

ROSE-L/Sentinel-1/Sentinel-1NG System and Performance Engineer

Job Req ID: 15001

Closing Date: 24 March 2022

Publication: Internal & External

Vacancy Type: Permanent

Date Posted: 24 February 2022

Vacancy in the Directorate of Earth Observation Programmes.

ESA is an equal opportunity employer, committed to achieving diversity within the workforce and creating an inclusive working environment. We therefore welcome applications from all qualified candidates irrespective of gender, sexual orientation, ethnicity, beliefs, age, disability or other characteristics. Applications from women are encouraged.

This post is classified A2-A4 on the Coordinated Organisations' salary scale.

Location

ESTEC, Noordwijk, Netherlands

Description

System and Performance Engineer, shared between the following Copernicus missions:

- ROSE-L (Copernicus Radar Observing System for Europe L-band)
- Sentinel-1
- Sentinel-1NG (Sentinel-1 Next Generation)

If selected for this post, you will report to the ROSE-L/Sentinel-1/Sentinel-1NG System Managers for all technical and programmatic matters and will work within the ROSE-L/Sentinel-1/Sentinel-1NG Project Teams.

The assignment covers the activities related to Phases B2/C/D/E1 for ROSE-L prototype and recurrent spacecraft, Sentinel-1CD Phase D/E1, including storage and post-launch support where applicable, and Sentinel-1NG from Phase A/B1.

Duties

You will be technically responsible for the ROSE-L/Sentinel-1/Sentinel-1NG end-to-end system performances definition and monitoring, supporting verification and validation where necessary. Your responsibilities include the development of performance models and proactive monitoring of the system performance budget and supporting the Payload and Spacecraft team members with the instrument and spacecraft design compliance to the performance allocation. In support of the System Manager, you will also propose updates to performance allocations in case of need.

The principal tasks and responsibilities will include:

- consolidation, maintenance and allocation of the system performance requirements;
- liaising, in support of the System Manager, with the Mission Science Division for the maintenance and evolution of mission requirements;

- consolidation, implementation and maintenance of the end-to-end system performance model and performance budgets;
- coordinating with other Project Team sections to ensure consistency of the performance model and budget with the actual System and Payload design;
- consolidation of the end-to-end system definition with respect to the performance allocation and verification (including level-1 data processing, flight calibration and characterisation, payload science and ancillary data);
- coordinating with other Project Team sections to ensure consistency of flight and ground segment performance and testing levels with system-level needs;
- coordinating with the Payload Data Ground Segment (PDGS) and relevant parties, their support to system level-1 product validation (Cal/Val activities) during the commissioning phase;
- monitoring the end-to-end data flow from geophysical parameters, through the instrument and spacecraft subsystems up to the final data products, ensuring availability of all required models and tools;
- coordinating the definition and implementation of system tools supporting satellite Cal/Val activities;
- ensuring that the definition of mission-specific elements is properly maintained, updated and validated in liaison with the Payload Data Ground Segment (PDGS) and Flight Operations Segment (FOS) coordinators and other relevant teams within ESA and with external partners;
- monitoring of industrial activities associated to the procurement and use of the end-to-end simulator and of the ground processing prototype processors;
- maintaining, updating and controlling the system interfaces to the ground segment elements involved in processing the provided data;
- providing regular reporting to the System Manager on all aspects of competence, identifying risks and problem areas and proposing mitigation actions where appropriate;
- supporting the general project reporting tasks (monthly, QSR/QIR) and other Department-level support activities as required.

Technical competencies

Multidisciplinary knowledge of area of responsibility, in particular in SAR systems and SAR modes as well as in system modelling and SAR data post processing domains

Experience in SAR performance requirements definition and validation of Radar missions

Experience in performance budgets definition and consequent performance verification tracking

Experience in Data processing and in the development of Ground Processors

Experience in project environment working on procurement and monitoring of industrial activities

Knowledge of ESA and Industrial procurement processes and standards for space system development, verification and Product Assurance

Behavioural competencies

Result Orientation

Operational Efficiency

Fostering Cooperation

Relationship Management

Continuous Learning

Forward Thinking

Education

A Master's degree in a relevant scientific/engineering discipline is required.

Other information

For behavioural competencies expected from ESA staff in general, please refer to the [ESA Competency Framework](#).

For further information please visit: [Professionals](#), [What we offer](#) and [FAQ](#)

The working languages of the Agency are English and French. A good knowledge of one of these is required. Knowledge of another Member State language would be an asset.

The Agency may require applicants to undergo selection tests.

At the Agency we value diversity and we welcome people with disabilities. Whenever possible, we seek to accommodate individuals with disabilities by providing the necessary support at the workplace. The Human Resources Department can also provide assistance during the recruitment process. If you would like to discuss this further please contact us email contact.human.resources@esa.int.

Please note that applications are only considered from nationals of one of the following States: Austria, Belgium, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, Romania, Spain, Sweden, Switzerland, the United Kingdom and Canada, Latvia, Lithuania and Slovenia.

According to the ESA Convention, the recruitment of staff must take into account an adequate distribution of posts among nationals of the ESA Member States*. When short-listing for an interview, priority will first be given to internal candidates and secondly to external candidates from under-represented or balanced Member States*.

(<https://esamultimedia.esa.int/docs/careers/NationalityTargets.pdf>)

In accordance with the European Space Agency's security procedures and as part of the selection process, successful candidates will be required to undergo basic screening before appointment conducted by an external background screening service.

Recruitment will normally be at the first grade in the band (A2); however, if the candidate selected has little or no experience, the position may be filled at A1 level.

*Member States, Associate Members or Cooperating States.