

The group Quantum Materials and Devices <https://www.qmad.es/> at the *Instituto de Nanociencia y Materiales de Aragón (INMA)* <https://inma.unizar-csic.es/> is seeking highly motivated young scientists or engineers with an interest in quantum technologies to work on the 'Control of quantum processors and implementation of protocols and algorithms'. The contract is funded by the *Spanish National Research Council (CSIC)* within the newly-established PTI+ platform on Quantum Technologies <https://qst.csic.es/about/>, a cluster of more than 30 CSIC groups sharing a common vision on Quantum Science and Technology.

We are looking for individuals with a degree in Electronic or Telecom Engineering or in Physics. The tasks to be carried out would be the following:

1. Install and test the microwave synchronous modular electronics (8 inputs and 8 outputs) and the coaxial lines and other necessary components (amplifiers, circulators, etc.) in a cryo-free dilution refrigerator.
2. Collaborate in programming control sequences in an FPGA environment, adapted to electronics and specific algorithms, with real-time decision making.
3. Carry out test experiments on quantum circuits and hybrid quantum processors with dimension $d = 16$ aimed at implementing an error correction algorithm and an optimization algorithm.
4. Collaborate in searching other users and applications.

The position is funded for two years. The candidate will work with Fernando Luis, in close collaboration with a highly dynamic team of experimentalists and theoreticians, and with contacts with high-tech companies.

Interested candidates should provide a curriculum vitae to the following email address:

fluis@unizar.es