EUROPEAN SPACE AGENCY

CO2M System and Performance Engineer

Job Req ID: 14967
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, for Copernicus CO2M (Copernicus Anthropogenic CO2 Monitoring Mission), presently in B2 phase.

The holder of this post will report to the CO2M System Manager for all technical and programmatic matters and work within the CO2M Project Team.

The assignment covers the activities related to Phases B2/C/D/E1 for prototype and recurrent satellites, including storage, where applicable.

Duties
If selected for this post, you will be technically responsible for the CO2M end-to-end system performance definition, monitoring, verification and validation. Your responsibilities will include the development of a performance model and budget and proactive monitoring of instrument design compliance with the performances allocation, in close cooperation with the Payload and the Satellite Team members. In cooperation with the System Manager, you will also propose performance allocation re-shuffling, as required.

The principal tasks and responsibilities will include:

- consolidation, maintenance and allocation of the performance requirements;
- liaising, in combination with 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 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, together with the PDGS and relevant parties, the system, instrument and level-1 product verification (Cal/Val activities) during the commissioning phase;
- monitoring, with System Manager support, the end-to-end data flow from geophysical parameters, through the instruments and satellite systems up to the final data products, ensuring availability of all required models and tools;
- coordinating the definition and implementation of ground 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 with the procurement and use of the end-to-end simulator and of the ground processing prototype processors;
- maintaining, updating and controlling, from the system point of view, the interfaces to the ground segment elements involved in processing the data provided;
- supporting the System Manager as required depending on the mission, as technical interface point between the Project and partner organisations (e.g. EU, EUMETSAT);
- providing regular reporting to the System Manager on all aspects within your 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 the Optical Instruments as well as in system modelling and Data post processing domains
Experience in performance requirements definition and verification of microwave 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 PA

Behavioural competencies
Result Orientation
Operational Efficiency
Fostering Cooperation
Relationship Management
Continuous Improvement
Forward Thinking

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

Additional requirements
For this position, specific expertise In the optical Instruments domain and/or ground processing systems is an asset.

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.