

Job Title: Instrument Principal Engineer (CHIME, CO2M, LSTM)

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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

Instrument Principal Engineer (CHIME, CO2M, LSTM)

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

Location

ESTEC, Noordwijk, The Netherlands

Description

Following the successful subscription by the ESA member states at the Ministerial Council in November 2019, 6 High Priority Candidate Missions (HPCM) are planned for B2/C/D/E1 kick-off in the summer 2020. The current recruitment applies to the 3 following missions: CHIME (Hyperspectral mission), CO2M (CO2 Monitoring mission) and LSTM (Land Surface Temperature Mission).

These recruitments are proceeding via a single process, whereby you will be asked to specify a preference and exclusions for any of the listed HPCM missions.

You report to the corresponding mission Payload/Instrument Manager for all technical and programmatic matters. You will be responsible for development of the optical instrument(s) covering the visible and infrared spectral domain, the associated performance verification and the support to the in-orbit commissioning of the instrument(s).

Duties

- monitoring the design and development of the instrument(s), its interfaces and ground support equipment, ensuring procurement will meet engineering requirements within cost and schedule boundaries;
- monitoring the design, development, assembly, integration, testing and verification of the instrument(s), keeping consistency between instrument and platform interfaces;
- contributing to optimisation of the instrument assembly, integration, testing and verification program, monitoring its incremental implementation from unit level up to instrument and satellite integrated level, to demonstrate instrument qualification, acceptance and associated performance;
- reviewing instrument assembly, integration and test plans and procedures at instrument and satellite level, attending relevant tests at instrument and satellite level and reviewing instrument(s) test reports, participating in associated reviews and boards (NRB, VCB,...);
- reviewing the instrument prime contractor development approach and schedule, and monitoring the critical path of the instrument, proposing mitigation actions to anticipate or when risks materialize at unit or instrument level;
- monitoring development and maintenance of models, tools, documentation, including characterisation databases and key data, required for definition of technical payload budgets and evaluation of instrument performance;
- monitoring delivery of instrument test and verification data to support overall system verification, including provision of necessary inputs for instrument operations;
- participating in definition of the instrument calibration and validation plan, supporting preparation and execution of instrument in-orbit operations and calibration/validation activities;
- liaising with other project sections related to all performance-relevant requirements to support definition and development of algorithms for conversion of telemetered raw instrument data into calibrated data, e.g., in the Ground Processor Prototype and/or E2E Simulator;
- participating in system-level reviews (space/ground segments when relevant) to ensure suitability of the instrument design and verification program necessary to meet performance requirements;
- supporting general project reporting tasks (monthly, QSR), article submission for conferences and other Department-level support activities as required.

Specialised engineers will functionally support you, in particular for optical, mechanical, thermal and electrical engineering.

Technical competencies

Knowledge of industrial costs and schedule aspects
Complex project risk management processes
Space system development and PA standards
Multidisciplinary knowledge of area of responsibility
Experience of managing technical interfaces between subsystems both within ESA project team environment and for the industrial consortium
Instrument system AIV
Technical knowledge of optical instruments (radiometers or spectrometers)

Behavioural competencies

Communication
Planning & Organisation
Responsible Decision-Making
Results Orientation
Teamwork
Problem Solving

Education

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

Additional Requirements

Candidates must demonstrate an excellent knowledge of the Instrument engineering and experience in the field of space-borne VIS/IR radiometers and/or spectrometers procurement in line with the preference he/she will have mentioned.

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 20 October 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, 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. (<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.