



University of Pittsburgh

Kenneth P. Dietrich School of Arts and Sciences
Shared Research Support Services

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Dietrich School of Arts and Sciences Electronics Shop and the ATLAS team at the University of Pittsburgh are seeking an Electronics Design Engineer. The position falls under Shared Research Support Services and joins an established ATLAS design team and work on an array of high level, high impact scientific projects across the natural sciences. The position is funded for at least 54 months beginning April 1, 2020. Apply at join.pitt.edu/

Position Description:

This design engineer will work primarily with our lead engineer and established research team at the University of Pittsburgh on the HL-LHC upgrade of the ATLAS trigger system for the Large Hadron Collider at CERN. Complex analogue and digital electronic circuits will be designed and developed for a range of additional projects including but not limited to neutrino experiments at CERN and Fermilab and experiments across the natural sciences at part of the Dietrich School Electronics Shop.

The incumbent will perform high-quality, detailed work utilizing minimal cost and time. The incumbent will rely on a strong command of schematic capture and printed board design layout of multilayered circuit boards with a knowledge of IPC-610 and IPC-7351 standards. Excellent written and verbal communication skills are required to properly document the design, construction, and performance verification of electronic equipment. The incumbent will need modern FPGA design and programming experience. Strong interpersonal skills are required to facilitate close collaboration with shop and project personnel and students at the University, at other U.S. institutions, and/or at other international institutions. Occasional US and international travel required.

Minimum Qualifications:

- Bachelor's degree in electrical engineering or related field.
- 1-2 years of experience with computer-based test, measurement, and data acquisition, preferably in laboratory instrumentation.
- 1-2 years of experience with printed circuit design, preferably in high speed signals, mixed-signal circuits, and/or digital signal processing.
- Strong experience with analog and digital circuit design, in particular proficient knowledge in modern FPGA design and experience with HDL-based design.
- Strong interpersonal skills and excellent written and verbal communication.

Preferred Qualifications:

- Master's degree in electrical engineering or related field.
- Experience with large scale scientific instrumentation in collaborative projects.
- 3-5 years of experience with computer-based test, measurement, and data acquisition, preferably in laboratory instrumentation.
- 3 years of experience with printed circuit design, preferably in high speed signals, mixed-signal circuits, and/or digital signal processing.
- Working knowledge of high level programming language for data acquisitions such as LabVIEW.
- Familiarity with schematic capture and printed circuit layout software such as Multisim and Ultiboard.