EUROPEAN SPACE AGENCY

Optoelectronics Engineer

Job Req ID: 12172
Closing Date: 13 May 2021
Publication: Internal & External
Vacancy Type: Permanent
Date Posted: 15 April 2021

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. For this purpose, we welcome applications from all qualified candidates irrespective of gender, sexual orientation, ethnicity, beliefs, age, disability or other characteristics. Applications from women are encouraged.

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

Location
ESTEC, Noordwijk, The Netherlands

Description
Optoelectronics Engineer in the Optoelectronics Section, Mechatronics and Optics Division, Mechanical Department, Directorate of Technology, Engineering and Quality.

The Optoelectronics Section provides functional support to ESA projects and carries out technology research (R&D) in the field of optoelectronic device technologies and applications. The Section deals in particular with the specification, development and characterisation of photonic components and systems, such as detectors and lasers operating in the UV to FIR wavelength ranges, fibre-optic sensors, lidars, optical communication systems and quantum technologies.

Duties
You will report to the Head of Section and your main tasks and responsibilities will include:

- Providing expert technical support and consultancy to ESA projects, programmes and general studies in the area of photo-detectors, focal plane instrumentation development, optical communications and relevant testing techniques 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 the 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.

Duties may also include providing support for other activities within your area of competence.

Technical competencies

- General background and specific experience in the technical domains covered by the position
- Hands-on hardware experience
- Understanding of related technologies, R&D trends and the industrial landscape
- Project support experience in a relevant domain
- Experience with laboratory and field testing of relevant technical equipment
- Experience in the preparation of procurement activities for technology development and innovation (statements of work, proposal evaluation, etc)

Behavioural competencies

- Result Orientation
- Operational Efficiency
- Fostering Cooperation
- Relationship Management
- Continuous Improvement
- Forward Thinking

Education

A Master's degree in optoelectronic engineering for this post is required. Preference will be given to applicants with a PhD.

Additional requirements

At least 10 years experience in the design, definition, development and testing of photonic devices and sensors, ideally with detectors and detection chains including one or more of the following detector types: CCD, CMOS, MCT and InGaAs.

In addition, theoretical and hands-on experience of detector front-end electronics design and development is required.

Knowledge in optical communications, feeder links and laser technologies is an asset.

Experience in providing support to Earth observation and Science Missions in relation to detectors at system level and also in following critical R&D activities tailored to the specific needs of a mission will be considered a strong 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.

At the Agency we value diversity and we welcome people with disabilities. Whenever possible, we seek to accommodate individuals with disabilities by providing the necessary support at the workplace. The Human Resources Department can also provide assistance during the recruitment process. If you would like to discuss this further please contact us at 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.