

EUROPEAN SPACE AGENCY

Optoelectronics Engineer

Job Req ID: 15017

Closing Date: 30 March 2022

Publication: Internal & External

Vacancy Type: Permanent

Date Posted: 02 March 2022

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. We therefore 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, 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 technological research (R&D) in the field of optoelectronic device technologies and applications. In particular, the Optoelectronics Section deals 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

If selected for this position, 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 photo-detectors, focal plane instrumentation development and 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, 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 also include supporting other activities within your field of competencies.

Technical competencies

General background and experience in the technical domains covered by the position, i.e. electrical engineering or semiconductor physics

Hands-on hardware experience

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

Project support experience in a relevant domain

Experience with laboratory or field testing of relevant technical equipment

Experience in the coordination and preparation of procurement activities for technology development (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 is required. Preference will be given to those applicants with a PhD.

Additional requirements

Solid experience in the design, definition, development and testing of photonic devices and detectors imaging systems, ideally with visible, infrared and x-ray 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 on detector front-end electronics design and development is required.

Knowledge of environmental testing of space hardware will be considered an asset.

Experience in providing Earth observation and Science missions with support in the field of detectors at system level and also in following critical R&D activities tailored for the specific needs of the 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](#).

For further information please visit: [Professionals](#), [What we offer](#) and [FAQ](#)

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 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, Lithuania 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 or balanced 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 conducted by an external background screening service.

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.

*Member States, Associate Members or Cooperating States.