

Job Title: Structural Engineer

Req ID 8690 - Posted 21/03/2019



EUROPEAN SPACE AGENCY

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. Applications from women are encouraged.

Post Structural Engineer

This post is classified A2-A4 on the Coordinated Organisations' salary scale.

Location

ESTEC, Noordwijk, The Netherlands

Description

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

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

Duties

Reporting to the Head of Section and within the technical fields described above, the main tasks and responsibilities of the post holder 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, analysis and mechanical testing;
- Identifying critical development problems and assisting in their resolution, which includes 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;
- Establishing 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 special emphasis on mechanical system and configuration aspects, lightweight structures, structural dynamics and advanced structural materials technologies;
- Supporting activities on structural integrity, evaluation of loads during the life of the structures and their impact in overall verification, including establishment of specifications, design, analysis, inspection and testing;
- Supporting concurrent design activities regarding mechanical systems aspects;
- Monitoring applicable scientific and technological trends and maintaining a state-of-the-art expertise;
- Contributing to the 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 (interfaces with industry, reviews, etc)

Behavioural competencies

Communication
Teamwork
Continuous Learning
Innovation & Creativity
Customer Focus
Results Orientation
Planning & Organisation

Education

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

Additional requirements

Applicants should have several years of experience in the space industry with spacecraft and payload structures and structural analysis. A good knowledge of advanced methods of structural design, development and verification (analysis and mechanical testing) of spacecraft, payload, equipment and launchers is required. Experience in concurrent engineering, spacecraft conceptual/feasibility studies and interfacing with other space system disciplines would be an asset. Candidates should have a demonstrated ability to deal with industrial contractors in the preparation of programmes and evaluation of proposals, as well as experience in the execution of spacecraft and payload reviews. Ideally this experience would have been acquired through direct involvement with spacecraft structures and mechanical systems.

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 18 April 2019.

If you require support with your application due to a disability, please 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 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. (<http://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.