

EO Optical Payload Engineer

Job Req ID: 9788

Closing Date: 22 June 2021

Publication: Internal & External

Vacancy Type: Permanent

Date Posted: 01 June 2021

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. 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.

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

Location

ESTEC, Noordwijk, The Netherlands

Description

EO Optical Payload Engineer, Future Missions and Instruments Division, Future Systems Department, Directorate of Earth Observation Programmes.

Reporting to the Head of the Optical Instruments Section, you will be responsible for the end-to-end definition, engineering, technology breadboarding and pre-development of optical payload systems for future EO research missions – e.g. Earth Explorers, Missions of Opportunity and Scout missions - and operational missions, e.g. Earth Watch, Copernicus and meteorology.

The above payloads include EO multispectral imagers at various resolutions, imaging spectrometers and Fourier-Transform spectrometers for ocean, land and atmosphere sensing, and active laser payloads for surface and atmosphere sensing, covering the full wavelength range from ultraviolet to far infrared. You will be engaged in the study and pre-development of one or several of them.

Duties

Duties include:

- identifying and investigating new observation principles, techniques and technologies in coordination with staff in this Department, the Science, Applications & Climate Department and D/TEC, including interfacing with research and technical groups;
- maintaining knowledge of relevant technology status and instrument development programmes inside and outside ESA, including developments undertaken by other space agencies in Europe and worldwide, as well as commercial initiatives such as those under NewSpace, in close collaboration with the Division's Technology Coordination & Frequency Management Section;
- defining and assessing the performance and technological readiness of new optical EO payload systems in close collaboration with the EO system engineers of the Division's Mission & System Studies Section, taking into account mission, system and programmatic objectives and requirements;
- defining, initiating and managing industrial contracts for the study and risk-retirement of new optical payload systems, according to the agreed activity plan;

- performing risk-retirement activities through technology breadboarding and pre-development of optical payload systems for future EO missions (including Earth Explorer, Earth Watch, Copernicus, meteorology) up to their completion, coordinating instrument pre-development activities with project teams when required;
- developing ground-based or airborne instrument models, according to the concepts' maturity and performance-demonstration needs;
- providing expert support to the Division for the optical payload aspects of missions undergoing evaluation or preparation, including for evaluation of mission proposals, optical payload system support to Phase 0/A and mission architecture studies, and contributing to the preparation of technical and scientific dossiers on new EO research and operational missions;
- supporting InCubed proposal evaluation and technical management of activities when related to EO optical payloads and technologies
- defining, developing, maintaining and upgrading optical payload systems dimensioning and performance models and tools to assess new instrument concepts.

You will work closely with other staff from the Division and from D/EOP and will also liaise with the Directorate of Technology, Engineering & Quality (D/TEC) and other Directorates involved in optical engineering activities.

Technical competencies

Familiarity with optical remote sensing techniques

Knowledge of technical domains and related R&D space industry trends

Knowledge of innovation-related processes

Experience in spaceborne optical instrument development

Behavioural competencies

Result Orientation

Operational Efficiency

Fostering Cooperation

Relationship Management

Continuous Improvement

Forward Thinking

Education

You should have a PhD or Master's degree in engineering or physics.

Additional requirements

You will be expected to contribute to a dynamic and creative environment in preparatory phases of EO missions.

You should have good interpersonal skills and be able to work and interact within small teams as well as autonomously.

At least seven years' relevant experience in EO optical instruments and associated development.

Experience in working in team/project environment is desirable.

Familiarity with various optical EO techniques and experience of hardware development and performance analysis models/tools are 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.

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.

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