Mr Dominique Gigi Electronics Engineer CERN Dept PH/CMD Genève 23 1211 Meyrin Suisse

CERN, 20th August 2015

Subject: Marius Peter internship

To Whom It May Concern:

Marius pursued an electronics engineering internship between June 22nd and July 24th 2015 within our department. Our department collaborates with one of CERN's 4 major scientific experiments (CMS: Compact Muon Solenoid). During this internship, Marius had to learn new programming languages (VHDL, Tcl/Tk...) as well as hardware programming concepts (FPGA: Field Programmable Gate Array).

Firstly, he performed documentation work for his assigned project, involving a FPGA with an ARM-based SoC. He was then required to learn both hardware and software concepts in order to implement the hardware program on the FPGA. This enabled him to apply a new workflow and to develop a GUI interface for the previously TUI-based FPGA.

Marius demonstrated his ability to work independently throughout his time at CERN, and overcame several technical hurdles thanks to his critical thinking skills and perseverance. The 5-week timespan was too short to complete the project entirely, however the documents and preliminary work that Marius produced enabled us to pursue further development work.

Dominique Gigi Internship Supervisor dominique.gigi@cern.ch