

Job Title: Space Environments and Effects Engineer

Requisition ID 9888 - Posted 05/01/2021



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

Space Environments and Effects Engineer

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

This position forms part of ESA's Advance Recruitment Scheme which is established to provide appropriate staffing resources when requirements materialise.

Appointments are therefore made for an initial duration of two years upon which you may be appointed to a permanent post at the Agency.

Location

ESTEC, Noordwijk, The Netherlands

Description

Space Environments & Effects Engineer, Space Environments & Effects Section, Power Systems, EMC & Space Environments Division, Electrical Department, Directorate of Technology, Engineering & Quality.

The Section provides functional support to ESA projects and carries out technological research (R&D) on space environments within which ESA missions will operate, assessing likely effects and defining mitigation methods. Environments addressed include: high-energy radiation from radiation belts, solar-particle events and cosmic rays, plasmas encountered in planetary magnetospheres, the solar wind and artificially-generated charges and fields on spacecraft, micro-meteoroids and non-trackable debris as well as planetary atmospheres.

See the Section web page (<http://space-env.esa.int>) for more details.

Duties

Reporting 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 in the field of space environments and effects throughout all project phases;
- participating in feasibility studies, project reviews and 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 long- and short-term needs;
- fostering new application areas for multidisciplinary activities, placing emphasis 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 the dissemination of the results of the activities performed and the transfer of knowledge across the Agency.

Duties may include supporting other activities within your field of competence.

Technical competencies

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

Experience in the development and verification of space hardware

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

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

Experience in the management and monitoring of industrial activities, including participation in reviews

Behavioural competencies

Communication

Teamwork

Customer Focus

Innovation & Creativity

Results Orientation

Continuous Learning

Education

A Master's degree or equivalent qualification in a relevant field, such as physics, mathematics or engineering, is required.

Additional requirements

- An in-depth knowledge of computational languages, tools and IT infrastructures applicable to the analysis and modelling of space environments and effects – particularly regarding Geant4 radiation analysis software and its applications GRAS and Geant4-DNA.
- A proven track record of related space mission/experiment project support activities and involvement in the necessary collaborations.
- Experience in radiation-shielding and space radiation monitoring hardware development.

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 02 February 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, 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.