

Job Title: Flight Vehicle and Aerothermodynamics Engineer

Requisition ID 10810 - Posted 18/12/2020



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

Flight Vehicle and Aerothermodynamics Engineer

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

Location

ESTEC, Noordwijk, The Netherlands

Description

Flight Vehicle and Aerothermodynamics Engineer in the Flight Vehicles and Aerothermodynamics Engineering Section in the Propulsion, Aerothermodynamics and Flight Vehicles Engineering Division, Mechanical Department, Directorate of Technology, Engineering and Quality.

The Flight Vehicles and Aerothermodynamics Engineering Section provides functional support to ESA projects and carries out technology R&D on flight vehicles, flight physics, aerodynamics, thermodynamics and fluid dynamics engineering and the architecture design and analysis of suborbital, (re-)entry, space transportation, and exploration vehicles. The Section is also the focal point for the architecture design, analysis and technical assessment of space transportation vehicles for suborbital, orbital and exploration applications, including upper stages, (re-)entry, and expendable and reusable vehicles.

Duties

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

- providing expert technical support and consultancy to ESA projects, programmes and general studies on flight vehicle engineering and aerothermodynamics throughout all project phases;
- participating in feasibility studies, project reviews and the evaluation of procurement proposals;
- identifying critical development problems and assisting in their resolution;
- contributing to the definition of technology development requirements and work plans for the Agency's technology programmes;
- defining, initiating and managing R&D activities covering both long- and short-term needs;
- fostering new application areas for multidisciplinary activities, with emphasis placed on innovative concepts, cutting-edge technologies and system architectures;
- laboratory activities as required;
- 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.

Your duties may also include supporting other activities within your area of competence.

Technical competencies

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

Experience with the design, development and application of relevant tools and methods

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

Project support experience in a relevant domain

Spacecraft systems knowledge

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

Experience in managing and monitoring industrial activities, participation in reviews

Experience with Space Engineering Standards and their preparation and implementation

Behavioural competencies

Communication
Teamwork
Customer Focus
Innovation & Creativity
Problem Solving
Results Orientation

Education

A Master's degree in aerospace, mathematics, mechanical engineering or physics is required. A PhD in one of these domains is considered an asset.

Additional requirements

Solid experience in the Section's technical domains is required, as well as in the definition and specification of technology R&D activities.

In addition, you should have at least five years' practical experience in the first of the following key design and technology development areas; at least five years' practical experience in one or both of the others is desirable:

- Flight vehicle engineering on launcher, re-entry and space exploration projects;
- Aerothermodynamics analysis methodologies, as well as proven experience with engineering tools used for design and verification of space vehicles, with emphasis on the dynamic stability of re-entry vehicles;
- Aero-decelerators.

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 15 January 2021.

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, Latvia 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.