

Advanced Workshop on FPGA-based Systems-On-Chip for Scientific Instrumentation and Reconfigurable Computing



26 November 2018 - 7 December 2018
Trieste, Italy

Further information:
<http://indico.ictp.it/event/8342/>
smr3249@ictp.it

This hands-on workshop will cover key aspects of modern programmable Systems-on-Chip and its applications to advanced scientific instrumentation and reconfigurable computing. Emphasis will be given to nuclear applications with the collaboration of the Italian Institute of Nuclear Physics.

Description:

Systems-on-Chip (SoC) based on FPGA and dual-core processors are characterized by their low-cost along with a huge versatility to implement different concurrent tasks and critical activities such as hard real time hardware control and high performance multichannel data acquisition, processing and transmission. These remarkable features make SoC devices very attractive for frontier scientific applications.

The workshop will consist of about 65 hours of theoretical lectures and assisted hands-on activities. The laboratory sessions will count on state-of-the-art software tools and development hardware platforms. The selected faculty will be composed of lecturers and speakers from prestigious universities, hi-tech companies and research institutions.

The workshop will be primarily addressed to researchers, teachers and engineers of various disciplines who need to master cutting-edge technologies for their scientific, academic and professional activities.

Topics:

- Modern Digital Design
- FPGA Technology
- VHDL for Modeling, Simulation and Logic Synthesis
- Embedded C Programming
- SoC Design Methodology
- SoC Architecture, Functional Blocks and External Interfaces
- HW/SW System Design
- High Level Synthesis
- Data Acquisition, Processing and Transmission
- SoC Trends and Advanced Scientific Applications
- Laboratory Sessions for Hands-On Training and Experimentation

Directors:

P. BAZARGAN SABET, Pierre and Marie Curie University, France
N. ABDALLAH, Microsemi Corp., U.S.A.
A. CICUTTIN, ICTP, Italy
M.L. CRESPO, ICTP, Italy

Local Organizer:

M.L. CRESPO, ICTP, Italy

Workshop Speakers:

S. LEVORATO, INFN-Trieste, Italy
C. SISTERNA, National University of San Juan, Argentina
J. DONDO GAZZANO, University of Castilla-La Mancha, Spain
F. RINCON CALLE, University of Castilla-La Mancha, Spain
I. KONOROV, TU München, Germany
A. JARA, Intel Corp., U.S.A.
K. MANNATUNGA, ICTP, Italy
M. SANTAMBROGIO, Politecnico di Milano, Italy

How to apply:

Online application:
<http://indico.ictp.it/event/8342/>

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.

Deadline:

3 September 2018



The Abdus Salam
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Trieste, Italy

