

Systems Engineer

Job Req ID: 12490

Closing Date: 20 June 2021

Publication: Internal & External

Vacancy Type: Permanent

Date Posted: 21 May 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. 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

ESTEC, Noordwijk, The Netherlands

Description

Systems and Concurrent Design Facility (CDF) Engineer in the Systems and Concurrent Engineering Section (TEC-SYE), Systems Engineering Division (TEC-SY), Systems Department (TEC-S), Directorate of Technology, Engineering and Quality.

The Section provides support to ESA projects, performs feasibility studies on potential future ESA missions using the Concurrent Design facility (CDF) and carries out technological research (R&D) in the fields of systems and concurrent engineering, as well as developing design models and methodologies, including MBSE.

Duties

Reporting to the Head of Section and within the technical fields described above, your main tasks and responsibilities will be as follows:

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 digitalisation of systems engineering, model-based systems engineering (MBSE) and incorporating these approaches into projects.

Concurrent Engineering Activities in CDF:

- Participating in and potentially leading feasibility studies conducted in the CDF, as 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, fostering multidisciplinary activities with an emphasis on innovative concepts, cutting-edge technologies and systems architectures.

R&D and Technology Development:

- Contributing to the definition of technology development work plans and activities for ESA's technology programmes;
- Defining, initiating and managing R&D activities covering both long- and short-term needs;
- Monitoring scientific and technological trends in systems and concurrent engineering and

maintaining the corresponding state-of-the-art expertise;

- Participating in the formulation of the strategy for R&D, and ensuring the promotion, coordination, follow-up and selection of technology activities.

Standardisation:

- Contributing to the improvement of standardisation in systems and concurrent engineering, including via internal processes, lessons learned, and links to, for example, ECSS;

Knowledge Management:

- Contributing to the promotion of systems and concurrent engineering across the Agency and to its partners;
- Contributing to the capture and transfer of knowledge and lessons learned across the Agency.

Duties may also include supporting other activities requiring systems engineering skills.

Technical competencies

Project support experience in a relevant domain

Systems engineering

Knowledge of the main tools usable for model-based systems engineering

Experience in preparation of procurement activities for technology development and innovation (statements of work, proposal evaluation)

Management and monitoring of industrial activities (interfaces with industry, reviews, etc)

Experience with Space Engineering Standards and their preparation and implementation

General background and specific experience in the technical domains covered by the position

Behavioural competencies

Result Orientation

Operational Efficiency

Fostering Cooperation

Relationship Management

Continuous Improvement

Forward Thinking

Education

A Master's degree in systems engineering is required.

Additional requirements

Knowledge of the following technical domains is required:

- Solid background in spacecraft systems and space mission architecture design.
- At least 10 years of experience in systems engineering, mission analysis and design, design methodologies and system modelling.
- Knowledge of concurrent engineering processes and related IT tools/infrastructure and application to mission feasibility studies would be an asset.
- Space project life cycle, including mission/system conceptual design and trade-offs, requirements management, reviews, verification engineering.
- 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.

The closing date for applications is 20 June 2021.

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, 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.