

Migrating to the Vitis Embedded Software Development IDE

Sandeevani is the Training Division of CoreEL Technologies (I) Pvt Ltd and Authorized Training Provider for Xilinx in India for the past 20 years

Course Description:

This workshop demonstrates the tools and techniques required for software design and development using the Vitis™ unified software platform. The emphasis of this course is on:

- Reviewing the basics of using the Vitis platform
- Migrating existing SDK projects to the Vitis platform
- Developing software applications using the Vitis platform

This course combines lectures with lab exercises to reinforce the concepts.

Who can attend?

- Existing embedded developers using Xilinx SDK tools for software development
- Faculty members interested in exploring embedded system design with Xilinx tools and Hardware platforms
- Post graduate students interested in gaining knowledge of embedded system design with Xilinx tools and Hardware platforms

Pre-requisites:

Conceptual understanding of embedded processing systems as it relates to the Xilinx ecosystem (specifically writing and modifying scripts, user applications, and boot loader operation)

Course Duration

- 3 days (9Hours – 3 hours per day)

What do I gain?

After completing this comprehensive training, you will have the necessary skills to:

- Develop and deploy an application on a Xilinx embedded system using the Vitis unified software platform
- Migrate an existing SDK project to the Vitis platform
- An introduction to how software/hardware engineers and application developers can benefit from the Vitis unified software environment and OpenCL framework

Course Contents

Day 1:

- Overview of Embedded Software Development
- Overview of the process for building a user application. {Lecture}
- Driving the Vitis Software Development Tool
- Introduces the basic behaviors required to drive the Vitis tool to generate a debuggable C/C++ application. {Lecture, Lab}
- Migrating from SDK to the Vitis Platform

- Overview of migrating existing Xilinx SDK projects to Vitis software development projects {Lecture, Demo}

Day 2:

- Standalone Software Platform Development and Coding Support
- Covers the various software components, or layers, supplied by Xilinx that aid in the creation of low-level software. Also the basic services (libraries) available. {Lecture, Lab}
- Linux Software Application Development Overview
- Highlights important parts of the underlying Linux system as it pertains to applications. {Lecture, Lab}
- Building a Linux Application in the Vitis IDE
- Reviews the use of the Vitis tool for Linux software development. {Lecture}

Day 3:

- System Debugger
- Describes the basics of actually running a debugger and illustrates the most commonly used debugging commands. {Lecture, Lab}
- Profiling Overview
- Introduces the purpose and techniques for profiling a user application. {Lecture, Lab}
- Explains how software/hardware engineers and application developers can benefit from the Vitis unified software environment and OpenCL framework

Software Tools: Vitis unified software platform 2019.2

Hardware:

- Architecture: Zynq UltraScale+ MPSoC
- Demo board: Zynq UltraScale+ MPSoC ZCU104

Registration link: [Click here to register](#)