Permanent Research Engineer / Researcher Position in Quantum Electronics, CEA, France

CEA and its condensed matter division SPEC is offering a permanent position to a person willing to join the quantum electronics (Quantronics) group as a researcher or research engineer, to take the role of expert in circuit fabrication, microwave characterization, and control of experiments. The candidate will have the opportunity to bring his/her energy and creativity to multiple research projects within the Quantronics group.

Job description:

- Supervise and assist other researchers and students in quantum circuit fabrication for the different ongoing projects.
- Improve fabrication processes and develop new ones; Produce and/or follow up the corresponding documentation.
- Participate in designing circuits and help in their electrical and microwave characterization, at room and cryogenic temperature; improve the electrical setups devoted to these characterizations.
- Implement software programs for data acquisition and processing, or assist the researchers in this task.

Required qualifications:

- PhD in experimental physics, engineering or material science concerning micro and nanofabrication of devices, preferably quantum.
- The candidate should have a solid competence in and an enthusiasm for micro- and nano-fabrication, as well as practical skills in one or more of the following domains:
  - Microwave and electrical measurements at cryogenic temperature.
  - Python programming and remote control of measuring devices.
- The candidate must be able to work easily with others, and communicate in English and French, although speaking French is not a prerequisite.

About the laboratory:

CEA is the *Alternative Energies and Atomic Energy Commission*, a French public research organization in the areas of energy, defense and security, information technologies and health technologies. Its condensed matter physics department (SPEC) is a CEA-CNRS research unit with about 160 people, and is part of Paris-Saclay University. It is carrying out condensed matter research on a broad spectrum going from quantum physics to complex systems. The Quantronics group of SPEC (about twenty people including nine permanent researchers and a technician) conducts research on several subjects of basic and applied quantum electronics: Josephson electronics, superconducting quantum bits, hybrid circuits coupled to dopant spins in crystals, quantum sensors, etc. The group relies for that on SPEC's nanofabrication facility (cleanrooms, equipment for thin film deposition and etching, optical and e-beam lithography, etc.) in which the researchers fabricate the circuits for their experiments, and on a set of experimental setups to perform these experiments at milliKelvin temperatures.

How to apply:

Applicants must provide curriculum vitae, list of publications and patents, two recommendation letters, statement of research experience and accomplishments, letter of motivation that directly addresses how their profile is in lines with the job opening, and any other document that they consider as relevant. CEA is an equal opportunity institute. Apply **before August 31, 2021** on the CEA recruitment web platform by connecting to https://www.emploi.cea.fr and typing "Quantronics" in "mots clés".

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