# Position Details

## Technical Services - CSOF5

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| The following information is for applicants | |
| Advertised Job Title | Senior Mechanical / Systems Engineer |
| Job Reference | 96347 |
| Tenure | Indefinite, Full-time |
| Salary Range | AU$114k- AU$123k per annum plus up to 15.4% superannuation |
| Location(s) | Hobart, Tasmania |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | Australian Citizens and Permanent Residents, and New Zealand Citizens who usually reside in Australia. |
| Position reports to the | Mechanical Team Leader – Engineered Systems |
| Client Focus – Internal | 70% |
| Client Focus – External | 30% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Alasdair Currie via email <alasdair.currie@csiro.au> |
| 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](mailto: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).

**Child Safety**

CSIRO is committed to the safety and wellbeing of all children and young people involved in our activities and programs. View our [Child Safe Policy](https://www.csiro.au/en/about/policies/child-safe-policy).

### Role Overview

This role is in the Engineering and Technology Program of the National Collections and Marine Infrastructure Business Unit and will focus on the design of oceanographic and atmospheric systems to support research within the Business Unit and CSIRO.

As a senior mechanical / systems engineer you will be responsible for leading the development of solutions for a wide variety of ocean and atmospheric observing systems to meet the requirements of research projects. You will be involved in all stages of the design process from project definition to project completion. You will regularly act as the project manager responsible for on-time and on-budget delivery of projects and oversight of the team of engineers contributing to that work.

You will be expected to operate independently and able to work as part of a team of exceptionally talented multidisciplinary engineers and technicians. You will be expected to solve design problems that are challenging and on the borders of the possible; developing solutions for deployment in some of the harshest conditions on the planet.

### Duties and Key Result Areas

* Design or develop experimental equipment, techniques, systems or processes requiring high levels of initiative, ingenuity and skill in the areas of Mechanical, Structural and Ocean Engineering.
* Undertake work that is highly involved with unique or unusual features and complexity which require original design and techniques, some of which may be outside a single discipline such as packaging custom electronics and thermal simulations.
* Plan, organise and monitor the allocation of resources and participate in project planning with responsibility for major aspects of projects.
* Liaise with clients to determine their needs and create project requirements, take personal responsibility for their satisfaction, correct problems promptly and in a constructive manner.
* Communicate research or service results 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, regionally dispersed team to carry out tasks in support of CSIRO scientific objectives.
* Adhere to the spirit and practice of CSIRO’s Values, Code of Conduct, Health, Safety and Environment procedures and policy, 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. Bachelor’s degree in engineering with extensive experience (or Masters) in Mechanical Engineering (or similar Marine discipline) from an accredited University.
2. Demonstrated capacity to solve complex engineering problems encountered during the design and build of mechanical systems and to deliver projects, where complexity may be demonstrated, not solely by the size of the project, but also by conflicting delivery criteria.
3. Demonstrated capability to produce engineering drawings and analyses using industry standard 3D design and FE tools, demonstrating fundamental structural mechanics principles.
4. Ability to manage resources, direct activities and allocate tasks to meet objectives in a timely manner while coping with ambiguity and lack of clarity and adapting to changing circumstances and responsibilities.
5. Clear and accurate written and oral communication skills relevant to the work area using an understanding of the interests and priorities of stakeholders.
6. Ability to work in teams to achieve objectives and to collaborate with other teams and industry partners.

## **Desirable**

1. Experience in the design of marine and subsea systems (such as Remotely Operated Vehicles, marine autonomous systems, oceanographic moorings, underwater camera systems, etc.).
2. Experience in computational analytical methods (such as Computational fluid dynamics or finite element analysis).
3. Experience with Matlab, Python or similar programming software.
4. Knowledge of electronics / electromechanical design*.*
5. Ability to operate at sea, demonstrated either professionally or recreationally.

## **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 teams 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 is subject to provision of a pre-employment background check and may be subject to other security/medical/character clearance requirements.

* The successful candidate will undertake a pre-employment background check. Please note that individuals with criminal records are not automatically deemed ineligible. Each application will be considered on its merits.
* This role may involve occasional work at sea, therefore the successful candidate must be willing to obtain a remote medical clearance and a Marine Security Identification Card during the 6 month probation period.

## **About CSIRO**

We solve the greatest challenges through innovative science and technology. Visit [CSIRO Online](http://www.csiro.au/) and [National Collections and Marine Infrastructure - CSIRO](https://www.csiro.au/en/about/people/business-units/NCMI) 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