

# Job Title: Electrical System Engineer

Job Requisition ID 10808 - Posted 09/10/2020



## 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

#### Electrical System Engineer

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

### Location

ESTEC, Noordwijk, The Netherlands

### Description

Electrical System Engineer in the Power Management and Distribution Section, Power Systems, EMC & Space Environments Division, Electrical Department, Directorate of Technology, Engineering and Quality (hereinafter referred to as the "Parent Unit").

Training and familiarisation with the parent Department's mandate, processes and procedures will be provided at the start of this assignment.

You will be assigned as integrated support to the function of Electrical System Engineer in the MetOp Second Generation (MetOp-SG) Project, Projects Department, Directorate of Earth Observation Programmes (hereinafter referred to as the "Host Unit").

MetOp Second Generation (MetOp-SG) is an operational meteorological project established in cooperation with Eumetsat. ESA is responsible for the definition and development of the space segment and, on behalf of Eumetsat, the procurement of the recurrent satellites. The programme consists of two series of satellites, with three satellites in each series. The project has successfully passed its Critical Design Review and the AIV phase has started for the first flight model. The first two launches are planned for 2023 and 2024.

In the MetOp-SG project, you will supervise the development of the Electrical Power Subsystem and electrical AIV activities at satellite level. Provision of strong support in the areas of data handling, EMC and Radio Frequency Compatibility (RFC) design and implementation activities is also expected.

### Duties

You will report to the MetOp-SG Engineering Manager, support the MetOp-SG Principal Electrical System Engineer and have specific responsibility for the MetOp-SG Electrical Power Subsystem and for satellite electrical AIV activities.

The main tasks and responsibilities for the post include:

- managing and monitoring industrial activities for the MetOp-SG Electrical Power Subsystem (solar array, power conditioning and distribution unit, batteries, secondary power system in units and instruments);
- providing support in the areas of data handling, EMC and Radio Frequency Compatibility (RFC) design and implementation covering the MetOp-SG satellites and all payload instruments;
- following up electrical AIV activities at satellite level (Electrical Functional Model, PFM and FMs);
- providing early warning of potential problem areas and ensuring appropriate mitigation actions are identified and implemented;
- participating in Non-Conformance Review Boards;
- coordinating specialist support, as necessary.

In carrying out these tasks, you will coordinate closely with other engineers in the Section and with members of the System & Operations, Payload and PA Sections of the MetOp-SG project as well as expert functional support provided by the Directorate of Technology, Engineering and Quality.

You will also participate in periodic meetings with the Parent Unit, contributing to the transfer of technical knowledge and lessons learned between the Parent and Host Units and across the Agency.

### Technical competencies

Multi-disciplinary knowledge of area of responsibility  
Knowledge of other technical domains with interfaces to own area of responsibility  
Space system development and PA standards  
Knowledge of ESA and industrial development, verification and procurement processes  
Understanding of related technologies, R&D trends and the industrial landscape

### Behavioural competencies

Communication  
Planning & Organisation  
Problem Solving  
Responsible Decision-Making  
Teamwork  
Self Motivation

### Education

A Master's degree in relevant physical sciences or engineering discipline is required.

### Additional requirements

Experience or knowledge in the following domains is an asset:

- Experience in Power System analysis, including power and energy budget assessment
- Knowledge of secondary power system analysis and verification
- Knowledge of the distribution system analysis and verification
- Knowledge of the design and verification of DC/DC converters with MPPT
- Knowledge of Electronic Power Conditioning units (EPC) for High Voltage payloads
- Experience in satellite electrical, assembly, integration and testing
- Experience in the power system support for Launch and Early Phase Operations of space missions.

### 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 November 2020.**

If you require support with your application due to a disability, please email [contact.human.resources@esa.int](mailto:contact.human.resources@esa.int).

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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.