

Job offer

The **Photonics Research Labs** of the **Institute of Telecommunications and Multimedia Applications (iTEAM)** offer a **full-time** job position for an Electrical/Telecommunications Engineer (or equivalent Degree). The position is offered for an **initial 4-month** period within the framework of the National project “Multicore fibers for next-generation fiber-wireless applications (FITNESS)”. The position may be extendable up to the end date of the project (December 2019) and compatible with obtaining a PhD degree.

The idea of the project **FITNESS** is to develop what we call “distributed signal processing”, where simultaneously to radiofrequency distribution and MIMO connectivity, the same optical fiber will implement a variety of broadband functionalities that will be especially demanded in future 5G smart radiating systems and wireless personal area networks. This approach requires working on a new portfolio of advanced optical fibers comprising several cores with the same cladding, i.e. multicore fibers, to implement a tunable optical delay line for radiofrequency signals. The optical delay line is actually the basis of multiple signal processing operations.

The recruited person, together with the rest of the research team, will work on an innovative optical technology built upon heterogeneous multicore fibers, where each one of the cores has different propagation characteristics. This implies, in first place, to work on new design algorithms, theoretical analysis and simulations using specific numerical software and Matlab. Second, the recruited person will contribute to the application of the developed optical delay lines to a set of representative Microwave Photonics applications that are required in broadband fiber-wireless communications. This entails the experimental characterization of electro-optical devices and the implemented optical fibers, as well as the experimental demonstration of different signal processing operations in the Photonics Research Labs. These include tunable microwave signal filtering, optical beamforming for phased array antennas, arbitrary waveform generation and multi-cavity optoelectronic oscillation.

The candidate should have an Electrical/Telecommunications Engineering Degree with an academic background in photonics and optical communications.

- Duration: 4 months (extendable)
- Estimated starting date: 01/04/2017
- Monthly remuneration: 1250€

For further information, please contact **Dr. Ivana Gasulla** by email: ivgames@iteam.upv.es.