



## **EUROPEAN SPACE AGENCY**

## Vacancy in the Directorate of Technical and Quality Management

The European Space Agency is an equal opportunity employer and encourages applications from women

**POST** 

Payload Data Processing Engineer in the On-board Payload Data Processing Section, Data Systems Division of the Electrical Engineering Department, Directorate of Technical and Quality Management.

This post is classified in the A2/A4 grade band of the Coordinated Organisations' salary scale.

LOCATION

ESTEC, Noordwijk (Netherlands).

**DUTIES** 

The postholder will work in the On-board Payload Data Processing Section and will be involved in the field of on-board payload data acquisition, handling & processing. Specific duties will include:

- supporting ESA projects from the early concept phase to launch preparation, including participating in project reviews;
- assessing on-board data acquisition, handling & processing techniques and devices for present and future ESA missions;
- specifying, implementing and verifying digital signal processing algorithms and processing of element hardware for space science and earth observation payloads;
- analysing and optimising high-accuracy as well as high-speed data acquisition chains;
- defining data handling and processing system architectures including their validation in a laboratory environment;
- participating in the standardisation of high- and very high-speed on-board networks and the development of corresponding components and validation tools:
- defining, validating and monitoring the development of customised circuits for space applications;
- following up component technology evolution and selection of performance-driving devices;
- participating in the definition of ESA R&D programmes and acting as the technical officer responsible for the implementation of several R&D activities through the placing of industrial contracts;
- contributing to the distribution of the results of activities performed and knowledge transfer across the Agency.

QUALIFICATIONS

Applicants for this post should have a Master's degree or equivalent qualification in electrical and electronics engineering or a related field, supplemented by some years' experience in the field of on-board electronics and data-handling systems. Candidates are additionally required to have practical experience of analogue and digital hardware design and development.

Knowledge and/or experience, as indicated, in one or more of the following areas (listed in order of priority) would be an asset:

- experience of the design, simulation, manufacturing and testing of spacecraft data-handling equipment, modules, boards and components;
- experience of instrument data acquisition and data processing chain electronics (for RF and optical instruments);
- practical experience of high- and very high-speed on-board networks;
- knowledge/experience of the VHDL and Verilog design languages as well as FPGA and ASIC design and development for space applications;
- knowledge of the space environment, related ECSS engineering standards and quality requirements;
- experience of signal processing techniques for both software and hardware development.

Applicants should have good interpersonal and communication skills. They should be able to work autonomously, effectively and cooperatively in a diverse and international team environment and define and implement solutions in line with team and individual objectives and project deadlines.

Candidates should additionally have good analytical, organisational and reporting skills, a proactive attitude to problem-solving and an interest in innovative technologies.

The working languages of the Agency are English and French. A good knowledge of one of these languages is required. Knowledge of another Member State language would be an asset.

## **CLOSING DATE**

The closing date for applications is 9 January 2015.

Applications from external candidates for this post should preferably be made <u>online</u> from the ESA website (<u>www.esa.int/careers</u>). Those unable to apply online should submit their CVs to Human Resources, ESTEC, Keplerlaan 1, 2201 AZ Noordwijk ZH, The Netherlands.

ESA staff members wishing to apply for this post should fill in the <u>Internal Application Form</u> and email it to <u>Apply2ESTEC</u>.

The Agency may require applicants to undergo selection tests.

Under ESA Regulations, the age limit for recruitment is 55. Please note that applications are only considered from nationals of one of the following States: Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, Romania, Spain, Sweden, Switzerland, the United Kingdom and Canada.

Priority will first be given to internal candidates and secondly to external candidates from underrepresented Member States.

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.