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Operations Scientist /SAFe® Product Manager (10116)

Job Location：UK (Head Office)

Area / Department：Telescope Operations

Contract Type：Permanent

Salary：Competitive salary with generous pension and leave benefits

Closing Date：02/04/2021

Ref No：10116

At SKAO we are coordinating a global effort to deliver the largest science facility on the planet. The SKA will be a next-generation radio telescope that will help to answer key questions in astrophysics, drive technological innovation and support human capital development.

More than a dozen partner countries and over a thousand scientists and engineers around the world are already on board, making the SKA an international collaboration like no other, and one of the most ambitious science and engineering endeavours of the 21st century.

Headquartered in the UK, with telescope sites in Australia and South Africa, it will be one observatory operating two telescopes, an endeavour spanning three continents. Multinational by design, SKAO will soon join only a handful of other science infrastructures in becoming an intergovernmental organisation.

Our Global HQ is located near the buzzing city of Manchester at the historic Jodrell Bank Observatory, a UNESCO World Heritage site located in the Cheshire countryside. It is home to a rapidly expanding international team of more than a hundred, working in a highly collaborative and inclusive way, in coordination with SKA teams in Australia and South Africa as part of a global astronomy and engineering community.

Being part of Team SKA means contributing to something extraordinary: a uniquely exciting project to advance human knowledge that will last for decades. In return, we offer a diverse multicultural working environment, 30 days annual leave plus public holidays, a generous pension scheme, regular social events, a family-friendly environment and much more. Come and join us!

An ideal opportunity for a candidate with experience of software development and/or telescope operations to be part of a unique international project.

The Role

The SKA Operations Group is seeking to employ a talented and motivated person to act as a Product Manager to support and guide the software development for the construction of the SKA telescopes. As a large and globally distributed project, the software is being developed by many teams across different time zones from outside of the SKA Observatory.
The appointee will be an expert focal point for the development teams, providing expertise and guidance to those teams in areas of Observation Management. The role, therefore, calls for an organised person who understands, or is able to quickly acquire, system knowledge in the area of (radio) astronomy telescopes and their operation.
To manage the software development of the project, the SKA has adopted the Scaled Agile Framework (SAFe®) for Lean/Agile development processes. As a Product Manager, the appointee will represent the interests and priorities of the SKA Operations team for the construction and operation of the SKA telescopes. They will be responsible for ensuring that the SAFe teams deliver value to the SKA by specifying and defining the priorities of the work and developing the programme roadmap. As a Product Manager they will have the responsibility for defining work, and assessing when it is completed, and accepting that work into the Programme. As such, the appointee will need to understand software development practices and technology.
Although the appointee will be a member of the Operations Group, they will spend the majority of their time working closely with the software development SAFe teams.
Full-time hours will be 35 hours per week. Flexible working arrangements are possible in agreement with the Line Manager, as long as contributions to telescope delivery are not impacted.

Key Responsibilities, Accountabilities and Duties

Working as a member of the SAFe Product Management team with key internal and external SKA stakeholders, including the Lead Software Product Manager, the Head of Science Operations, and the SKA System Scientist, the post holder will:

* Contribute to the Product Management Team in the development and communication of the vision and roadmap for the SKA Observatory’s software development programme to all relevant stakeholders.
* Contribute to the Operations group, engaging with the Science Operations and Data Operations teams to understand their priorities in the development of the roadmap.
* Develop Features aligned with the vision and roadmap and enter them into the SAFe Program Backlog.
* Engage with the teams to define Program Backlog items. Clarify Backlog items and confirm their understanding within the development teams.
* Define acceptance criteria for the work under their ownership and be responsible for accepting the results of the work carried out.
* Be an expert stakeholder for the development teams with respect to issues regarding Observation Management.
* Attend SAFe Program Increment (PI) planning meetings (every 3 months) to prioritise and plan future work and report on work carried out.
* Provide inputs to define and prioritise the content of the SAFe Program Backlog in collaboration with the Product Management team.
* Work with stakeholders to understand and define SKA Programme objectives.

Mandatory Knowledge, Skills and Experience

The post holder will have:

* A PhD, or equivalent, in Astronomy, Physics, Computer Science or a closely related field, or equivalent experience in a professional scientific operational capacity.
* Significant experience in software development in a scientific environment, preferably in a (radio) astronomy setting, or equivalent, with an end-user perspective.
* Experience with the operation of (radio) observatories, science operations and observation management, from proposal management and handling through to the execution of science projects on the telescope.
* The ability  to resolve multifaceted and complex problems, developing coherent solutions and managing workloads and targets in a dynamic and collaborative environment.
* The ability to build effective working relationships and influence with engineers and scientists from a variety of cultures.
* The capability to work in a team as a flexible, adaptable team player, able to work to deadlines.
* Excellent communication skills in English, especially within multicultural teams, able to translate technical concepts into clear guidance and advice.
* The ability to accommodate occasional travel, nationally and internationally (typically 1 week, 3 or 4 times a year, and subject to current international travel limitations).

