# Position Details

## Research Projects- CSOF5

|  |  |
| --- | --- |
| The following information is for applicants | |
| Advertised Job Title | Senior Software Engineer - Telescope Control Systems |
| Job Reference | 84516 |
| Tenure | Indefinite  Full-time, Part-time, or Job-share (min hours required) |
| Salary Range | AU$102k - AU$111k per annum (pro-rata for part-time)  plus up to 15.4% superannuation |
| Location(s) | Parkes, New South Wales or Narrabri, New South Wales Sydney (Marsfield), New South Wales considered |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | * Australian/New Zealand Citizens and Australian Permanent Residents |
| Position reports to the | Team Leader, Telescope Monitoring and Control |
| Client Focus – Internal | 100% |
| Client Focus – External | 0% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Zoe Taylor via email at Zoe.Taylor@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. |

### 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.

Space & Astronomy (S&A) maintains existing telescopes Parkes and Australian Telescope Compact Array (ATCA) and is also completing instrumentation of the Australian SKA Pathfinder (ASKAP) telescope at the Murchison Radio-astronomy Observatory (MRO) in mid-west WA.  
S&A requires a Control Systems Software Engineer to develop and maintain Monitoring and Control System software for its radio telescopes. The a focus of this role would be at Parkes and ATCA.

### Duties and Key Result Areas

* Design, develop and adapt systems and software, requiring high levels of initiative, ingenuity and skills.
* Lead teams and/or collaborate with staff from other teams in meeting their objectives as required.
* Development, testing and support of monitoring and control interfaces implemented in EPICS.
* Collaboration with engineers on specifying and maintaining interfaces.
* Active support of monitoring and control software.
* Liaise with clients to determine their needs and take personal responsibility for client satisfaction.
* Address problems promptly and in a constructive manner.
* Participate in work which is highly involved because of the unique or unusual features and complications, requiring the creation of original user experiences, the design & development of original technologies, and/or the development of original experimental or observational techniques and insightful interpretation of data.
* Participate in project scoping and planning, making significant contributions to the research or technological direction, and may advise on the level and type of services that are provided.
* 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, Diversity initiatives and Making Safety Personal goals.
* Other duties as directed.

## **Selection Criteria**

#### Essential

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

1. Relevant Bachelors/Masters degree or equivalent experience in Engineering, Computer Science or related disciplines.
2. Experience developing control and monitoring software for hardware devices.
3. Experience with embedded systems.
4. Applied knowledge of software development processes including source control management and issue tracking.
5. Strong applied knowledge of software development in C++.
6. Working knowledge of Python.
7. Adept Linux user (e.g. Debian or Debian based systems)
8. The ability to work effectively as part of a multi-disciplinary, regionally dispersed research team, and carry out tasks autonomously in support of scientific research.
9. Demonstrated ability & willingness to contribute novel ideas and approaches in support of scientific investigations.

## **Desirable**

1. Experience implementing control system solutions using EPICS and/or TANGO.
2. Experience with communication protocols such as SNMP or Modbus
3. Experience developing in Java
4. Experience developing in Python
5. Previous work in Agile environments (e.g. SCRUM, KANBAN)
6. Jira and Confluence
7. Version control systems (e.g. Git, Subversion)

## **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.

## **About CSIRO**

We solve the greatest challenges through innovative science and technology. Visit [CSIRO Online](http://www.csiro.au/) 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