

Job Title: Data Quality and CAL/VAL Engineer for SAR

Requisition ID 11942 - Posted 08/01/2021

INTERNAL VACANCY NOTICE
ALL STAFF MEMBERS INTERESTED
ARE INVITED TO APPLY



EUROPEAN SPACE AGENCY

Vacancy in the Directorate of EO 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.

Post

Data Quality and CAL/VAL Engineer for SAR

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

Location

ESRIN, Frascati, Italy

Description

Data Quality and Cal/Val Engineer for SAR missions in the Sensor Performance, Products & Algorithm Section, EO Mission Management and Product Quality Division, EO Mission Management & Ground Segment Department, Directorate of Earth Observation Programmes

Duties

You will contribute to the overall quality of the SAR data products provided by ESA, with initial emphasis on the products of the Copernicus SAR missions. You will also provide Product Quality and Cal/Val support for the other EO SAR/data provided by ESA. You will report to the Head of the Sensor Performance, Products and Algorithms Section.

You will be initially allocated the following duties:

- Preparing the end-to-end data quality process of Sentinel-1 SAR mission products during its exploitation phase, including the products and processing scenario definition, the algorithm definition and evolution for Level 1 and Level 2 products, the calibration and the geophysical validation concept definition and evolution during the development and exploitation phases;
- Managing the industrial contracts related to SAR data quality, algorithm evolution and Cal/Val activities, and, in particular, defining, implementing and managing the SAR Mission Performance Cluster;
- Supporting the development of SAR ground segment data processing, calibration, validation and quality control facilities for Copernicus, Earth Explorer (e.g. BIOMASS) and Third Party Missions.
- Proposing innovation in the area of EO product algorithm development, calibration and validation, through a collaborative framework with remote sensing scientists, aiming to introduce more flexibility in the ESA services to EO users; this includes, in particular, supporting the definition and development of a Mission Algorithm and Analysis Platform tailored for SAR mission users;
- Continuously assessing evolving user requirements regarding ESA EO SAR missions in term of data quality, calibration and validation, exploring potential synergies with missions under EOP-G responsibility;
- Fostering ESA's strategy and innovation in terms of algorithm, calibration and validation of ESA EO SAR data products, including harmonisation and standardisation with European, scientific and international partners, in particular with the Climate Change Initiative programme, the Committee on Earth Observation Satellites and the Copernicus Services;
- Supporting the mission managers in respect of communication activities, contributing to the preparation of presentations and reports. Publication of papers in peer-reviewed journals is highly encouraged.

Technical competencies

Data management technology

Experience in remote sensing retrieval techniques

General background and specific experience in the technical domains covered by the position

Knowledge of (large) international scientific research collaborations, preferably using space-based techniques

Knowledge of international scientific community
Knowledge of scientific discipline, including strategic vision of the Earth Observation area
State-of-the-art knowledge in area of responsibility at required level
Experience in development and maintenance of ground infrastructure and/or software systems
Experience in mission, spacecraft and/or payload operations

Behavioural competencies

Result Orientation
Operational Efficiency
Fostering Cooperation
Relationship Management
Continuous Improvement
Forward Thinking

Education

Applicants for this post should have a University PhD or Master's degree in Physics, Engineering or Earth Sciences with particular emphasis on SAR instruments, data processing algorithms, calibration and validation

Additional requirements

You should also have :

- A minimum of three years' proven experience with satellite-based SAR instruments and data processing within institutes or industry, with a strong scientific background and experience in project management. In particular, you shall be familiar with advanced SAR image formation techniques like Digital Beam Forming.
- Expertise in retrieval of geophysical variables over sea and/or landmasses is an asset.
- You shall have a general background and specific experience in the technical domains covered by the position, knowledge of the scientific discipline, including strategic vision of the Earth Observation area.

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 29 January 2021.

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.