Job Title: Digital Payload Engineer

Req ID **4741** - Posted **20/12/2017**

EUROPEAN SPACE AGENCY

Vacancy in the Directorate of Technology, Engineering and Quality.

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
Digital Payload Engineer
This position is classified A2-A4 on the Coordinated Organisations' salary scale.

This position forms part of ESA's Advance Recruitment Scheme which is established to provide appropriate staffing resources when requirements materialise. Appointments are therefore made for an initial duration of two years upon which the selected candidate may be appointed to a permanent post in the Agency.

Location
ESTEC, Noordwijk, The Netherlands

Description
Digital Payload Engineer in the Payload Engineering Section, RF Payloads and Technology Division, Electrical Department, Directorate of Technology, Engineering and Quality.

The Payload Engineering Section provides functional support to ESA projects and carries out technological research (R&D) in the field(s) of telecommunication payloads and subsystems, microwave and millimeter wave remote sensing instruments and navigation payloads exploiting analog, digital and optical on-board technologies.

Duties
Reporting to the Head of Section and within the technical fields described above, the main tasks and responsibilities of the post holder will include:

- providing expert technical support and consultancy to ESA projects, programmes and general studies in the field of RF payloads throughout all project phases;
- contributing to the overall architectural definition, specification and development of future telecom and navigation payloads, including the assessment of new concepts, signal processing techniques and applications of new technologies;
- assessing new concepts and signal processing techniques to be applied to the next generation of on-board processors;
- defining and specifying on-board processors and digital processing payload equipment;
- defining the technological requirements of processors for future satcom and navigation payloads, in co-operation with ESA's specialists in the microelectronics domain;
- participating in feasibility studies, project reviews and evaluation of procurement proposals;
- identifying critical development problems and assisting in their resolution;
- contributing to the definition of technology development requirements and work plans for the Agency's technology programmes;
- defining, initiating and managing R&D activities covering both long- and short-term needs;
- fostering new application areas for multidisciplinary activities, placing emphasis on innovative concepts, cutting-edge technologies and system architectures;
- monitoring applicable scientific and technological trends and maintaining a state-of-the-art expertise;
- contributing to the dissemination of the results of the activities performed and the transfer of knowledge across the Agency.

Duties may also include supporting other activities within the post holder's field of competence.

Technical competencies
General background and specific experience in the technical domains covered by the position
Understanding of related technologies, R&D trends and the industrial landscape
Hands-on hardware experience
Project support experience in a relevant domain
Experience in the preparation of procurement activities for technology development and innovation (statements of work, proposal evaluation, etc)
Experience with Space Engineering Standards and their preparation and implementation

Behavioural competencies
Communication
Teamwork
Innovation & Creativity
Results Orientation
Planning & Organisation
Continuous Learning

Education
A Master's degree or equivalent qualification in telecommunications or electronics engineering is required.

Additional requirements
A good understanding of the specification and evaluation of telecom and/or navigation payload functionalities, architectures and key performance parameters is required, together with a good background in digital processing techniques and digital and mixed-signal technologies for on-board payload applications. A good knowledge of modern computer systems, programming languages, digital signal processing techniques and technologies is also required.

Knowledge of digital technologies for Earth observation instruments, as well as knowledge of RF remote sensing instruments and techniques, e.g. radar, altimeters, radiometers, etc. will be an asset.

Some years of professional experience in the technical domains required for this position will be considered an asset.

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 31 January 2018.

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, Slovenia, Spain, Sweden, Switzerland, the United Kingdom, 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. Priority will first be given to internal candidates and secondly to external candidates from under-represented Member States when short-listing for interview.
*(*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.