

Zynq UltraScale+™ All Programmable MPSoC : System Architecture

2 days - 14 hours

OBJECTIVES

- This course provides system architects with an overview of the capabilities and support for the Zynq UltraScale+ MPSoC family.
- After completing this comprehensive training, you will have the necessary skills to:
 - Effectively use power management strategies and leverage the capabilities of the platform management unit (PMU)
 - Identify mechanisms to secure and safely run the system
 - Outline the high-level architecture of the devices
 - Define the boot sequences appropriate to the needs of the system

RELATED TRAININGS

- Zynq UltraScale+™ All Programmable MPSoC : Hardware Design
- Zynq UltraScale+™ All Programmable MPSoC : Hardware and Software Design
- Zynq™ All Programmable SoC : System Architecture
- Zynq™ All Programmable SoC : Embedded Systems Hardware Design
- Zynq™ All Programmable SoC : Embedded Systems Software Design
- Zynq™ All Programmable SoC : Embedded Systems Advanced Hardware Design
- Zynq™ All Programmable SoC : Embedded Systems Advanced Software Design

PREREQUISITES

- Understanding of the Zynq-7000 architecture
- Familiarity with embedded operating systems

PARTNERS



CONFIGURATIONS

- Software Configuration :
 - Vivado® Design Suite 2017.3 (May require special Zynq UltraScale+ MPSoC family license)
- Hardware emulation environment :
 - VirtualBox
 - QEMU
- Ubuntu desktop
- PetaLinux
- Hardware configuration:
 - Recent computer (i5 or i7)
 - Windows 7 64b
 - At least 8GB RAM
 - Minimum display resolution 1024 x 768, recommended 1920x1080

CHAPTERS

DAY 1

- Zynq UltraScale+ MPSoC Overview {Lecture, Lab}
- Zynq UltraScale+ MPSoC HW-SW Virtualization {Lecture, Lab}
- QEMU {Lecture, Lab}

- Zynq UltraScale+ MPSoC Security and Software {Lecture}

DAY 2

- Zynq UltraScale+ MPSoC Power Management {Lecture, Lab}
- Zynq UltraScale+ MPSoC System Coherency {Lecture}
- Zynq UltraScale+ MPSoC DDR and QoS {Lecture, Demo, Lab}
- Zynq UltraScale+ MPSoC Booting {Lecture, Lab}
- Zynq UltraScale+ MPSoC Ecosystem Support {Lecture}

TEACHING METHODS

- Face to face
- Presentation by video projector
- Provision of paper-based course materials

SUPPORT

- Authorized Trainer Provider XILINX : Engineer Electronics and Telecommunications ENSIL
 - Expert FPGA XILINX - Language VHDL - DSP - Design RTL

METHODS OF MONITORING AND ASSESSMENT OF RESULTS

- Attendance sheet
- Evaluation questionnaire
- Evaluation sheet on:
 - Technical questionnaire
 - Result of the Practical Works
 - Validation of Objectives
- Presentation of a certificate with assessment of prior learning

CONCERNED PUBLIC

- Technicians and Engineers in Digital Electronics

CONTACT

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