# Position Details

## Research Projects- CSOF5

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| The following information is for applicants |
| Advertised Job Title | Marine Sensor Systems Engineer |
| Job Reference | 84093 |
| Tenure | Specified Term of 3 years Full-time |
| Salary Range | AU$102,724 - AU$111,165 per annum (pro-rata for part-time)plus up to 15.4% superannuation |
| Location(s) | Hobart, Tasmania, Australia |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | * All Candidates
 |
| Position reports to the | Team Leader |
| Client Focus – Internal | 70% |
| Client Focus – External | 30% |
| Number of Direct Reports | 0 |
| Enquire about this job | Chris Wilcox via email at chris.wilcox@csiro.au or phone +61 3 6232 5306 |
| How to apply | Apply online at <https://jobs.csiro.au/> Internal applicants please apply via **Jobs Central**If you experience difficulties when applying, please email careers.online@csiro.au or call 1300 984 220. |

**Acknowledgement of Country**

CSIRO acknowledges the Traditional Owners of the land, sea and waters, of the areas that we live and work on across Australia. We acknowledge their continuing connection to their culture and pay our respects to their Elders past and present. View our [vision towards reconciliation](https://www.csiro.au/en/about/Indigenous-engagement/Reconciliation-Action-Plan).

### Role Overview

The role of Research Projects staff in CSIRO is to collaborate in scientific and technological activities with other research staff usually by assisting with detailed planning, undertaking or assisting with experimental, observational or technology development work, and in carrying out the more practical aspects of the work.

This position will support a number of projects within the CSIRO Oceans and Atmosphere Business Unit, covering the Marine Monitoring and Surveillance, Pollution, and Transforming Coastal Monitoring and Mapping domains. The position will require knowledge of electrical and mechatronic engineering. The successful applicant will work within a team of scientists and engineers to deliver projects across the marine research field with a focus on sensor and instrumentation development, supported by embedded machine learning and remote communications. Key activity areas at present include development of autonomous sensors for underwater acoustics, eDNA, and environmental pollutants.

For more information on the teams and research programs associated with the position, please see <https://research.csiro.au/iuu> and <https://research.csiro.au/marinedebris>.

### Duties and Key Result Areas

* Lead electronic and mechanical hardware design for sensor systems, subject to input from other technical experts and project leaders
* Contribute to the development of onboard data processing, including both classical signal processing and implementation of deep learning approaches
* Lead development of embedded systems hardware and software
* Participate in the design, planning and delivery of research projects in the marine environment
* Participate in land and water-based field work
* Interact with internal and external collaborators, supporting research strategy development, building strong interpersonal relationships, defining and balancing workloads, and delivering agreed outcomes.
* Respond courteously and efficiently to client requests, maintaining clear communication regarding mutual expectations and monitoring client satisfaction.
* Lead technical development initiatives with input from project leaders and team members, working with discretion to decide on the timing of operations within the work team’s plan and planning ahead to meet experiment and/or project demands.
* Oversee the activities of junior staff and provide guidance on experimental/ technological techniques and protocols.
* Have a significant role in communicating research or technological results in internal and external forums and, where applicable, contribute to and/or generate scientific papers.
* Communicate openly, effectively and respectfully 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.
* 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.

## **Selection Criteria**

#### Essential

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

1. Tertiary Degree in electronic engineering or related field
2. Demonstrated experience with embedded system development, including hardware, firmware development, communications and IoT
3. Knowledge of CAD and rapid prototyping
4. Demonstrated experience with electronic circuit design, testing, and evaluation
5. Experience in sensor development & testing
6. Experience with machine learning models, particularly deep learning approaches
7. Successful history of working in interdisciplinary teams, delivering environmental or related sensor systems

## **Desirable**

1. Experience working in molecular or chemical laboratory settings, including field data collection and processing
2. Experience with passive acoustic sensors and monitoring applications
3. Experience developing and implementing edge computing systems
4. Coastal and small vessel Fieldwork experience

## **Required Competencies**

* **Teamwork and Collaboration:** Cooperates with others to achieve organisational objectives and may share team resources in order to do this. Collaborates with other team as well as industry colleagues.
* **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.
* **Resource Management/Leadership:** Sets up and maintains effective and efficient work teams and manages performance and resources, to achieve objectives. Chooses appropriate management strategies and communication styles to maintain high levels of motivation and productivity. Gives feedback for development purposes and provides support and direction for improvement.
* **Judgement and Problem Solving:** Investigates underlying issues of complex and ill-defined problems and develops appropriate response by adapting/creating and testing alternative solutions.
* **Independence:** Plans, sets and works to meet challenging standards and goals for self and/or others. Recognises where endeavours will make the most impact or difference, decides on desired outcome and sets realistic goals to reach this target.
* **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.

Special Requirements

Appointment to this role may be subject to conditions including provision of a national police check as well as other security/medical/character clearance requirements.

* The successful candidate will be asked to obtain and provide evidence of a National Police Clearance or equivalent. Please note that individuals with criminal records are not automatically deemed ineligible. Each application will be considered on its merits.
* If the successful candidate is not an Australian Citizen or Permanent Resident, they may be required to undergo additional security clearances, which may include medical examinations and an international standardised test of English language proficiency (i.e. IELTS test- https://ielts.com.au/)

## **About CSIRO**

We solve the greatest challenges through innovative science and technology. Visit [CSIRO Online](http://www.csiro.au/) and [CSIRO’s Oceans and Atmosphere Business](https://www.csiro.au/en/about/people/business-units/Oceans-and-Atmosphere) Unit for more information.

CSIRO is a values-based organisation.  In your application and at interview you will need to demonstrate behaviours aligned to our values of:

* People First
* Further Together
* Making it Real
* Trusted