

Position Details

Research Projects – CSOF7

THE FOLLOWING INFORMATION IS FOR APPLICANTS	
Advertised Job Title	Lead Telescope Operations Engineer – SKA-Low Telescope
Job Reference	103313
Tenure and work schedule	Indefinite Full-Time, Part-Time or Job-Share
Salary Range	AU\$163,199 to AU\$180,568 per annum, plus 15.4% superannuation <i>Salary Range can be negotiable where necessary to meet market rates</i>
Location(s) and office arrangements	Geraldton, Western Australia (preferred); or Perth, WA can be considered
Relocation Assistance	Will be provided to the successful candidate if required
Applications are open to	All Candidates (visa sponsorship may be offered to the successful candidate if required)
Position reports to the	This position will report to the SKA-Low Head of Engineering Operations
Client Focus – Internal	80%
Client Focus – External	20%
Number of Direct Reports	3
Enquire about this job	Contact Callum Jones, SKA-Low Head of Engineering Operations, via Callum.Jones@skao.int
Support and workplace adjustments	We offer a range of reasonable supports and workplace adjustments. Please let us know via email Piumi.Desilva@csiro.au (Piumi De Silva – Talent Acquisition Partner), or careers.online@csiro.au , if we can help you to equitably participate in our recruitment process or the role itself.
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

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](#).

About CSIRO

As Australia's national science agency, CSIRO is solving the greatest challenges through innovative science and technology. Many of our iconic innovations were once considered impossible until someone, just like you, joined us and took on the challenge.

As one of the world's largest multidisciplinary mission-driven research organisations, we are focused on the issues that matter the most: for our quality of life, for the economy and for our environment. We believe diverse teams are more effective and deliver more innovative outcomes. When we all focus on the big things that really matter, and work in partnership with our communities and [Indigenous Australia](#), Australian science and technology can solve seemingly impossible problems and create new value for all Australians. Visit [CSIRO.au](https://www.csiro.au) for more information.

Background

The SKA Observatory (SKAO) is a global, next-generation radio astronomy facility that will revolutionise our understanding of the Universe.

The SKAO's two telescopes – SKA-Low in Western Australia and SKA-Mid in South Africa, will deliver more than half a century of transformational science for the international community. The SKA telescopes promise to have a major impact on society, in science and beyond, including developing new technologies that will deliver significant benefits to our everyday lives. By constructing and operating these advanced telescopes, the SKA Observatory will become the world leader in radio astronomy, providing unparalleled research capabilities for decades.

The SKAO is an intergovernmental organisation of 16 member and participating countries, with global headquarters in the UK.

In Australia, the SKAO is partnering with CSIRO, Australia's national science agency, to construct and operate the SKA-Low telescope.

SKA-Low teams work across three sites:

- Inyarrimanha Ilgari Bundara, the CSIRO Murchison Radio-astronomy Observatory on Wajarri Yamaji Country.
- Our Engineering Operations Centre on Nhanhangardi, Naaguja, Wilyny and Amangu Country in Geraldton.
- Our Science Operations Centre on Whadjuk Noongar Country in Perth.

Further Reading: [Explore CSIRO and the SKA-Low Telescope project](#)

Role Overview

Reporting to the Head of Engineering Operations, the Lead Telescope Operations Engineer provides strategic technical leadership for the operation, performance and sustainment of SKA-Low. Leading the Telescope Operations Engineering team, the role is accountable for optimising observatory performance across the telescope's analogue and digital signal chain, ensuring systems are operated, maintained and continually improved to maximise scientific productivity, reliability and availability.

As the senior engineering authority for telescope operations, the Lead Telescope Operations Engineer maintains a systems-level understanding of the end-to-end telescope and supporting infrastructure. The role provides technical leadership for complex operational issues, major

incidents and multidisciplinary investigations, balancing operational priorities, engineering risk and science outcomes to ensure the effective operation of the observatory.

