

Job Req ID: 9787

Agency: ESA

EO Microwave Payload Engineer



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

EO Microwave Payload Engineer

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

Location

ESTEC, Noordwijk, The Netherlands

Description

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

Duties

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

The types of payload include passive microwave imagers/sounders for ocean, land and atmospheric sensing as well as active sensors such as scatterometers, altimeters, synthetic aperture radars (SAR), subsurface sounders and atmospheric radars, using wavelengths extending to the sub-mm wave range. You will be engaged in the study and pre-development of one or more of these types of payload.

Duties include:

- identifying and investigating new observation principles, techniques and technology in coordination with staff in this Department, in the Science, Applications & Climate Department and in the Directorate of Technology, Engineering & Quality(D/TEC), interfacing with research and technical groups as required;
- maintaining knowledge of the relevant technology status and payload development programmes inside/outside ESA, including development 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 end-to-end performance and technology readiness of new microwave EO payloads 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 microwave payloads, according to the agreed activity plan;
- performing risk-retirement activities through technology breadboarding and pre-development of microwave payloads for all future EO missions up to completion, coordinating instrument pre-development activities with project teams when required;
- developing ground-based or airborne microwave payload models, according to the concepts' maturity and performance demonstration needs;
- providing expert support to the Division for the microwave payload aspects of missions undergoing evaluation or preparation, including for evaluation of mission proposals, support to Phase 0/A and mission architecture studies, contributing to the preparation of technical and scientific dossiers on new EO research missions and operational missions;
- supporting InCubed proposal evaluation and technical management of activities when related to EO microwave payloads and technologies;
- defining, developing, maintaining and upgrading microwave payload dimensioning and performance models and tools to assess new instrument concepts.

You will work in close cooperation with other staff from the Division and D/EOP and will also liaise with D/TEC and other Directorates involved in microwave technology and engineering activities.

Technical competencies

Familiarity with microwave remote sensing techniques

Knowledge of innovation-related processes

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

Experience in spaceborne microwave instrument development

Behavioural competencies

Problem Solving

Continuous Learning

Customer Focus

Innovation & Creativity

Results Orientation

Teamwork

Education

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

Additional requirements

Contribute to a dynamic and creative environment in preparatory phases of EO missions.

Have good interpersonal skills, being able to work and interact within small teams as well as autonomously.

At least seven years' relevant experience in EO microwave payloads and associated developments.

Experience in working in team/project environment is desirable.

Familiarity with microwave sensing techniques such as passive microwave imaging/sounding, altimetry and atmospheric radar sensing, 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.

The closing date for applications is 08 April 2021.

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.