



**Carleton
University**

Department of Physics

Dr. Thomas Koffas, Professor
1125 Colonel By Drive
Ottawa, Ontario, Canada K1S 5B6

Electronics Engineer Position with Physics Department, Carleton University

The experimental particle physics group at Carleton University is seeking an Electronics Engineer to work in close collaboration with the experimental physicists in our group on the development and testing of electronics for use with particle detectors. We seek candidates with experience in at least some of the following fields:

- Characterization, validation and bring-up of individual Application Specific Integrated Circuits (ASIC);
- Design of digital acquisition electronics based on field programmable logic-based devices (FPGA);
- Analog interfaces design, circuit simulations; or
- PCB layout design, prototyping, and board bring-up.

The successful candidate will be expected to develop system requirements as per experimental specifications. The position will also entail some supervision of the work of technical staff and students. The particle physics group has access to state-of-the-art software for IC/ASIC simulation/design (SPICE, Cadence), FPGA programming (Xilinx and Altera FPGA), and digital and mixed circuits design/verification (Verilog) in collaboration with the Carleton University Department of Electronics and CMC Microsystems.

The Carleton particle physics group has a wide research program that includes experiments at CERN (ATLAS) and SNOLAB. We are involved in detector development for experiments to be located at SNOLAB, detector upgrades for ATLAS with a focus on the ITk tracking detector, as well as major initiatives for next-generation detectors such as HyperKamiokande's WCTE at CERN and radiation-hard semi-conductor tracking devices for future colliders (ILC, FCC). More information on our research activities can be found at: <http://www.physics.carleton.ca/research/>

The successful candidate must demonstrate:

- Minimum of a B.Sc. or a B.Eng. or equivalent*
- Ability to work in a team environment;
- Flexibility and openness to new ideas and situations; and
- Strong analytical and problem-solving abilities to define and assess problems and then act to address them.

*Priority may be given to applicants who have three or more years of experience in a relevant research environment.

As part of the Carleton experimental physics group, the electronics engineer will experience the challenges, rewards, and unique opportunities of working in scientific research as a member of diverse, inclusive, international collaborations.

The position is based in Ottawa although travel to the experimental sites may be required. Candidates interested in this position should send a CV and arrange to have at least two letters of recommendation sent to:

Prof. Thomas Koffas
Department of Physics
2410 Herzberg Laboratories
Carleton University
Ottawa, ON, K1S 5B6
CANADA

Email: Thomas.Koffas@cern.ch

Applications will be accepted until the position is filled. Carleton University is committed to fostering diversity within its community as a source of excellence, cultural enrichment, and social strength. We encourage all qualified persons to apply.