

Joint ICTP-IAEA School on Zynq-7000 SoC and its Applications for Nuclear and Related Instrumentation

21 August - 15 September, 2017
Trieste, Italy



IAEA

International Atomic Energy Agency

Further information:

Activity URL: <http://indico.ictp.it/event/7987/>

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In this hands-on school the participants will go deeply into the technology of an all programmable system on chip. The aim is to familiarize them with underlying software design tools and hardware platforms based on Zynq-7000 devices through tutorials and project examples in the field of nuclear applications.

Description:

Traditional FPGA devices have been utilized in many nuclear and related instruments for the past few decades, allowing multiple and parallel processing of signals from radiation detectors and other sensors. These features make instruments more compact by reducing number of required processors and minimizing complexity of analog electronics for signal processing. In the last few years new programmable SoC emerged which integrate the software programmability of powerful ARM Cortex-A9 processor with the hardware configurability of a traditional FPGA.

In the first two weeks participants will undergo extensive courses and laboratory exercises on Xilinx Zynq-7000 SoC architecture. The school will culminate in the execution of discrete practical tasks as single project team to solve a multi-dimensional problem relevant to the participant group.

Participation in this school will be limited to 16 persons. Applicants are advised to include a strong statement of motivation, letters of reference and fully complete the online questionnaire.

Topics:

- Zynq all programmable SoC system architecture
- FPGA technology
- VHDL design
- ARM cortex-A9 general architecture
- Embedded-C programming
- Vivado Design Suite
- High level synthesis
- Model-based DSP design using system generator
- Hands-on laboratory activities

How to apply:

Online application:
<http://indico.ictp.it/event/7987/>

Female scientists are encouraged to apply.

Grants:

A limited number of grants are available to support the attendance of selected participants, with priority given to participants from developing countries. There is no registration fee

Directors:

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Local Organizer:

M.L. CRESPO, ICTP, Italy

Workshop Speakers:

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F. RINCON CALLE, University of Castilla-La Mancha, Spain
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Deadline:

1 May 2017

