

Job Title: Young Graduate Trainee for Space Visible and Infrared Detector Characterization

Requisition ID 12090 - Posted 04/03/2021



EUROPEAN SPACE AGENCY

Young Graduate Trainee Opportunity in the [[customDirectorate]].

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.

Post

Young Graduate Trainee for Space Visible and Infrared Detector Characterization

This post is classified F1.

Location

ESTEC, Noordwijk, The Netherlands

Our team and mission

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. The Section deals in particular with the specification, development and characterisation of photonic components, subsystems and active optical instruments, such as detectors and lasers operating in the UV to FIR wavelength ranges, fibre-optic sensors, lidars, optical communication systems and quantum technologies.

Interested candidates are encouraged to visit the ESA website: <http://www.esa.int>

Field(s) of activity/research for the traineeship

You will contribute to visible and infrared detector characterisation.

Detectors, such as charge-coupled devices (CCD), CMOS image sensors (CIS) and materials including Mercury Cadmium Telluride (MCT) and Indium Gallium Arsenide (InGaAs) are essential components in imaging and spectroscopy space missions for both Earth observation and astronomy. The Optoelectronics Section has created a high-performance detector characterisation facility and requires a competent and enthusiastic person to:

- Characterise the electro-optical performance of visible and infrared wavelength detectors
- Optimise the detector characterisation facility, in particular, aspects related to calibration and uncertainty analysis
- Further develop the characterisation facility capabilities.

Technical competencies

Knowledge of relevant technical domains
Relevant experience gained during internships/project work
Breadth of exposure coming from past and/or current research/activities
Knowledge of ESA and its programmes/projects

Behavioural competencies

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

Education

You should have just completed, or be in your final year of, a university course at Masters level in a technical or scientific discipline.

Specific competence in one of the following disciplines will be considered an asset:

- Theoretical or hands-on/laboratory experience related to one or more of optoelectronics, detectors (CCD, CIS, MCTs), spectroscopy, instrumentation.
- Experience in engineering software tools (e.g. Python, LabView, Matlab).

Additional requirements

You should have good interpersonal and communication skills and should be able to work in a multi-cultural environment, both independently and as part of a team.

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.

During the interview motivation and overall professional perspective/career goals will also be explored.

Other information

For behavioural competencies expected from ESA staff in general, please refer to the [ESA Competency Framework](#).

The closing date for applications is 28 March 2021.

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, and the United Kingdom. Nationals from Latvia and Slovenia, as Associate Member States, or Canada as a Cooperating State, can apply as well as those from Bulgaria, Cyprus, Lithuania and Slovakia as European Cooperating States (ECS).

Priority will first be given to candidates from under-represented Member States.

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