

Job Title: LIDAR Principal Engineer

Requisition ID 11979 - Posted 29/01/2021



EUROPEAN SPACE AGENCY

Vacancy in the Directorate of EO Programmes.

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.

Post

LIDAR Principal Engineer

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

Location

ESTEC, Noordwijk, The Netherlands

Description

You will report to the EarthCARE Payload Manager (EOP-PXP). EarthCARE is the third Earth Explorer Core mission designed to help determine the Earth radiation budget by providing global observations of vertical profiles of clouds and aerosols. As LIDAR Principal Engineer, you will support the system integration, testing and verification of the ATLID Payload on the spacecraft, including verification of its performance and development of its L0 and L1 data processors. You will participate in the preparation and execution of the in-orbit commissioning phase. In addition, you will support other ongoing and future LIDAR-based Earth Observation missions.

Duties

The principle tasks and responsibilities will include:

- Engineering and Data Analysis for the EarthCARE ATLID Payload, including verification and performance monitoring activities, as well as analysis and test during the satellite level test campaign;
- Participate in system-level reviews (space/ground segments when relevant) to assess ATLID performance against instrument and mission requirements;
- Support the preparation and execution of the EarthCARE Calibration/Validation activities and support campaign results analysis;
- Support the development and verification of the ATLID level 0 to level 1 processor, including reference test data sets and verification with instrument data;
- Support the development of level 2 processors using ATLID data, in particular with respect to their interaction with instrument performance and level 1 products;
- Support the preparation and validation of ATLID Flight Control Procedures, for the instrument on-ground and in-orbit operations including commissioning and initial validation activities;
- Support the execution of the ATLID in-orbit commissioning activities, in particular at payload/satellite/data processing level;
- Support/execute in-house independent verification of new ATLID software modules developed by industry/science institutes as part of the EarthCARE End to End Simulator;
- Support maintenance of the ATLID instrument simulator and performance model by liaising and collaborating with the End-to-End Performance Simulator Engineer and Performance & Science Products Coordinator on all ATLID aspects;
- Liaise and collaborate with in-house and external EarthCARE science experts on all ATLID aspects;
- Support the operations of current and development of future LIDAR-based Earth Observation Missions with LIDAR expertise covering LIDAR payload system and detailed design, performance analysis and data products processing.

Technical competencies

Multi-disciplinary knowledge of area of responsibility

Knowledge and experience in development of optical Earth Observation payloads

Experience of managing technical interfaces between subsystems both within ESA project team environment and for the industrial consortium

Experience in spaceborne, LIDAR based optical instrument development

Experience in performance modeling and simulation and data processing for LIDAR based optical instruments

System engineering

Experience in mission, spacecraft and/or payload operations

Knowledge of ESA and industrial development, verification and procurement processes

Behavioural competencies

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

Education

A Master's degree in scientific/engineering discipline is required.

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 28 February 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, 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.