# Senior Radio Frequency Electronic Technician/Engineer

|  |  |
| --- | --- |
| Advertised Job Title**:** | Senior Radio Frequency Electronic Technician/Engineer |
| Reference Number**:** | 58138 |
| Classification**:** | CSOF 5 |
| Salary Range: | AU $95,369 to AU $103,205 plus up to 15.4% superannuation |
| Location**:** | New Norcia Ground Station, Western Australia |
| Tenure: | Indefinite |
| Relocation Assistance**:** | Will be provided to the successful candidate if required. |
| Applications Are Open To: | Australian Citizens and Permanent Residents |
| Functional Area**:** | Technical Services |
| Reports To: | M+O Manager |
| Number of Direct Reports: | TBA |

|  |
| --- |
| **Role Overview:** |
| The New Norcia Ground Station supports ground-based spacecraft telecommunications as part of the European Space Agency’s Tracking Stations Network (ESTRACK), under proposed contractual arrangements between ESA and Commonwealth Scientific Industrial Research Organisation (CSIRO).  The Senior Radio Frequency Technician provides specialist technical support of radio frequency systems including microwave, transmitter, receiver, exciter frequency, cryogenic and timing systems. The position is responsible for organising RF maintenance activities on antennas, providing support in antenna RF systems and cryogenic systems, routine and corrective maintenance, assisting with technical planning, minor project and contractor management and technical back up to Senior Digital Electronics Technician/Engineer. |

|  |
| --- |
| **Duties and Key Result Areas:** |
| * Communicate effectively and respectfully with all staff, clients and suppliers in the interests of good business practice, collaboration and enhancement of CSIRO’s reputation. * Work as part of a multi-disciplinary, often regionally dispersed team, to carry out tasks autonomously in support of scientific research. * Perform maintenance and installation activities, to ESA or manufacturers’ specifications, including: * Commissioning, upgrading, testing, calibration and repair of equipment and subsystems. * Complete planned maintenance work orders as generated by maintenance routine. * Installation of new and upgraded operational software. * Operational software programme maintenance and system administration in a secure networked computer environment.   + Respond to faults, complaints, audits, investigations and incident reports. * Provide support to the maintenance of electronic equipment in other flight support areas. * Provide out of hours emergency support via telephone analysis where possible and attend onsite for diagnostics and repairs where necessary. * Liaise with internal and external customers, including local, CSIRO, and ESA personnel. Work co-operatively with these same organisations to converge on solutions to problems or deficiencies. * Provide mentoring to junior Electronic Systems technicians. * Use established reporting tools and procedures to provide comprehensive reports. * Utilise UNIX and Windows based tools in support of these systems. * Identify potential spares issues and if necessary determine suitable replacement parts and locate source of supply. * Provide specialist technical support of radio frequency systems including microwave, transmitter receiver, exciter frequency, cryogenic and timing systems. * Perform investigation of operational incidents and anomalies including root cause analysis. * Provides equipment level specialist support following ESA equipment specific training. * RF safety checks and compliance with ARPANSA requirements in coordination with designated CSIRO Radiation Safety Officer. * Regarding Spectrum matters, ensure co-ordination of local activities such as special events and RFI interference issues. Work with Spectrum Management lead designated by ESA/CSIRO in order to ensure that ESA’s interests local and national are protected and maintained. * Provide support in project management of specific tasks including: * Supervising contract staff on site on specific project tasks. * Provide technical guidance to contractors and information required for the proper interfacing of new or upgraded systems.   + - Provide support for configuration management including: * Assist and advise in the management of system drawings and schematics to reflect as-installed configurations. * Maintain appropriate recordkeeping and other tools for version control of hardware/software in use in the systems. * Participate in and provide support for system performance testing, data capture and analysis to assist with ESA development work and anomaly resolution. * Provide local support and facilitate the coordination, implementation and testing of ESA engineered solutions. * Technology assessment and practical evaluation, contributing to specification preparation for future enhancements and planning for future upgrades. * Use Computerised Maintenance and Management System (CMMS) based tools to maintain and improve where possible maintenance efficiencies and reliability of systems. * Participate in planning meetings. * Perform maintenance and installation activities while working at height or within confined spaces * Adhere to the spirit and practice of CSIRO’s Values, Health, Safety and Environment plans and policies, Diversity initiatives and Zero Harm goals. * Other duties as directed. |

|  |
| --- |
| **Selection Criteria:** |
| ***Pre-Requisites:***   1. **Education/Qualifications:** Diploma in Electronics & Communications or equivalent with more than 7 years’ experience in repair maintenance, installation and diagnosis of electronics and RF equipment. 2. **Other Certifications:** Current Driver’s License. Elevated Work Platform, Construction White Card (WA equivalent).   *Please note:* *Under CSIRO policy only those who meet all essential criteria can be appointed*  ***Essential Criteria:***   1. Proficient in system performance and integration testing of electronic equipment. 2. Proficient in the use of RF measurement equipment 3. Ability to read and understand highly complex electronic schematics. 4. The ability to work effectively as part of a multi-disciplinary, regionally dispersed team, and carry out tasks autonomously. 5. Excellent communication skills, both written and oral, including the ability to anticipate the interests and knowledge level of an audience and present information and feedback accordingly. 6. Demonstrated ability to effectively manage a number of competing priorities simultaneously, and carry out non-routine tasks under broad direction from relevant technical staff.   **Desirable Criteria:**   1. Willing to undertake HV awareness training for HV aspects of RF transmitter operation and maintenance. 2. Experience in signal reception /transmission at S, X and Ka-Band (New Norcia ground Station) to IF for Modulation/Demodulation. In particular:    1. Signal propagation and space to ground link budget.    2. Knowledge of RF measurement (e.g. G/T, EIRP).    3. Understanding of frequency conversion techniques and signal measurement techniques (e.g. spectrum analyser). 3. Practical experience of cryogenic receiver techniques. 4. Practical experience in high power amplifier techniques.   ***Special Requirements:***  Appointment to this role may be subject to conditions including security/medical/character clearance requirements. You must also be willing and able to:   1. Work to a call out roster for all technical staff to provide out of hours coverage for critical equipment failures 2. Support pre planned out of hours critical tracking events |

|  |
| --- |
| **Other Information:** |
| **To express your interest:** Please go to <https://jobs@csiro.au> and enter reference 58138 and click **Apply**. First create a profile, then upload your resume and cover letter. In your cover letter please tell us how your skills, knowledge and experience meet the selection criteria.  If after reading the Position Description you require further information please contact Lesley Kliska at [lesley.kliska@csiro.au](mailto:lesley.kliska@csiro.au). Please note: applications sent to Mrs Kliska may not be considered.  If you experience difficulties applying online please call 1300 984 220 for assistance or email:   [csiro-careers@csiro.au](mailto:csiro-careers@csiro.au).  *We work flexibly at CSIRO, offering a range of options for how, when and where you work. Talk to us about how this role could be flexible for you.*  *Find out more!*[*CSIRO Balance*](https://www.csiro.au/en/Careers/A-great-place-to-work/Work-life-balance)  **About CSIRO**  At CSIRO, we do the extraordinary every day. We innovate for tomorrow and help improve today - for our customers, all Australians and the world.  We imagine. We collaborate. We innovate. |