

Job Title: Multispectral Instrument Detection Chain and Performance Engineer

Req ID 2601 - Posted 11/04/2018



EUROPEAN SPACE AGENCY

Vacancy in the Directorate of Earth Observation Programmes.

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

Multispectral Instrument Detection Chain and Performance Engineer

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

Location

ESTEC, Noordwijk, The Netherlands

Description

Multispectral Instrument Detection Chain and Performance Engineer in the Earth Observation Projects Department, Directorate of Earth Observation Programmes

Duties

Reporting to the Sentinel-2 MSI payload and mission engineering manager, the incumbent will be part of the Sentinel-2 project team and responsible for:

- procuring the sub-assemblies constituting the payload VNIR and SWIR detection chains (detectors, proximity electronic units, video compression subsystem),
- following up the opto-mechanical and electrical integration of the detection chains in the payload,
- checking consistency of the development plan and AIT programme from sub-assembly level up to the payload and satellite levels, allowing appropriate characterisation of the detection chains' key parameters driving MSI radiometric and optical performance,
- the verification approach for detection chain functionalities and performance and its appropriateness to associated system requirements compliance.

Duties include:

- monitoring the design, development and assembly of each detection chain constituent (detectors, proximity electronic units, video compression subsystem) so that their procurement meets system engineering requirements coherently and cost-effectively,
- establishing and monitoring, with the industrial consortium, the detection chain performance verification programme and monitoring its incremental implementation from unit/sub-assembly level up to instrument and satellite integrated level, including verification of external interfaces, to demonstrate qualification and/or acceptance of the payload detection chains,
- ensuring that payload performance requirements, keeping focused on the detection chains' key parameters, are being verified in compliance with applicable specifications and standards,
- reviewing payload detection chain AIT plans and their consistency with the design, development, integration, test and verification plans applicable to the payload,
- monitoring commissioning of optical, mechanical and electrical ground support equipment required for payload performance characterisation and functional validation at instrument and satellite level,
- monitoring delivery of relevant detection chain test data and verification information to the ground segment,
- monitoring performance (SNR, MTF, spatial/temporal co-registration) and engineering budgets, ensuring consistency with payload's overall performance requirements,
- ensuring consistency of the payload reference and characterisation databases required for on-ground and in-orbit payload monitoring,
- supporting commissioning preparation to achieve payload functional verification and in-orbit performance characterisation.

Technical competencies

Knowledge of industrial costs and schedule aspects

Space system development and PA standards

Capability to evaluate performance at mission level

ESA Space systems development, verification and review processes and standards

Experience in managing technical interfaces between sub-systems

Hands-on hardware experience

Instrument subsystems: optics, detection and electronics, mechanical and thermal

Instrument system AIV

Space optical instrument development

Understanding of space system architectures

Behavioural competencies

Communication

Planning & Organisation

Problem Solving

Results Orientation

Fostering cooperation & effective team-working

Customer Focus

Education

Applicants must have a Master's university degree or equivalent qualification in an engineering field or related subject. Solid experience in the space field, including appropriate experience in project engineering and tasks management, is required, together with team spirit and good practical and analytical skills.

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 03 May 2018.

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.