

CEA Grenoble Research engineer tenure track open position: Digital design of spintronic integrated circuits

Positioned at the crossroad of science and technology, **SPINTEC (SPINtronique et TEchnologie des Composants)** is one of the leading spintronics research laboratories worldwide. **Ideally located on the MINATEC campus in Grenoble**, SPINTEC was created in 2002 and rapidly expanded to currently reach ~100 peoples of which 39 Permanent staff from CEA, CNRS and Grenoble-Alpes University. **Part of the INAC Institute, SPINTEC benefits from a local environment with a large spectrum of opportunities:**

- INAC gathers 5 laboratories, 480 researchers, technicians, doctoral and post-doctoral students, covering a large variety of interdisciplinary skills (materials, characterization, theory and simulation) and has access to several leading scientific and technological platforms (PTA cleanroom, nano-characterization platform PFNC ...).
- The Giant Campus Site (Scientific Presqu'île) offers an exceptional scientific environment with partners such as the institutes CEA-LETI, the Laboratory of Technologies for Microelectronics (CNRS-UGA), or major European facilities (ESRF and ILL).
- The Grenoble site, whose excellence was recently recognized by the national label IDEX, bears a collective dynamics of 4 research challenges, of which the "digital" is of great importance.



Position description:

SPINTEC has developed over the last decade many tools **for integrating spintronic devices into standard CMOS microelectronics**: design tools have been developed and elementary proofs of concept circuits have been built and tested. The integration of these elementary building blocks into more complex digital circuits at the IP or system level represents today a crucial issue. **SPINTEC wishes to strengthen its expertise in this area by hiring a permanent staff research / engineer within the "Spintronic IC Design» team of the laboratory.**

Candidates may be engineers with significant experience (4-7 years) or PhDs with a post-doctoral experience (2-5 years). Skills in the following areas are needed: standard digital systems architectures (namely processors), architecture and programming of FPGAs, VHDL and Verilog languages, digital design flows and tools related to ASIC and FPGA circuits (logic simulation, logic synthesis, test insertion method, clock and power gating, place and route ...), basics on emerging non-volatile memories. The ability to conduct successful research and development activity on targeted topics in a multidisciplinary environment is essential. The candidate must be able to propose and conduct original research and to have the ability to set new projects and to manage research collaborations with academic and industrial partners.



Additional information: This offer corresponds to a tenure track position at the French Atomic and Alternative Energy Commission (CEA, www.cea.fr). Offered salary depends on experience. Candidates are requested to send by email a motivation letter and a detailed CV to Dr. Lucian Prejbeanu, executive director of SPINTEC - lucian.prejbeanu@cea.fr **Deadline for application: September 18th, 2016.** Applicants will thereafter be quickly informed, and selected candidates called for an **interview in Grenoble planned end of September 2016.**

Useful links : Inac.cea.fr; www.spintec.fr; www.giant-grenoble.org; www.communaute-univ-grenoble-alpes.fr