

ADVERTISEMENT

Senior System Engineer

Contract type: Permanent

Job Level: Skilled / Middle Management

Work Location: Cape Town, Western Cape

Applications:

Applicants should submit a comprehensive CV to recruitment@tianaconsulting.co.za. Applications should be accompanied by a letter of motivation indicating the applicant's suitability for the position. The names and contact details of at least three referees should be provided.

Closing Date: 08 August 2024

Key Responsibilities:

- * Responsible for all SKA-Mid systems engineering elements of design and development through to integration, test & verification.
- * Co-ordinate all the systems engineering activities and interfaces across all the SKA-Mid elements, ensuring compliance with requirements.
- * Lead the definition of architectures and solutions derived from vague or abstract requirements.
- * Responsible for the baselines and design configuration of the SARAO responsible SKA-Mid elements, including leading and managing engineering changes to the baselines.
- * Provide field engineering services for telescopes and sub-systems to aid in fault diagnostics and rectification
- * Review and integrate multiple activity reports into system level analysis and reports to ensure quality and integrity of results and recommendations within uncertain contexts.
- * Coach or mentor up to 5 young engineers in the field of engineering and specifically systems engineering.
- * Use experience to employ innovative and unique methods and techniques to improve the efficiency and integrity of the systems engineering outcomes.
- * Advance the maturity of systems and products through application of recognised engineering competence and skills.
- * Provide systems engineering support across multiple domains, teams and on multiple products, subsystems and systems.
- * Contribute to- and advance- organisational maturity through leading the development and implementation of engineering processes within his/her realm of responsibility.
- * Contribute to strategic leadership within Programme(s) and SARAO through experience-based inputs and conceptual/strategic thinking.

Key Requirements:

Qualification:

- * B.Tech (Eng) with 13+ years RELEVANT experience; OR
- * B.Eng/B.Sc (Eng) with 9+ years RELEVANT experience; OR
- * M.Eng/M.Sc (Eng) with 7+ years RELEVANT experience; OR
- * PhD/D.Eng with 5+ years RELEVANT experience.
- * Meet the requirements for registration with ECSA as PrEng.

Experience:

- * Systems Engineering and development of Radio Astronomy Telescopes, specifically the SKA-Mid.
- * General advanced applied Systems Engineering
- * Integration, test and verification of radio astronomy telescopes
- * Baseline establishment and management, specifically leading design reviews.
- * Engineering Change control

- * RF for radio astronomy product development
- * Use of Computer-aided Systems Engineering Tools (e.g. CORE)
- * Development of systems engineering processes and procedures
- * Coaching and mentoring

Knowledge:

- * In-depth knowledge of the SKA-Mid Telescope requirements.
- * In depth knowledge of the SKA-Mid Dish element design & performance.
- * Acknowledged in-depth competence in systems engineering, technology and/or software.
- * Configuration management and configuration management systems
- * Systems Engineering Standards, e.g. ISO/IEC/IEEE 15288 & 15289,
- * Knowledge of the PFMA and related procurement regulations

Additional Notes:

Operate independently or lead teams to deliver systems engineering, typically at all levels of the systems hierarchy.

Undertake engineering activities throughout all lifecycle phases of the system under development, with particular focus on the concurrent engineering aspects and the design for supportability aspects.

Lead engineering tasks and analysis without supervision.

Function simultaneously across multiple domains, teams and on multiple systems.

Lead the development and implementation of engineering processes.

Use advanced interpersonal skills in order to influence change in complex systems behaviour and operational environments.

The Senior Systems Engineer will operate within a matrix engineering organization and thus be deployed between various projects and teams with different specific roles as dictated by the current organizational needs.

CSEP accreditation will be an advantage