Desirable Knowledge, Skills and Experience

* Experience in a similar role within a Software Development Project in a Scientific/Astronomical environment.
* Agile certification (Scaled Agile Program Consultant, BCS Agile Practitioner certification, or similar).
* Project management experience in a software development environment.

Equal Opportunities Statement

Equality, Diversity and Inclusion are at the core of the SKA's agenda and we are committed to being an equal opportunities employer. Our aim is to recruit and retain the most talented individuals, regardless of gender, race, disability, age, sexual orientation, marital status, religion or nationality.

Women have traditionally been under-represented in the fields of science and engineering; SKA Organisation welcomes and encourages female applicants.

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Mechanical Engineer (10118)

Job Location：South Africa

Area / Department：Engineering and Project Management

Contract Type：Permanent

Salary：Competitive salary with generous pension and leave benefits

Closing Date：26/03/2021

Ref No：10118

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Preparation by the SKA member countries to establish the SKA Observatory as an Inter-Governmental Organisation is well advanced; the SKA Observatory is expected to be established by early 2021 and construction of SKA-Low in Western Australia and SKA-Mid in South Africa is expected to begin later that year. The start of the ramp up of SKA Operations staff in Australia and in South Africa will also begin in 2021, and the transition of the observatory from the Construction Phase to the Operations Phase is planned for 2028.

SKA Operations in South Africa will be conducted in partnership with the South African Radio Astronomy Observatory (SARAO). SKA Operations in Australia will be conducted in partnership with the Commonwealth Scientific and Industrial Research Organisation (CSIRO). The Observatory will also partner closely with a global network of SKA Regional Centres through which SKA users will access science data products and a suite of tools and resources to further analyse SKA data.

The SKA Observatory offers a competitive salary and a generous pension and benefits package. As an employee of an Inter-Governmental Organisation, an appointee who is not a national of the country in which the role is based may be subject to personal Privileges and Immunities.

A unique opportunity for a mechanical engineer with experience in design, integration and verification of large precision motion systems and structure to support the delivery of a ground-breaking scientific facility.

The Role

**Role based in South Africa**

The Mechanical Engineer will be part of the Domain Specialists group, a diverse and experienced team within SKAO.

The Mechanical Engineer will work primarily with the Dish Product Delivery Team (PDT) which is responsible for delivering the antenna system of the SKA MID-Telescope. The Mechanical Engineer will act as technical authority providing engineering support and technical leadership at all levels of the project through formal design reviews; detailed technical assessment; identification and resolution of design issues; verification and qualification of sub-systems and systems; and telescope integration and commissioning activities.

Full-time hours will be 35 hours per week. Flexible working may be considered compatible with reviews, milestones and site activities.

Key Responsibilities, Accountabilities and Duties

* Provide technical leadership in the area of Mechanical Engineering for the SKA telescope, as a member of the Domain Specialist Team (DST), providing technical guidance and advice both at system level and product level.
* Work with Dish Project Manager and stakeholders across and outside the organisation to support and supervise the delivery of the Dish Structure through its lifecycle during pre-construction, tendering, procurement, construction and verification phases.
* Identify and manage technical issues through engineering analysis and verification.
* Review and recommend changes to designs and products to ensure compliance with requirements and standards.
* Participate in and lead project design and product acceptance reviews.
* Develop and maintain relationships and communication with key stakeholders to ensure effective delivery of engineering activities.
* Support and advise on system design and verification work for the MID Dish Structure.
* Identify, assess and understand any potential safety and security implications of proposed activities, taking relevant action to ensure a safe and secure working environment for all.
* Share learning to contribute to the development of SKAO capability.
* Undertake any other reasonable duties as directed by the SKA Project Engineer or a member of SKA Organisation Senior Management.
* Occasional national and international travel, such as visits to site (within South Africa) and dish manufacturer to support the telescope construction (usually for 1-2 weeks a few times per year as required).

Mandatory Knowledge, Skills and Experience

* University degree in Engineering or another closely related and relevant field, or equivalent experience.
* Demonstrable experience (typically up to 5 years) in the mechanical engineering of large development projects.
* Solid theoretical knowledge of fundamental mechanical engineering principles.
* Proven working experience with FEA modelling and CAD packages.
* Working experience with motion systems and components such as motors, gearboxes and control systems.
* Experience in realisation and production of precision steel (or composite) structures such as: telescopes, large antennas for telecommunication systems, radars.
* Experience with qualification, testing preparation, witnessing and problems solving.
* Familiarity with system engineering principles for deriving and verifying requirements as well as maintaining interfaces.
* Ability to influence to ensure delivery of joined up solutions, working effectively with engineers and scientists in a multi-cultural environment.
* A flexible team player adaptable to change.
* Good English verbal and written communication skills.
* Willingness to travel nationally and internationally as required (usually for 1-2 weeks a few times per year).