Working closely with engineering, operations, software, infrastructure, science and international Observatory stakeholders, the role provides authoritative technical advice and drives continual improvement of telescope performance and operational capability. The successful applicant will be recognised for their technical expertise, leadership, sound engineering judgement and ability to solve complex system-level problems across hardware, software and firmware domains.

This role will require occasional interstate and international travel. CSIRO and the SKA Observatory are committed to fostering an inclusive and flexible workplace and welcome discussions regarding flexible working arrangements, including full-time, part-time or job-share options.

Duties and Key Result Areas

- Provide authoritative technical leadership for the operational performance, reliability, availability, maintainability and continuous improvement of the SKA-Low telescope and its supporting systems, ensuring the Observatory consistently delivers world-class scientific outcomes.
- Serve as the senior engineering authority for telescope operations, maintaining a comprehensive systems-level understanding of the end-to-end telescope signal chain and supporting infrastructure, and applying expert judgement to resolve highly complex, novel and multidisciplinary challenges.
- Act as the highest operational engineering escalation point for major incidents, performance degradations and systemic issues, leading technical response activities, directing investigations across engineering disciplines, and driving timely resolution to minimise operational impact.
- Provide strategic oversight of observatory performance, identifying opportunities to optimise reliability, availability, maintainability and operational efficiency, and translating these into sustainable engineering and operational improvements.
- Lead engineering assurance and operational risk management activities, ensuring technical risks are appropriately identified, assessed, mitigated and communicated to support informed operational and organisational decision-making.
- Influence the technical direction and operational readiness of telescope systems, providing expert input to system design, integration, commissioning, upgrades and lifecycle management activities to ensure operational requirements and long-term maintainability are achieved.
- Lead, mentor and develop a high-performing Telescope Operations Engineering team, fostering technical excellence, accountability, collaboration and continuous learning across multidisciplinary and geographically dispersed teams.
- Build and maintain effective relationships with internal and external stakeholders, including Observatory Operations, Engineering, Science Operations, projects, contractors and industry partners, to align priorities and achieve operational objectives.
- Provide trusted technical advice to senior management, contributing to strategic planning, investment decisions, technical reviews and organisational priorities affecting SKA-Low operations.
- Drive long-term operational capability development, anticipating emerging technical, operational and organisational challenges and establishing strategies, roadmaps and

improvement programs that support the sustainable growth and evolution of the Observatory.

- Represent Engineering Operations as a recognised technical leader, contributing to professional networks, technical communities, reviews and stakeholder engagements, and promoting engineering excellence across SKA-Low and the broader organisation.
- Ensure all activities are conducted in accordance with applicable safety, quality, governance and regulatory requirements, supporting a culture of operational excellence, accountability and continuous improvement.
- Demonstrate and promote the values and behaviours of SKAO and CSIRO, including adherence to the Code of Conduct, health, safety and environment requirements, diversity and inclusion principles, and zero-harm objectives.
- Other duties as directed.

Selection Criteria

CSIRO is an Equal Opportunity employer working hard to recruit world-class talent that represents the diversity across our society. As part of our commitment to equitable employment outcomes for under-represented groups, preference will be given to Aboriginal and Torres Strait Islander people who meet the role criteria. CSIRO conscious inclusion practices are intended to constitute a special/equal opportunity/affirmative measure under *section 8(1) of the Racial Discrimination Act 1975 (Cth)*.

Essential

Under CSIRO policy, only those who are able to demonstrate how they can meet all the essential criteria may be appointed.

