# Position Details

## Research Scientist/Engineer- CSOF6

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| The following information is for applicants |
| Advertised Job Title | Earth Observation Specialist - Synthetic Aperture Radar (SAR) |
| Job Reference | 90988 |
| Tenure | Specified Term of 3 years Full-time or Part-time (minimum 0.8 FTE)*(note that visa sponsorship may not be available for part-time appointment)* |
| Salary Range | AU$121k - AU$142k pa (pro-rata for part-time) + up to 15.4% superannuation |
| Location(s) | Perth, Western Australia (preferred), other locations considered |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | All candidates |
| Position reports to the | Director, Centre for Earth Observation |
| Client Focus – Internal | 70% |
| Client Focus – External | 30% |
| Number of Direct Reports | 0 |
| Enquire about this job | Amy Parker via email Amy.Parker@csiro.au or phone +61 8 6436 8851 |
| 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 Earth Observation Specialist – Synthetic Aperture Radar (SAR) provides expertise in the use of SAR data (such as the use of backscatter for flood mapping and vegetation monitoring, and/or interferometry and polarimetry) to support the delivery of national and international Earth observation projects. This includes the implementation of SAR data analysis on CSIRO’s Open Data Cube technology, the Earth Analytics, Science and Innovation hub – EASI.

This position will interface between scientists from across CSIRO and from external partners in government and industry, to engage in scientific activity ranging from fundamental research to the investigation of specific industry or community problems. Working with the Director, Centre for Earth Observation, the role provides an opportunity to build and maintain national and international networks. The Earth Observation Specialist - SAR will also play a lead role in securing new project funds and clients, and in providing a new generation of Earth observation solutions to deliver direct impact for CSIRO and our partners.

The Earth Observation Specialist - SAR leads small projects and/or project teams to conduct innovative research that will lead to scientific achievements aligned with CSIRO’s strategies. The role will demonstrate scientific excellence through the delivery of high-quality research outputs, including peer reviewed publications. The Earth Observation Specialist – SAR contributes to effective briefing, training and presentation materials for scientific and general audiences.

The CSIRO Centre for Earth Observation is part of the CSIRO Space Program, which seeks to apply the opportunities of space to solve the greatest national challenges including drought, water, climate change and disasters. To support this objective, the Centre for Earth Observation is seeking to build capacity in the use of Synthetic Aperture Radar (SAR), including from the satellite NovaSAR-1, for which the CSIRO Space Program operates a 10% share on behalf of Australia.

### Duties and Key Result Areas

* Develop and implement SAR data analysis techniques to support delivery of national and international projects.
* Develop networks across CSIRO to identify new opportunities for NovaSAR-1 and other SAR datasets to contribute to environmental monitoring strategies.
* Secure new collaboration and funding opportunities with external partners.
* 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.
* Lead small project teams to ensure outcomes are completed within the agreed timeframes and budget.
* Contribute to briefing, training and presentation materials for scientific and general audiences.
* Communicate research results to clients, the scientific community and non-scientific audiences through oral and written reports.
* 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, 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. A PhD (or an equivalent combination of qualifications and research experience) in a relevant field such as remote sensing, environmental or marine 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. Demonstrated skills in one or more of the following: SAR backscatter, interferometric SAR, polarimetric SAR.
5. Proven strong communication skills for scientific and non-scientific audiences, such as delivering training, writing articles, writing briefs, delivering keynote presentations.
6. Proven experience managing projects and/or project teams to deliver outcomes.
7. Strong coding skills and familiarity with Earth observation data processing and visualisation packages.

## **Desirable**

1. Demonstrated experience in the use of Open Data Cube technology.
2. Experience negotiating contracts and delivering projects for external clients.
3. Experience working with international groups across cultures.
4. Experience with other Earth observation datasets.
5. Experience working with diverse stakeholders including government and industry.

## **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

* 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 the [Centre for Earth Observation](https://research.csiro.au/cceo/) 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