

5G/6G System Engineer

Job Req ID: 12505

Closing Date: 29 July 2021

Publication: Internal & External

Vacancy Type: Permanent

Date Posted: 30 June 2021

Vacancy in the Directorate of Telecommunications and Integrated Applications.

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.

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

Location

ECSAT, Harwell, United Kingdom

Description

The 5G/6G Network Systems Engineer will join the 5G/6G Strategic Programme to work on exciting national and international 5G/6G collaborative projects involving diverse stakeholders including user terminal, non-space industry, for example automotive/energy/logistics, terrestrial network, and commercial satellite operators. This role includes working within the 5G/6G Strategic Programme team to operate, evolve and support our 5G/6G hub located on the Harwell Campus, a world-class centre dedicated to the integration of satellite and 5G/6G systems. The Centre works in partnership with some of the world's leading organisations, and infrastructure and tool providers.

You will be responsible for managing projects and delivering key technical solutions within the collaborative projects, which typically includes development, delivery and operation of the end-to-end architecture. You will become a champion for the Centre and develop extensive knowledge of future networks and seamlessly integrated satellite and terrestrial networks.

Duties

- Assessing business, technological and operational requirements applicable to 5G/6G satcom networks and beyond (space and ground segments) and their integration with terrestrial wired and wireless networks in an end-to-end system context;
- Providing expert technical support and consultancy to ESA projects, programmes and general studies in 5G/6G system engineering for integration of terrestrial and satellite systems;
- Contributing to the definition of technology development requirements and work plans for the Agency's 5G and 6G programmes;
- Assessing requirements, exploring partnerships and reaching out to satellite and terrestrial stakeholders to promote satellite integration in 5G;
- Initiating and managing activities related to 5G/6G and satellite integration;
- Managing technical suppliers with regard to the installation, testing and acceptance of the 5G/6G hub elements;
- Planning, implementing and executing end-to-end tests across a range of satellite and 5G/6G connectivity scenarios;

- Managing technical demonstrations for a range of audiences;
- Facilitating the testing and validation activities of third-party applications and services using the 5G/6G hub;
- Devising tests and test plans as well as performing tests and data analysis on new and existing products;
- Working on test concepts from planning through to commissioning of new test equipment;
- Providing accurate, detailed written test reporting, including documenting of test processes;
- Collaborating with the engineering team throughout the project cycle to achieve the required outcomes;
- Participating in product specification.

Technical competencies

Proficiency of mobile network architecture e.g. Evolved Packet Core (EPC), Radio Access Networks (RAN) and associated ancillary services e.g. IMS
 Experience of 4G/5G core architectures and mobile networks protocols
 Knowledge of 5G RAN and O-RAN/vRAN/cloudRAN
 Virtualisation and cloud platforms (e.g. Openstack/kvm and docker/Kubernetes)
 Experience of MEC, Networking L2/L3, Software Defined Networks (SDN)

Behavioural competencies

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

Education

A Master's degree or a PhD in networking and data communication, telecommunications systems or a similar discipline is required for this post.

Additional requirements

You have at least three years' relevant work experience in technical developments. You have industrial experience in working in telecommunications technical labs and knowledge of satellite and cellular (5G) communication systems.

You are an experienced test engineer with a broad understanding of electromechanical products and good troubleshooting skills.

You are able to interact at management level with potential new business partners.

You will be expected to travel regularly to industrial premises and technical and business events.

Direct experience of working with a commercial telecommunications industry and operator will be a distinct advantage. Experience in Public Private Partnership Projects would be 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.

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 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, Spain, Sweden, Switzerland, the United Kingdom and Canada, Latvia, Lithuania 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.

(<https://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.