



HE Space is a successful international space company. For 40 years, we have been supporting our customers with qualified experts in the field of engineering, science and administration. HE Space has joined forces with CS Group to lead the engineering and digital space market in Europe and to provide highly skilled consulting.

TT&C Engineer

Key Tasks and Responsibilities

As part of the End-to-end System Comms Section, you will have the following responsibilities:

- Support on TT&C / PDT End-to-End Communications Systems;
- Assessing and defining architectures, techniques, and technologies for E2E comms systems, including TT&C and PDT links; design of associated functions and techniques within the system, in particular: modulation, signal synchronization, digital signal processing, error control coding, combined (adaptive) high order modulation/coding, and communication protocol stacks, from physical layer up to application layer;
- Assessing the End to End (including user) TT&C/PDT communication system design and performance in real and simulated scenarios, including Performance analysis, (dynamic) link budgets and data flow analysis, capacity and volume assessment; including interaction between different link layers; assessment of related encryption and authentication functions;
- Supporting Projects throughout all phases, regarding the follow-up of industrial activities related to E2E communication systems on space/ground/user segments, including system level design and trade-offs, architecture design, system development, verification, and acceptance;
- Participating in Concurrent Design Facility work and design/feasibility studies, in domain of Communications Systems, supported with internal activities involving signal/data processing and software-based analytical, design, and validation tools including mission analysis;
- Implementing laboratory activities associated with End to End communications systems including assessment of techniques and technologies (simulation, performance, functions), from physical layer up to application layer; development, maintenance, and usage of system tools including simulators and concept breadboards;
- Support to the preparation of relevant standards and their impacts/implementation in the frame of standards bodies (ECSS, CCSDS, etc) and performing the associated technical work; Contributing to the definition of technology development requirements and work plans for the Agency's technology programmes ;
- Support to definition, initiating, and managing R&D activities covering both long- and short-term needs, and addressing TT&C/PDT enabling and enhancing concepts and techniques;

- Support to projects reviews and associated non-conformance reports or improvement proposals.

Skills & Experience

You will have the following qualifications and relevant experience:

- Master's degree in Telecommunication or Electronic Engineering;
- 4 years of relevant work experience in the field of satellite TT&C and PDT systems;
- Knowledge of modern computer systems, programming languages, telecommunication standards particularly in the area of TT&C and Telemetry, digital signal processing theory applied to communication systems and simulation tools is required;
- Familiarity with TT&C transponders, Payload Data Transmitters (for Earth Observation) and other spacecraft sub-systems technology design and testing is an asset, as is knowledge on TT&C spaceflight hardware development;
- Knowledge on satellite telecommunication systems based on optical technology is an asset;
- Knowledge on Authentication and Encryption schemes as applied to TT&C/PDT systems, in addition to cyber security aspects, is also an asset;
- candidates must be eligible for security clearance from their national security administration;
- Fluency in English is mandatory; knowledge of another European language is an advantage.

This job is located in Noordwijk, The Netherlands.

If you think you have what it takes for this job, please send your CV (in English and in Word or PDF) to Medina Djakova, by clicking on the button "Apply for this job" quoting job **NL-HP-25006**.

An exciting and dynamic international working environment awaits you!



HE Space recruiting for ESA