Job Title: Structural Engineer

Req ID **1981** - Posted **07/09/2017**

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, Structures, Mechanisms and Materials Division, Mechanical Engineering Department, Directorate of Technology, Engineering and Quality.

Duties
The postholder will be deployed in the Structures Section of the Structures, Mechanisms and Materials Division and will provide functional support to spacecraft and payload projects in the areas of mechanical systems, structural design and verification, manufacturing, structural dynamics and application of lightweight structures. The incumbent will also participate in conceptual and feasibility studies and provide support to the Agency's technology R&D activities.
The main tasks will include the following:

- participating in feasibility studies for the preparation of specifications and analysis of industrial proposals;
- providing functional support to approved projects 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 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;
- contributing to the dissemination of the results of activities performed and the transfer of knowledge across the Agency.

Technical competencies
Spacecraft, payload/equipment and mechanical systems experience and knowledge, in particular w.r.t space vehicles structures
Structural design and verification (analysis and mechanical testing) of spacecraft, payload/equipment and launchers
Spacecraft conceptual/feasibility studies and the interfacing with other disciplines
Space Engineering Standards, preparation and implementation

Understanding of related technologies, R&D trends and the industrial landscape
Preparation of procurement activities for technology development and innovation (e.g. statements of work, proposal evaluation)
Management of industrial activities including reviews

Behavioural competencies

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

Additional requirements

Applicants should have a good knowledge of mechanical systems and advanced methods of structural development and verification. For this position several years of experience of spacecraft and payload structures and structural analysis are required. Experience in concurrent engineering and interfaces with other space disciplines would be an asset.
Candidates should preferably also have experience in the execution of spacecraft and payload reviews, ideally acquired in the area of (stable) spacecraft structures.

Education

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

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 21 September 2017.

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.

Priority will first be given to internal candidates and secondly to external candidates from under-represented Member States.

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.