

*PhD position on nano-electro-opto-mechanical systems (NEOMS)*

*Nanophotonics Technology Center*

*Universitat Politècnica de València, Spain*

Nano-electro-opto-mechanical systems (NEOMS) are nanoscale elements enabling the controlled and coherent interaction of electrons, photons, and phonons. NEOMS can be integrated on silicon chips, which ensures its coexistence with silicon electronics and photonics whilst providing new functionalities in the classical and quantum realms. For instance, they can be used as quantum transducers between microwave qubits and optical telecom networks or as highly-efficient electro-optical processors in wireless networks.

We are offering a PhD position at the Nanophotonics Technology Center (<https://ntc.webs.upv.es/>) under the supervision of Prof. Alejandro Martínez to work in the design, fabrication, and characterization of the electrical and optical interfaces of on-chip silicon-based NEOMS. Research activities will be performed within a European project as well as a Spanish network on quantum photonics, so the PhD student will collaborate with different Spanish and European institutes, universities, and companies.

Candidates must have a degree in physics or electrical/telecommunications engineering. Other profiles may be considered. Master studies related to optics, telecommunications and/or nanotechnology are very valuable. English is highly recommended. Salaries will be according to the usual values in Spain.

If interested, send a motivation letter (1 page) and a short CV to Prof. Alejandro Martínez ([amartinez@ntc.upv.es](mailto:amartinez@ntc.upv.es)) and Ms. Isabel Salas ([misalas@ntc.upv.es](mailto:misalas@ntc.upv.es)).

**Starting date:** September/October, 2023.

**Additional information on the group:** <https://ntc.webs.upv.es/plasmonics-and-optomechanics/>

**Location:** <https://ntc.webs.upv.es/contact/>

**Application deadline:** 1<sup>st</sup> of July, 2023

