EUROPEAN SPACE AGENCY

EO System Engineer

Job Req ID: 12542
Closing Date: 22 August 2021
Publication: Internal & External
Vacancy Type: Permanent
Date Posted: 09 July 2021

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, The Netherlands

Description
Earth Observation System Engineer in the Mission and System Studies Section, Future Missions and Instruments Division, Future Systems Department, Directorate of Earth Observation Programmes.

Reporting to the Head of the Mission and System Studies Section in the Future Missions and Instruments Division, you will be involved in the end-to-end preparation of EO missions through appropriate engineering activities, working in close cooperation with staff in this and other D/EOP Divisions, notably Earth & Mission Science.

Duties
Your responsibilities will include:

Acting as a focal point for the preparation of the Next Generation Gravity Mission (NGGM) conceived as a Mission of Opportunity between ESA and NASA, including:

- managing the Phase A system studies, ensuring the technical coherence of the system design including system-level budgets, system performance analyses, definition of spacecraft and payload subsystems and the related data processing;
- following and contributing to the pre-developments on the Laser Tracking Instrument, accelerometers and electric propulsion technologies, in coordination with the Optical Instruments Section and experts from D/TEC;
- defining and updating system specifications, determining system requirements traceable to mission requirements and user needs in close cooperation with the Earth & Mission Science Division;
- participating in the ESA-NASA Joint Engineering Team, fostering technical exchanges in order to consolidate the technical definition of the overall mission and the interfaces and work sharing between both Agencies, and coordinating with national agencies potentially interested in contributing to the mission;
- helping to prepare quantum gravimetry technologies and sensor concepts;
- helping to develop EO mission concepts relying on very high pointing capabilities
- helping to prepare future EO missions, including:

- defining, initiating and managing industrial activities to prepare future ESA EO missions, ensuring hand-over to the Project Department after approval;
- initiating and performing internal studies to assess the results of industrial activities;
- defining and updating system specifications throughout the preparatory phases of EO missions, in close cooperation with the Earth & Mission Science Division and the relevant Science/Mission Advisory Groups, supporting the establishment of mission requirements and determining system requirements traceable to mission requirements and user needs;
- contributing to the evaluation of industrial and scientific proposals, in particular for Research Missions;
- contributing to the preparation of scientific and technical dossiers on EO missions;
- supporting InCubed proposal evaluation and follow-up of activities when related to EO systems;
- contributing to the analysis of EO developments undertaken by other space agencies in Europe and worldwide, as well as commercial EO initiatives;
- contributing to the specification and development of mission analysis, mission performance and system-sizing tools used in the Future Missions & Instruments Division.

Technical competencies
Knowledge of ESA and industrial development, verification and procurement processes
Familiarity with Earth gravity field measurement techniques and equipment, including accelerometers, laser tracking and drag compensation systems
Background in space engineering with systems orientation and end-to-end view of EO

Behavioural competencies
Problem Solving
Results Orientation
Teamwork
Continuous Learning
Customer Focus
Innovation & Creativity

Education
A PhD or Master's degree in engineering or physics is required for this post.

Additional requirements
You will be expected to contribute to a dynamic and creative environment during the preparatory phases of EO missions.
You should have good interpersonal skills and be able to work and interact within small teams as well as autonomously.
At least seven years' relevant experience in space missions preparation and/or development. Experience in working in team/project environment is desirable.
Familiarity with various EO techniques and experience of hardware development and system performance evaluation are desirable.

Other information
For behavioural competencies expected from ESA staff in general, please refer to the ESA Competency Framework.

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 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.

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.

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