



Are you a firmware engineer with FPGA and VHDL experience considering working with the Italian Institute for Nuclear Physics (INFN) to operate next-generation particle physics detectors?

We are recruiting an electronics engineer to work on FPGA programming for the [Fast-Tracker \(FTK TDR - http://atlasftk.uchicago.edu/\)](http://atlasftk.uchicago.edu/) and [Hardware Track Trigger \(ATLAS TDAQ phase-II TDR\)](#) projects part of the ATLAS experiment at CERN. The timeshare between the two project

is subject to change.

You have a degree in electronics engineering or an equivalent work experience.

You match the skills and expertise detailed in the job descriptions.

You are self-motivated, can work by objective and work effectively in collaboration.

The work location is CERN, Meryin site with possible periods in Pisa (Italy). The appointment is initially for two years with a INFN postdoc (assegno di ricerca) complemented with support for living in the CERN area.

Your responsibilities and duties will include

- Write the specification of new VHDL logic blocks
- Design and validation of VHDL logic for Field Programmable Gate Arrays (FPGA)
- Integration and commissioning of the above logic in the Fast Tracker and/or Hardware Track Trigger system
- Debugging, evaluation and consolidation of faults and problems in under commissioning trigger electronics
- Identify and recommend system improvements to improve technical performance
- Working with international teams of researchers, engineers, technicians and students

Skills and Experience required

- Degree in electronics engineering, or in a related field, or on the field experience at an equivalent level
- Experience working with FPGAs
- Past experience in VHDL coding and validation
- Experience in problem solving and debugging in general and for FPGA logic
- Hands on approach with strong sense of task ownership and responsibility
- Familiarity with best industry practices, technical procedures and good documentation.

Desirable skills

- Experience with C++, python, shell scripting and linux systems

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