# Position Details

## Research Projects- CSOF6

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| The following information is for applicants | |
| Advertised Job Title | RF Electronics Engineer |
| Job Reference | 90657 |
| Tenure | Specified Term of 3 years  Full-time |
| Salary Range | AU$120,275 – AU$140,940 per annum plus up to 15.4% superannuation |
| Location(s) | Lindfield, NSW |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | Australian Citizens Only |
| Position reports to the | Team Leader – Quantum Systems Integration |
| Client Focus – Internal | 20% |
| Client Focus – External | 80% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Katie Green via email at [katie.green@csiro.au](mailto:katie.green@csiro.au) or phone +61 2 9413 7522 |
| 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).

### 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. At senior levels, Research Projects staff may be involved in providing consulting services, science and technology management and/or industry liaison.

The Quantum Systems Integration team uses CSIRO’s world-leading scientific capability in High Temperature Superconducting (HTS) electronic devices, circuits and sensors to develop advanced magnetometry. The RF Electronics Engineer will join our ground-breaking team, and collaborate in developing quantum sensing technologies for use in a variety of cutting-edge applications. Reporting functionally to a Principal Research Engineer, they will provide practical support essential to the completion of key project deliverables.

The RF Electronics Engineer will be responsible for the design, construction, programming and documentation of electronic control and support systems for research prototypes, including:

* Electronic control and support systems for the various projects
* Testing and validation
* Electronic circuit design/layout
* Procurement of subsystems and liaison with suppliers
* Construction and testing
* Documenting and contributing to internal and client reports
* Participation in and contribution to planning, budgeting and drafting of new proposals
* Preparation for and participation in field trials

### Duties and Key Result Areas

* Apply specialist expertise to solve complex problems within a discipline or across a diverse range of projects.
* Be responsible for activities such as developing and delivering novel technologies, developing and implementing project plans, analysing, validating and reporting results within the constraints of various project plans.
* Extend existing scientific knowledge of experimental design via achievements which facilitate the development of new perspectives in a field, or fields of, research and/or technology.
* Address problems and make critical choices between options that require knowledge of the most recent scientific and/or technological developments or novel methodologies.
* Play a key advisory role in decisions concerning scientific and/or technological direction.
* Identify and adapt quickly to changes in client or project needs and changes in the external environment.
* 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 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, Diversity initiatives and Zero Harm goals.
* Perform other duties as directed.

## **Selection Criteria**

#### Essential

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

1. A tertiary degree in Electronics Engineering, with minimum 4 years of relevant post-qualification work experience or equivalent.
2. Proven ability to design RF signal chain components such as low noise amplifiers, ultra-broad band bias tees and impedance transformation, etc.
3. Strong experience with RF system designs such as I/Q receivers, direction finders, radar, etc.
4. Ability to work from first principals when faced with unusual design challenges.
5. Ability to apply specialist RF systems expertise to solve complex problems within a discipline or across a diverse range of projects.
6. Knowledge and understanding of data logging & graphical data reporting, and the ability to use schematic capture and PC board layout software (Altium Designer preferred).

## **Desirable**

1. Relevant experience in a research environment.
2. Experience and proficiency in programming, data manipulation, and data visualisation using languages such as Python or MATLAB.
3. Ability to program in ANSI-C, C++.
4. Existing NV1 security clearance (or higher).

## **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:** 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, goals and priorities.

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.
* The successful candidate will be required to obtain and maintain a security clearance at the Negative Vetting (NV) Level 1.

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* 1. People First
  2. Further Together
  3. Making it Real
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