EUROPEAN SPACE AGENCY

Systems and Concurrent Design Facility (CDF) Engineer

Job Req ID: 13441
Closing Date: 16 November 2021
Publication: Internal & External
Vacancy Type: Permanent
Date Posted: 19 October 2021

Vacancy in the Directorate of Technology, Engineering and Quality.

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
You will join the team as Systems and Concurrent Design Facility (CDF) Engineer in the Systems and Concurrent Engineering Section, Systems Engineering Division, Systems Department of the Directorate of Technology, Engineering and Quality.
The Section provides support to ESA projects, performs feasibility assessment studies on potential future ESA missions, using the Concurrent Design facility (CDF), and carries out technology research (R&D) in the areas of systems and concurrent engineering, as well as developing design models and methodologies, including digital engineering and MBSE.

Duties
You will report to the Head of Section and, within the above technical areas, will have the following main tasks and responsibilities:
Support to projects and programmes
• Providing systems engineering support and consultancy to ESA projects, programmes and studies, throughout all project phases;
• Supporting project reviews and the evaluation of proposals;
• Developing and promoting the digitalisation of systems engineering, and model-based systems engineering (MBSE), and infusing them into projects.

Concurrent engineering activities in CDF
• Participating in and potentially leading feasibility studies conducted in the CDF, in the role of Systems Engineer and/or Team Leader;
• Developing and improving tools and methods for systems and concurrent engineering;
• Proposing, developing and encouraging new applications of the concurrent engineering approach, and fostering multidisciplinary activities, with the emphasis on innovative concepts, cutting-edge technologies and systems architectures.

R&D and technology development
• Contributing to the formulation and implementation of the ESA technology strategy, and supporting the definition of R&D work plans;
• Ensuring the promotion, coordination, follow-up and selection of technology activities;
• Defining, initiating and managing R&D activities under ESA's technology programmes, covering both long- and short-term needs;
• Monitoring scientific and technological trends for systems and concurrent engineering and maintaining corresponding state-of-the-art expertise.

Standardisation
• Contributing to the improvement of standardisation in systems and concurrent engineering, via ESA internal processes and lessons learned, and by liaising with ECSS.

Knowledge management
• Contributing to the promotion of systems and concurrent engineering across the Agency and to its partners;
• Contributing to the capture and dissemination of knowledge and lessons learned across the Agency.

Duties may also include providing support for other activities requiring systems engineering skills.

Technical competencies
General background and specific experience in the technical domains covered by the position
Project support experience in a relevant domain
Systems engineering
Spacecraft systems design
Model Based Systems Engineering methodologies and tools
Experience in preparation of procurement activities for technology development and innovation (statements of work, proposal evaluation)
Experience of space engineering standards

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

Education
A master’s degree in systems engineering or physics is required.

Additional requirements
Knowledge of the following technical areas is required:
- A solid background in spacecraft systems and space mission architecture design.
- Experience in systems engineering, mission analysis and design, design methodologies and system modelling.
- Concurrent engineering processes and related IT tools/infrastructure and application to

mission feasibility studies.
- Space project life-cycle, including mission/system conceptual design and trade-offs, requirements management, reviews, and verification engineering.

The ability to work independently and establish good working relations within the Agency.

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.