

Job Title: Electromagnetics Engineer

Job Requisition ID 10814 - Posted 09/10/2020



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 Electromagnetics Engineer

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

Location
ESTEC, Noordwijk, The Netherlands

Description

Electromagnetics Engineer in the Wave Interaction and Propagation Section, RF Payloads & Technology Division, Electrical Department, Directorate of Technology, Engineering and Quality.

The Wave Interaction and Propagation Section provides functional support to ESA projects and carries out technological research (R&D) in:

- Wave propagation relevant to space communications, navigation and remote sensing;
- Wave interaction for active, passive and combined remote sensing of ocean, land and atmosphere of the Earth and other planets.

This includes:

- Modelling and experimental validation;
- Associated mitigation, retrieval, correction and calibration algorithms;
- Related end-to-end performance assessment, including contribution to product quality.

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 in the area of microwave remote sensing 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 both 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 dissemination of the results of the 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

Experience with laboratory or field campaigns

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

Behavioural competencies

Communication

Teamwork

Innovation & Creativity

Problem Solving

Continuous Learning

Systems & Broader Business Thinking

Education

A Master's degree in engineering or physics with some emphasis on electromagnetics is required.

Additional requirements

Solid expertise and several years' professional experience in the following:

- microwave interaction with natural surfaces and associated forward models and retrieval algorithms;
- microwave Earth observation instrument concepts (Synthetic Aperture Radar, Microwave Radiometer, etc.) and related end-to-end performance assessment, spurious effects mitigation and vicarious calibration techniques;
- associated Level-1 and Level-2 data products and data processing techniques.

Knowledge and understanding of the Earth science context is considered an asset.

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 06 November 2020.

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.

(<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.