EUROPEAN SPACE AGENCY

Data Systems Engineer

Job Req ID: 12474
Closing Date: 27 May 2021
Publication: Internal & External
Vacancy Type: Permanent
Date Posted: 29 April 2021

Vacancy in the Directorate of Operations.

ESA is an equal opportunity employer, committed to achieving diversity within the workforce and creating an inclusive working environment. For this purpose, we 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
ESOC, Darmstadt, Germany

Description
Data Systems Engineer in the Applications and Robotics Data Systems Section of the Mission Operations Data Systems Division, Ground Systems Engineering and Innovation Department, Directorate of Operations. The Mission Operations Data Systems Division is responsible for the definition, implementation, acceptance, maintenance and evolution of operational data systems. This includes, but is not limited to:
- Mission data systems (e.g. mission control systems, mission planning systems, operational simulators);
- Infrastructure data systems (SIMULUS, MICONYS, EGOS-CC, EGOS-MG, Generic Applications and Software Development Environment);
- Multi-mission data systems and services provided to missions;
- Custom developments and application-specific data systems (for Space Safety Programme data service centres, robotic and CubeSat missions).

Duties
You will report to the Head of the Applications and Robotics Data Systems Section and be part of the team. The initial assignment is expected to include responsibility for (not exhaustive list):
- Space Safety Programme data service centres
- Support to third-party missions/projects
- Support to relevant infrastructure developments
- Key strategic innovation areas (e.g. CubeSats, AI, MBSE, Cybersecurity, AR/VR, Robotics).

Duties will include the following main tasks:
- provision of early high-level definition of operations data systems and related cost and schedule estimates;
- specification of the software requirements of these systems in collaboration with the operational users;
- definition and specification of their internal and external interfaces in agreement with the relevant parties;

- preparation and supervision of the necessary industrial contracts for procurement for the design, implementation, maintenance and evolution of these systems;
- acceptance of the deliverables received from industry, ensuring correctness, completeness and compliance with the applicable requirements;
- appropriate coordination and collaboration with any external community around the operations data system;
- support to the customers, i.e. the mission operations staff, as required in the various operational phases, including System Validation Tests, simulation campaign and as Software Coordinator in the Mission Control Team during critical operational phases such as launches;
- constructive, efficient collaboration with other internal ESOC units (e.g. the units supplying the necessary hardware and networks, flight dynamics) and external entities (e.g. other ESA Directorates, space agencies, industry, in particular software suppliers, academia);
- pro active contribution to the establishment of standards for operations data systems and software engineering;
- active participation in research and development activities in the area of operations data systems, including exploitation of the potential of the Advanced Ground Software Applications laboratory (AGSA);
- promotion of the adoption of innovative concepts, technologies, standards and data systems to both current and new customers.

Technical competencies
Experience in the development of complex data systems software
Ability to understand user needs in complex software systems
Experience in Software engineering methods and tools used in development of data processing systems
Experience in the management of software projects
State-of-the-art knowledge in modern IT trends and key strategic innovation areas
Familiarity with systems similar to those belonging to the ESOC control centre infrastructure

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

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

Additional requirements
You should have at least two years' proven experience in the development of complex data systems software and an extensive grasp of new technologies relevant to modern software engineering and simulation. Experience and interest in one or more of the following general areas is an asset: MBSE, cybersecurity, artificial intelligence/machine learning, AR/VR, robotics, CubeSats, service-oriented architecture, big data technologies, virtualisation, and DevSecOps.

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 at 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 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.