

Development and Integration of a 5G Test-bed in UPV premises

SUPERVISOR: David Gómez-Barquero

PAYROLL (Degree Graduate): 1866 €/month (taxes not included)

DESCRIPTION:

5G-Xcast (<http://5g-xcast.eu/about/>) is a 5GPPP Phase II project focused on Broadcast and Multicast Communication Enablers For the Fifth Generation of Wireless Systems. The project analyses the requirements for future media, including 4k/8k Ultra-High-Definition Television (UHDTV) and other cutting edge multimedia, covering both commercial and technical aspects. 5G-Xcast also investigates how to provide Broadcast and Multicast in 5G, from Physical Layer, Radio Access Network, up to the 5G Core and Content Distribution Network.

Inside this project, iTEAM-UPV (<http://www.iteam.upv.es/?lang=en>) is the coordinator and Project Manager for 5G-Xcast. A 5G compliant laboratory with Release 15 equipment is planned for 2019 inside the iTEAM premises. iTEAM is searching for candidates to bring to reality the developments made inside 5G-Xcast, related to New Radio Mobile Physical Layer, adding new functionalities such as multicast and broadcast, using Software-Defined-Radio (SDR) equipment. Several SDR equipment is available to act both as transmitter and receiver.

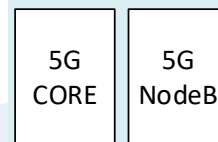
PAYROLL (Ph.D Holder): 2390 €/month (taxes not included)

GOALS:

- To help in the **deployment and integration of the iTEAM 5G laboratory.**
- Development of **transmitting and receiving functions** on top of existing Release 15 to allow for **Multicast and Broadcast communications** in SDR equipment.
- Validation by **trials on UPV campus** of 5G and/or 5G-Xcast technology if the schedule allows for it.

CANDIDATE REQUIREMENTS:

- **Be able to relocate immediately to Valencia, Spain.** Fluent in English.
- Degree or Ph.D in Telecommunications or Electronic Engineering.
- Familiarity with SDR programming (GNURadio or LabView).
- Interest in networking and managing IP networks.



Dedicated Fiber Link



RF Transmitter

APPROXIMATE DURATION : Jan-July 2019