

Universitat Politècnica de Catalunya – BarcelonaTech, Terrassa, Barcelona, Spain

PhD Job opening in semiconductor lasers for neuro-inspired information processing.

Applications are invited for a PhD position to work on neuro-inspired semiconductor laser systems. The successful candidate will register for a three-year PhD in the Universitat Politècnica de Catalunya – BarcelonaTech (www.upc.edu) working with Profs. Cristina Masoller, M. Carme Torrent, and Jordi Garcia-Ojalvo.

The full-time position is available immediately and will be offered on a fixed-term contract for 36 months. The position is an **Early Stage Researcher** within the Initial Training Network “Neural Engineering Transformative Technologies” (<http://www.neural-engineering.eu/>), funded by the European Commission. Annual gross salary is in the range of 38000 euros.

Job description: The work is aimed at the development of photonic devices with information-processing capabilities inspired on neuronal systems. The work will involve experimental studies of semiconductor lasers under different types of configurations, including optical feedback and optoelectronic modulation. While the main part of the work will be experimental, the successful candidate will also be trained to perform numerical simulations of laser models. A limited amount of teaching (less than 3 hours per week) will also be expected, at the level of teaching assistant for first-year physics lab courses for engineering students.

Work place: the laboratory is located in the Universitat Politècnica de Catalunya, Campus Terrassa. The semiconductor laser lab has state of the art equipment and facilities for performing experimental and numerical work. The Phd student will work with another PhD student and the senior researchers in the group. The fellowship includes short internships at NETT partners.

Qualifications: candidates should have a Master of Science degree in Physics, Engineering, Photonics, or equivalent. Candidates must have obtained this degree within the last 4 years; however, applications of young candidates with an MSc degree expected within the next few months are also welcome. A solid background in one or more of the following areas is required: photonics, optoelectronics, mathematics, computer science. Working knowledge of scientific programming (C and/or Fortran) and Matlab and/or Labview will also be a merit. Good English knowledge is required. As part of our commitment to promoting diversity we encourage applications from women. To comply with the Marie Curie Actions rule for mobility, applicants must not have resided, worked or studied in Spain for more than 12 months in the 3 years prior to the initiation of the contract.

To apply send by email your CV to Prof. Cristina Masoller (email: cristina.masoller@upc.edu) together with a copy of your MSc degree, a certificate of the courses done and the grades obtained, and also arrange at least one recommendation letter (by a senior scientist that is familiar with your work) to be sent also to Prof. Masoller.