1. **Qualifications and Technical Leadership** – A degree in Electrical, Electronic, Telecommunications, RF, Systems Engineering or a related discipline, and/or equivalent demonstrated experience. Post-graduate qualifications are desirable but not essential. Recognised as a senior engineering authority with a demonstrated ability to provide systems-level leadership, strategic technical direction and authoritative advice within complex multidisciplinary engineering and operational environments.
2. **People and Operational Leadership** – Demonstrated success leading multidisciplinary technical teams and engineering operations within complex technical, scientific, industrial or infrastructure environments, including accountability for operational performance, service delivery, asset sustainment, risk management and continuous improvement.
3. **Engineering Judgement and Problem Solving** – Demonstrated ability to resolve highly complex and strategically significant engineering and operational challenges, applying sound engineering judgement, systems thinking and technical leadership to balance operational priorities, risk, performance and organisational objectives.
4. **Engineering Governance, Safety and Risk Management** – Demonstrated expertise in applying systems engineering, reliability engineering, safety assurance, risk management principles and relevant engineering standards to complex engineering systems, delivering improved operational performance, resilience and assurance outcomes.
5. **Strategic Influence and Stakeholder Engagement** – Demonstrated ability to influence engineering governance, technical strategy and organisational decision-making, communicate complex technical concepts to diverse audiences, and build effective relationships across engineering, operations, science, project and executive stakeholders.

6. **Professional Accreditation** – Chartered Professional Engineer (CPEng) status, or eligibility and commitment to obtain Chartered status within an agreed timeframe.

Desirable

1. Experience within radio astronomy, observatory operations, telecommunications, defence, space, or other complex mission-critical engineering environments.
2. Experience with computerised maintenance management systems (CMMS), asset management, configuration management, reliability engineering and operational performance reporting systems.
3. Familiarity with modelling, simulation and engineering analysis tools, such as MATLAB, Simulink, Python or equivalent.
4. Demonstrated experience in reliability-centred maintenance, major incident management, root cause analysis and continuous improvement.
5. Demonstrated ability to mentor, coach and develop engineers and technical specialists, including supporting the growth of future technical leaders.

Not sure if you meet all the criteria?

While it is CSIRO policy that the successful candidate must meet all the essential criteria, there are many ways to demonstrate this. Don't let the list discourage you. If you are unsure about applying, please reach out to the contact on page 1 of this document so we can discuss the role further.

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. Creates and fosters an environment in which there is a high level of cooperation within and between teams. Facilitates positive team relationships to build interactions across Business Units and the organisation.
- **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:** Provides leadership that fosters an environment that encourages new ideas and provides support for the development of emerging skills. Creates trust by displaying consistency and understanding through integrity and patience. Plans, seeks, allocates and monitors resources to achieve outcomes.
- **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:** Is flexible in response to external change or when faced with external constraints. Identified and promotes the opportunities arising as a result of change.

Setting you up for success

We understand that not everyone works in the same way and sometimes people may require reasonable support and adjustments to perform at their best. Whether related to the recruitment process and or the role itself, this may include options such as providing different methods of communication, flexible hours or physical adjustments to work methods. If you feel comfortable, we encourage you to share any support and adjustments you may need to carry out the inherent requirements of the role. Please let us know via email Piumi.Desilva@csiro.au (Piumi De Silva – Talent Acquisition Partner), or careers.online@csiro.au, if we can help you to equitably participate in our recruitment process or the role itself.

Life at CSIRO and flexible working arrangements

We work flexibly at CSIRO, offering a range of options for how, when and where you work. We can discuss flexible work arrangements with you during the recruitment process. CSIRO also offers a range of leave entitlements, benefits and career development opportunities. To learn more, visit Careers at CSIRO.

We celebrate the uniqueness of our workforce and are committed to creating diverse and inclusive teams where everyone feels they belong. CSIRO is an equal employment opportunity organisation dedicated to recruiting people based on merit, and reflecting the diversity of the community we serve. We recognise true diversity encompasses all ages, nationalities, abilities, cultures, genders, sexualities, faiths, levels of education, diversity of thought and many more aspects of identity. By empowering diverse teams, our community is reflected in the solutions we create.

CSIRO values

Visit CSIRO Online, Space and Astronomy, SKAO online and SKAO Location for more information. In your application and at interview you will need to demonstrate behaviours aligned to our values of:

CSIRO	SKA Observatory
• People First • Further Together • Making it Real • Trusted	• Diversity and Inclusion • Excellence • Collaboration • Creativity and Innovation • Sustainability and Safety

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.

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.
- The successful candidate will be required to undertake a **pre-employment medical examination** prior to commencement.
- 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/>