

Workshop Compact ZYNQ-7000 SoC for HW Designers

The main emphasis of the Workshop “Compact ZYNQ-7000 SoC for HW Designers” is placed on the creation of hardware platforms for the new ZYNQ-7000 SoC technologies as well as the handling of the required XILINX Vivado Design Suite.

At the beginning of this workshop, the system developer gets to know the basic architectural elements of the new ZYNQ-7000 technology devices. On the one hand, the processor system (PS) will be covered. The different building blocks are introduced and discussed in detail along with their configuration possibilities. On the other hand, the programmable logic (PL) and the AXI interface to the processor system are explained. Another major topic is dedicated to the creation and simulation of streamlined AXI4 based peripheral components. Moreover, interrupt handling and the addition of software projects and

their download process onto the chip are examined. The acquired knowledge is reinforced through exercises carried out by each attendee.

To focus on the software development tool (SDK), please refer to the workshop “Compact ZYNQ-7000 SoC for SW Designers” which is the follow-up class to this one.

Applicable technologies

XILINX ZYNQ-7000 SoC

Requirements

Knowledge of VHDL and FPGA technology

Basic knowledge of the programming language C

Duration and Cost

Duration: 3 days

Cost: € 2.100,- net per person including detailed training material, drinks in the breaks and lunch

Agenda

- Embedded Design Overview
- IP Integrator and the PS Configuration Wizard
- Software Development Using SDK
- Introduction to AXI
- Interrupts
- Adding Hardware to an Embedded System
- Cortex-A9 Processor Basics
- Designing a Custom AXI Peripheral
- Using the Create and Package IP Wizard to Build a Custom AXI Peripheral
- Bus Functional Model Simulation