

FPGA Developer Intern

Internship reference: VOSYS_2017_IN_003

Starting date and duration: February – September (2018) (6 months)

Type of contract: Full time internship

Monthly salary: 1100€ gross salary

Work location: Grenoble (Rhône Alpes), France

Description and objectives:

Virtual Open Systems, a French virtualization start up active in many European research projects, proposes an internship in the area of mixed-criticality systems acceleration by means of virtualized hardware accelerators on multiprocessor system-on-chips (MPSoC).

In the research and development team of Virtual Open Systems, the candidates will have the opportunity to work on hardware MPSoC design and low level embedded software development (Linux kernel drivers, hypervisor extensions, etc). This internship includes both research and development activities (hardware and software), targeting Xilinx MPSoC.

The candidate will have to develop a demonstrator of a component aiming to manage hardware acceleration virtualization on MPSoC. In a first time, he will achieve the state of the art of existing solutions. Then, he will study and design a software and hardware solution. The last part of the internship will consist in implement a proof of concept of the hardware accelerators virtualization manager component that will be tested and verified.

Activities:

- FPGA design and development with Vivado (Xilinx) and Zynq UltraScale+ MPSoC
- State of the art analysis
- Software development
- FPGA IPs integration, test and verification
- FPGA Implementation
- Scientific paper dissemination

Required skills:

- Results-driven attitude
- Programming languages - VHDL, C
- Strong FPGA Design Flow skills
- Real Time systems, FreeRTOS (Optional)
- Understanding of the Linux kernel (driver development), bash
- Excellent communication and good teamwork skills
- Written and spoken English communication skills

How to apply

Any application (resume+cover letter preferably in PDF format) should be sent by email at the following address : contact@virtualopensystems.com