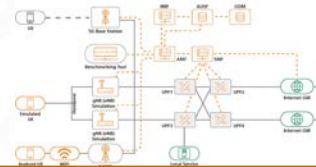




Enhancements of the 5G Core Network

5GC Software Developer



 **Supervisor:** Prof. David Gomez-Barquero



Payroll: 22k€-28k€/year (gross salary)
based on qualification/experience



Job Overview

The Mobile Communications Group (MCG) of the **iTEAM Research Institute** will coordinate the European 5G-PPP project **FULLY DisinteGrated private nEtworks for 5G verticals (FUDGE-5G)**, which will make a leap forward in realizing the notion of highly-customized cloud-native 5G private networks. The candidate **will join a team that will develop new functionalities into the Open5GCore**, a worldwide-first SW-based implementation of the 3GPP 5G Core (5GC) network developed by the Fraunhofer FOKUS research institute, with focus on **5G Local Area Networks (5GLAN)**, **5G Time Sensitive Networking (5G-TSN)**, and **5G Multicast** communications. The new 5GC solutions will be tested over the premium end-to-end 5G NR facility 5G-VINNI operated by Telenor.



Job Main Goals

- To **design, implement** and **validate** new functionalities in the **Open5GCore**, such as 5G-Multicast, 5GLAN and 5G-TSN
- To participate in validation 5G trials in the **5G Campus of iTEAM**, the **5G Playground** of Fraunhofer FOKUS, and the **5G-VINNI** test-bed of Telenor



Candidate requirements

- Degree in Telecommunications or Computer Science
- Advanced knowledge of C++ programming language
- Knowledge of mobile core networks and cloud technologies will be highly valued
- Fluent in English, both writing and speaking

FUDGE-5G

- FUDGE-5G is a **5G-PPP** (www.5g-ppp.eu) research project, formed by 12 partners from 10 countries (50% high-technology SMEs) with major vendors
- The project will develop new solutions for the **5G Core** from Release 16 and beyond, focused on **5G private networks**
- Key technology enablers are **unified SBA** (Service-Based Architecture), **5GLAN**, **5G-TSN**, and **5G-Multicast**
- Validation will take place in the **5G-VINNI** test-bed of **Telenor** in Norway, with innovative use cases



Duration: 30 months (Sept. 2020 – Feb. 2023)



If you are interested: send your CV and motivation letter as soon as possible to dagobar@iteam.upv.es