

Designing with the Zynq UltraScale+ RFSoc

3 days - 21 hours

OBJECTIVES

- After completing this comprehensive training, you will have the necessary skills to:
 - Describing the RFSoc family in general
 - Identifying applications for the RF Data Converter and SD-FEC blocks
 - Configuring, simulating, and implementing the blocks
 - Verifying the RF Data Converter on real hardware

RELATED TRAININGS

- Zynq UltraScale+™ MPSoC : System Architecture
- Zynq UltraScale+™ MPSoC : Hardware and Software Design

PREREQUISITES

- Understanding of the Zynq-MPSoC architecture
- Basic familiarity with data converter terms and principles
- Basic familiarity with forward error correction terms and principles

PARTNERS



CONFIGURATIONS

- Software Configuration :
 - Vitis Unified Software Platform 2020.1
- Hardware configuration:
 - Recent computer (i5 or i7)
 - OS Linux 64-bits (Windows 10 compatible)
 - At least 16GB RAM
 - Display resolution recommended 1920x1080
 - Zynq UltraScale+ RFSoc ZCU111 board (will be lent)

CHAPTERS

DAY 1

- Zynq UltraScale+ RFSoc Overview {Lecture, Demo}
- RF-ADC Hardware {Lecture, Demo, Lab}

DAY 2

- RF-DAC Hardware {Lecture, Demo, Lab}
- RFSoc Hardware {Lecture, Demo}
- Data Converter Design {Lecture, Demo, Lab}

DAY 3

- Practice on ZCU111 {Lecture, Demo, Lab}
- Soft-Decision FEC Hardware {Lecture, Demo, Lab}

TEACHING METHODS

- Inter-company training :
 - Online training
 - Presentation by Webex
 - Provision of course material in PDF format

SUPPORT

- Authorized Trainer Provider XILINX : Engineer Electronics and Telecommunications ENSIL
 - Expert FPGA XILINX - Language VHDL/Verilog - RTL Design
 - Expert SoC & MPSoC XILINX - Language C/C++ - System Design
 - Expert DSP & RFSoc XILINX - HLS - Matlab - Design DSP RF
 - Expert ACAP XILINX - AI Engines - Heterogenous System Architect

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

Administratif : +33 (0)6 30 94 50 17

Formateur : +33 (0)6 74 52 37 89

info@mvd-training.com