

Job Title: Mission System Performance & Calibration Engineer

Req ID 10124 - Posted 03/07/2020



EUROPEAN SPACE AGENCY

Vacancy in the Directorate of Science.

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

Mission System Performance & Calibration Engineer

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

Location

ESTEC, Noordwijk, The Netherlands

Description

PLATO is the third medium-size mission under the Agency's Cosmic Vision Science programme, and is devoted to the search for and characterisation of exoplanets around Sun-like stars in their habitable zone.

As the Mission System Performance & Calibration Engineer, you will report to the Mission Performance & Operations Manager (SCI-PLM), PLATO Project, Projects Department, Directorate of Science.

Duties

You will be responsible for maintaining mission-level performance requirements and budgets, consolidating and monitoring spacecraft and payload calibration, and supporting the definition of PLATO science operations. Duties include:

- Leading mission-level requirements engineering:
 - Maintaining mission-level science performance requirements;
 - Leading the assessment of system design and operations trade-offs and waivers affecting performance requirements;
 - Maintaining the sub-allocation of mission requirements to lower-level requirements, for both the space and ground segments;
 - Acting as custodian of the PLATO mission requirements justification files;
- Performance analysis and management:
 - Creating and tracking mission performance budgets and metrics in close cooperation with the Project Scientist;
 - Acting as day-to-day project interface with the PLATO Mission Consortium performance group;
 - Supporting the PLATO payload and platform engineering sections regarding all performance-related aspects;
 - Leading the definition and integration of end-to-end performance simulation tools at project level;
 - Following up data-processing algorithm definition (on-board and on-ground) for PLATO data product production;
- Mission and payload calibration and verification:
 - Reviewing and monitoring the definition of calibration activities (both on-ground and in-flight) to ensure consistency and completeness;
 - Acting as day-to-day project interface with the PLATO Mission Consortium Calibration and Operations Team;
 - Defining the approach for end-to-end performance verification of the Payload and the Spacecraft and supporting their implementation;
- Science Operations:
 - Acting as the day-to-day project interface with the PLATO science operations team regarding all aspects related to nominal science operations, commissioning and in-orbit performance verification;
 - Coordinating calibration and science operations needs with the Section's Lead Software and Operations Engineer and with the Payload Section to ensure consistency;
 - Supporting definition of the Payload and Spacecraft in-orbit commissioning and performance verification plans;

- Supporting technical and scientific communication with the general public;
- Participating in other Project and Science Projects Department tasks when required.

You will coordinate and work closely with members of the Section and with those of the Payload and Spacecraft Sections. You will be supported by Directorate of Technical and Quality Management engineers, as required.

Technical competencies

Systems engineering

Familiarity with science and payload performance analysis (radiometric/photometric modelling, image quality assessment)
Experience in managing scientific space developments involving multiple interfaces (PI, scientific consortium, project, industry)

Experience with definition and review of payload and spacecraft calibration programs

Experience in payload in-orbit commissioning and performance verification

Management and review of complex system performance budgets particularly in the frame of high precision optical payloads

Experience with visible Optical Systems and Charge Coupled Devices (CCD) performance and calibration

Behavioural competencies

Results Orientation

Teamwork

Planning & Organisation

Problem Solving

Relationship Management

Communication

Education

A PhD or Master's degree in a relevant scientific or engineering discipline is required.

Additional requirements

You will be expected to contribute to a dynamic and creative environment in the implementation phases of the PLATO project. You should have good interpersonal skills and be able to interact with several interfaces as well as autonomously. Experience of working in a team/project environment is desirable.

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 31 July 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 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.