.
6. Demonstrated experience with processing and analysis of optical remote sensing data.
7. Work collaboratively as part of a multi-disciplinary, often regionally dispersed research team, and business unit to carry out tasks in support of CSIRO's scientific objectives, including engagement with local communities and Indigenous groups.

## Desirable Criteria:

1. Well-developed written and verbal communication skills, for example, contributing to publications in academic environments such as scientific journals/conference proceedings, or experience presenting and demonstrating at conferences, industry exhibitions, and internal training seminars.
2. Demonstrated experience in instrumentation maintenance and calibration as well the mobilisation and demobilisation of instrumentation for field campaigns.
3. Demonstrated experience in deploying instrument hardware, (as well as configuring and operating menu-driven instrument software) and understanding of instrument operation and appropriate deployment methods in the environment.
4. Demonstrated experience in development of remote sensing products and tools for aquatic applications.
5. Experience in the scientifically-oriented coding languages (Python, R, IDL, Shell scripting etc).
6. Familiarity with basic concepts of radiative transfer modelling and remote sensing inversion methods.

## Special Requirements:

Successful applicants will be required to provide a National Police Check prior to commencement and a medical check for fieldwork suitability.

## About CSIRO:

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Find out more about CSIRO [Oceans and Atmosphere](https://www.csiro.au/en/Research/OandA)