

Expression of Interest



UNIVERSITAT POLITÈCNICA DE VALÈNCIA

Contact Person/Scientist in Charge

- **Name and surname:** Borja Vidal
- **Email:** bvidal@dcom.upv.es

Universitat Politècnica de València (UPV)

Department / Institute / Centre

- **Name:** Nanophotonics Technology Center
- **Address:** Campus de Vera, Camino de Vera, s/n, 46022 Valencia
- **Province:** Valencia

Research Area

- Information Science and Engineering (ENG)
- Physics (PHY)

Brief description of the institution:

Universitat Politècnica de València (UPV) is the single Spanish Technical University that features in the main University world rankings. It is within the top 5 Spanish Universities with the highest revenue from both public research and knowledge transfer activities, and a national leader in patent license income and start up creation. Constituted in 1971, it comprises nearly 30.000 students, over 2500 academics, and 17 university research centres of excellence.

UPV has a relevant experience in the participation in international research programmes, with over 100 FP7 projects and 40 H2020 projects in the period 2014-2015. UPV researchers are also actively involved all H2020 life program stages, from workprogramme drafting discussions, to project coordination. It is also taking part in several major partnering initiatives (JTIs, PPPs, KICs...).

Brief description of the Centre/Research Group (including URL if applicable):

The NTC is a research institute of the Universitat Politècnica de València. The NTC has currently 50 members including 10 university professors, 8 postdocs, 12 technicians and 10 PhD students. Our premises (3800 m² building) include a 500 m² clean room (class 10-100). Our research activities are focused in nanophotonics, from basic science to the development of optical devices, systems and networks. We participate in a number of EU and national projects and in research activities with companies and other institutions. We have created three spin-off companies: DAS Photonics (space, aeronautics, and defense), Fibernova (telecom) and Lumensia Sensors (sensing).

Project description:

New applications of THz waves

The research will be related to THz technology and the development of new fields of application for THz radiation. The capability to generate and control THz waves has been reached very recently. The access to this spectral region opens up new fields where the singular features of THz radiation can be exploited to solve societal and industrial demands. The research will focus on studying new fields of application of THz waves in areas such as sensing (where the THz band offers strong interaction with matter), telecom (where the THz can offer huge bandwidths) and biology.

Applications

Curriculum Vitae (CV)