Desirable Knowledge, Skills and Experience

* Familiarity with international and national (i.e. South Africa) standards for production and installation of mechanical structures and quality systems.
* Knowledge of Pressure vessels and Cryogenics.
* Knowledge of mechanical challenges (i.e. structure, motion etc.) of RF systems used in Astronomy and Physics applications.
* Knowledge of RF systems used in Radioastronomy.
* Experience in design for volume production and/or in medium-large scale manufacturing and assembly.
* Experience of leading diverse professional project teams with the ability to coach and mentor.
* Membership of, or eligibility for membership of recognised national or international system engineering institutes.

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Management Accountant (10121)

Job Location：UK (Head Office)

Area / Department：Business Support function

Contract Type：Permanent

Salary：Competitive salary with generous pension and leave benefits

Closing Date：18/03/2021

Ref No：10121

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An amazing opportunity for a qualified or near-qualified management accountant who enjoys developing and maintaining highly complex spreadsheets while supporting the Finance Manager with business-as-usual activities.

The Role

Reporting to the Finance Manager, the Management Accountant will support the transactional finance function but also work closely with cost centre owners from the whole organisation to support the wider financial reporting and analysis requirements.

With regards to business-as-usual activities, the Management Accountant will prepare and post a number of journals such as accruals and prepayments, assisted by the Finance Assistant. They will then prepare a number of month-end reports and work with cost centre owners to obtain high quality commentary for the management team. The post holder will also need to work closely with the Treasury Manager, providing accurate data to support the cash flow forecasting.

The role would suit a candidate who enjoys developing and maintaining highly complex spreadsheets. Besides the business-as-usual activities, the Management Accountant will be required to develop and maintain long-term financial models, incorporating inflationary escalations and/or discounting to net present values, and comparing these forecasts to outturn. The role will also support the Finance Manager in preparing the annual budgets, budget revisions, and rolling forecasts.

This role offers the successful candidate the chance to be involved in strategic financial planning and reporting for the organisation, alongside performing the critical daily duties of a Management Accountant.

Key Responsibilities, Accountabilities and Duties

The post holder will:

* Prepare and post month-end journals;
* Prepare entity level monthly management reports for submission for consolidation by the Group Financial Accountant;
* Act as business partner for the cost centre managers and seek to provide high quality commentary for month-end variance analysis;
* Support the Finance Manager with the preparation of annual budgets, budget revisions and rolling forecasts;
* Develop and maintain spreadsheets of long-term financial plans compared to actuals, including inflationary increases or discounting amounts back to present value and accounting for movements in foreign exchange rates, for both income and expenditure;
* Support the Finance Manager with production of financial reports for Finance Committee, Board and Council;
* Weekly reporting of AP and AR to the Treasury Manager to ensure accurate cashflow forecasting;
* Review and approve requisition orders, supplier invoices, and perform bank authorisations as required in line with the internal delegation of authority;
* Support the annual external audit and any internal audits of the finance processes;
* Support with tax, customs, and VAT/GST claims and queries;
* Support with the ongoing development and enhancement of group accounting policies, finance processes and procedures and associated documentation as required;
* Work alongside the ERP System Manager and Finance Manager to continuously improve the ERP system finance processes and controls;
* Support the CFO by monitoring changes in IPSAS and IFRS accounting standards and planning for any necessary accounting changes;
* Train finance and non-finance staff as required;
* Travel as required;
* Undertake any other reasonable duties, such as assisting with other business systems, as directed by the post holder’s line manager.

Mandatory Knowledge, Skills and Experience

To perform in this role successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required:

* Qualified or near-qualified CCAB accountant (CMGA / CIMA / ACCA preferred) with experience in management accounting (typically at least 3 years);
* Experience of accounting for long-term financial plans and providing reporting on outturn, including inflationary escalations and/or discounting back to net present values;
* Experience of business partnering effectively with non-finance staff;
* Experience of building highly complex modelling and variance analysis spreadsheets in Excel;
* Knowledge of IFRS accounting standards;
* Strong proficiency in Microsoft Excel, Word and Powerpoint;
* Excellent written English;
* Ability to self-manage projects through to completion;
* Attention to detail and ensuring accuracy of information;
* Problem solver with ability to manage conflicting priorities and work to deadlines;
* A self-motivated team player who is flexible and adaptable to change.

Desirable Knowledge, Skills and Experience

* Experience of accounting for an IGO;
* Knowledge of IPSAS (International Public Sector Accounting Standards);
* Experience of working in a small-medium international group finance function;
* Experience within a multi-currency ERP system environment;
* Proficient in Unit4 ERP / Unit 4 Business World / Agresso;
* Experience of documenting policies, processes, risks and controls;
* Industry experience and/or a track record in successful collaborative links with industry.

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