

Structural Engineer

Job Req ID: 15203

Closing Date: 30 April 2022

Publication: Internal & External

Vacancy Type: Permanent

Date Posted: 02 April 2022

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

Structural Engineer in the Structures Section, in the Structures, Mechanisms and Materials Division, Mechanical Department, Directorate of Technology, Engineering and Quality.

The Structures Section provides functional support to ESA projects and carries out technology research (R&D) in mechanical systems, structural design and verification, manufacturing, structural dynamics and application of lightweight structures.

Duties

You will report to the Head of Section and, within the above technical fields, your main tasks and responsibilities will include:

- Participating in feasibility studies for the preparation of specifications and analysis of industrial proposals;
- Providing functional support to approved spacecraft and payload projects and conceptual and feasibility studies in relation to all aspects of mechanical systems and configuration, structural design, static and dynamic analysis, fracture control and mechanical testing;
- Identifying critical development problems and assisting in their resolution, including evaluating complete mechanical systems;
- Performing structural analysis as required to support the development of structure subsystems;
- Participating in major reviews of spacecraft, launchers and payloads;
- Drawing up and evaluating specifications for the development and qualification of spacecraft system and subsystem structures with respect to defining requirements for environment-induced loads, model development philosophy and relevant verification methods;
- Participating in the definition and execution of Agency standards and technology R&D programmes with the emphasis on mechanical system and configuration aspects, lightweight structures, structural dynamics and advanced structural materials technologies;

- Supporting activities on structural integrity and the evaluation of loads during the life of the structures and their impact on overall verification, including drawing up of specifications, design, analysis, inspection and testing;
- Supporting concurrent design activities in terms of mechanical system aspects;
- Monitoring applicable scientific and technological trends and maintaining state-of-the-art expertise;
- Contributing to dissemination of the results of activities performed and the transfer of knowledge across the Agency.

Technical competencies

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

Experience in the development and verification of space hardware

Project support experience in a relevant domain

Experience with Space Engineering Standards and their preparation and implementation

Understanding of related technologies, R&D trends and the industrial landscape

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

Management and monitoring of industrial activities, including participation in reviews

Behavioural competencies

Result Orientation

Operational Efficiency

Fostering Cooperation

Relationship Management

Continuous Improvement

Forward Thinking

Education

Applicants for this post should have a master's degree in mechanical or aeronautical engineering.

Additional requirements

Some years of experience in spacecraft/payload structure development and structural analysis would be an asset.

You should have a good knowledge of spacecraft, payload, equipment and mechanical systems, in particular with respect to space vehicle structures.

A good knowledge of advanced methods of structural design, development and verification (analysis and mechanical testing) of spacecraft, payloads, equipment and launchers is also required.

Experience with concurrent engineering, spacecraft conceptual/feasibility studies and interfaces with other spacecraft system disciplines 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.

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