# Position Details

## Research Scientist/Engineer- CSOF6

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| The following information is for applicants |
| Advertised Job Title | Research Scientist - Radio Astronomy Scientific Software Developer |
| Job Reference | 100068 |
| Tenure | Indefinite Full-time |
| Salary Range | AU$131,113.00 - AU$153,639.00 per annum (pro-rata for part-time)plus up to 15.4% superannuation |
| Location(s) | Marsfield NSW, Kensington WA |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | All Candidates |
| Position reports to the | Team Leader Calibration and Imaging |
| Client Focus – Internal | 100% |
| Client Focus – External | 0 |
| Number of Direct Reports | 0 |
| Enquire about this job | Stephen.ord@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 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

The role of Research Scientist staff is to conduct innovative research leading to scientific achievements that are aligned with CSIRO’s strategies. The Research Scientist may be engaged in scientific activity ranging from fundamental research to the investigation of specific industry or community problems. The Research Scientist will have the opportunity to build and maintain networks, play a lead role in securing project funds, provide scientific leadership and pursue new ideas and approaches that create new concepts.

As part of the Calibration and Imaging Research and Development team the Research Scientist will conduct innovative research leaving to impactful scientific outcomes in the field of Radio Astronomy at the Australia Telescope National Facility (ATNF).

### Duties and Key Result Areas

* As part of the Calibration and Imaging Research and Development team, under general direction, use professional expertise, knowledge of other disciplines and research experience and achievement to develop and contribute to the scientific products of the facilities of the ATNF, including:
	+ Help deliver the upgrade of the [Australia Telescope Compact Array](https://www.csiro.au/en/about/facilities-collections/atnf/australia-telescope-compact-array).
	+ Contribute to completion of the [ASKAP Science Surveys](https://www.csiro.au/en/about/facilities-collections/atnf/askap-radio-telescope).
	+ Contribute to the development of Scientific Software packages written in C++, C, and Python.
* Develop challenging but realistic research plans and negotiate resource requirements with research managers or clients.
* Take responsibility for smaller research projects or elements of larger projects within and/or across Business Units.
* Anticipate scientific community needs and direction through liaison and networking.
* Undertake feasibility studies, demonstrate a considerable degree of originality, creativity and innovation in solving problems and introduce new directions and approaches.
* Communicate research results to clients and the scientific community through oral and written reports.
* Advise policy makers and inform and transfer knowledge to non-scientific audiences as required.
* 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, regionally dispersed research team to carry out tasks in support of CSIRO’s scientific objectives.
* Adhere to the spirit and practice of CSIRO’s Values, Code of Conduct, Health, Safety and Environment procedures and policy and diversity initiatives.
* Other duties as directed.

## **Selection Criteria**

#### Essential

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

1. A PhD in a relevant field such as Astronomy, Physics or relevant areas of Data and Computer Science.
2. Demonstrated ability to undertake original, creative and innovative research by generating and pursuing novel ideas and solutions to scientific research problems.
3. A demonstrated publication history of authorship on scientific papers in peer reviewed journals and/or reports, grant applications or inventorship on patent applications.
4. A demonstrated history in scientific software development.
5. Knowledge of C++ and object orientated software design and construction.

## **Desirable**

1. Demonstrated history in the development, deployment and maintenance of large-scale high-performance-computing applications.
2. Demonstrated history in Astronomy research or engineering.
3. Experience in Interferometric Imaging and Calibration.
4. Experience with Python package development and deployment.
5. Experience with GPU application development.

## **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:** Identifies critical stakeholders and influences them via an influential third party, for example through an established network, to gain support for sometimes contentious proposals/ideas.
* **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:** Anticipates and manages problems in ambiguous situations. Develops and selects an appropriate course of action and provides for contingencies. Evaluates, interprets and integrates complex bodies of information and draws logical conclusions, synthesises proposals and defends options with reasoned arguments.
* **Independence:** Assesses the risk and opportunity of identified strategies, options and actions. Overcomes problems and setbacks in achieving goals. Invariably includes consideration of value-added future impact on bottom line when determining the optimal and efficient use of resources.
* **Adaptability:**Demonstrates flexibility in thinking and adapts to, and manages, the increasing rate of organisational change by adjusting strategies, goal and priorities.

**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

**About CSIRO**

We solve the greatest challenges through innovative science and technology. Visit [CSIRO Online](http://www.csiro.au/) and [CSIRO Space and Astronomy](https://www.csiro.au/en/research/technology-space/astronomy-space?start=0&count=12) 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