

## Online On-demand – FPGA Architecture – Xilinx UltraScale and UltraScale+

**Sandeepani is the training division of CoreEL Technologies (I) Pvt Ltd and Authorized Training Provider for AMD-Xilinx in India**

### Course Description:

This self-paced online course gives participants an in-depth view of the UltraScale and UltraScale+ FPGA Architecture from Xilinx. It covers the various logic, memory, DSP, clocking and I/O resources available on the UltraScale and UltraScale+ family of Xilinx devices. The program comes with insightful theory lectures, lab code and lab demos.

### Who can attend?

- Engineers who are new to FPGA technology
- Faculty, Research Scholars and students who need to understand FPGA Architecture for their research or project work

### Pre-requisites:

- Knowledge of digital circuits
- Basic HDL Knowledge (Verilog or VHDL)

### Access:

- Login and password will be shared within 1 business day after payment and registration
- Content will be made available for 1 month from start of access

### Software Tools:

- Xilinx Vivado

### What do I gain?

- Get a broad overview of typical FPGA architecture
- Understand available resources on Xilinx UltraScale and UltraScale+ FPGA devices
- Learn how various logic, memory, DSP, clocking and I/O resources can be utilized

### Course Contents:

- Chapter 1 – Introduction to FPGA Families
  - Video lecture – Introduction to FPGA Families
- Chapter 2 – CLB Resources
  - Video lecture – 7-Series CLB Resources
  - Lab demo – 7-Series CLB Resources
  - Video lecture – UltraScale CLB Resources
  - Lab demo – UltraScale CLB Resources
  - Video lecture – HDL Coding Techniques
  - Lab demo – HDL Coding Techniques
- Chapter 3 – Memory Resources
  - Video lecture – 7-Series LUT as memory and shift register
  - Lab demo – 7-Series LUT as memory and shift register
  - Lab demo – UltraScale CLB as shift register
  - Video lecture – 7-Series BRAM Resources
  - Lab demo – 7-Series BRAM Resources
  - Lab demo – UltraScale BRAM Resources

- Lab demo – UltraScale Distributed RAM Resources
- Video lecture – URAM Resources
- Lab demo – URAM Resources
- Chapter 4 – DSP Resources
  - Video lecture – Comparison of 7 Series and UltraScale DSP Resources
  - Lab demo - 7 Series and UltraScale DSP Resources
- Chapter 5 – Clocking Resources
  - Video lecture – 7-Series Clocking Resources
  - Lab demo – 7-Series Clocking Resources
  - Video lecture – UltraScale Clocking Resources
  - Lab demo – UltraScale Clocking Resources
- Chapter 6 – Design Migration Techniques
  - Video lecture – Design Migration Techniques
  - Lab demo – Design Migration Techniques

**Course Fee: INR 6,999/- (Inclusive of tax. Course fee is non-refundable)**

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

**Payment Guidelines:**

Participants of Sandeepani training modules can make the course fee payment through online transfer via Google Pay/PhonePe/UPI using the below details and proof of the same to be scanned & mailed to [training@coreel.com](mailto:training@coreel.com). For assistance, contact us: +91-9844182555, +91-9686690000.

UPI ID: coreeltechnologiespvtltd@kbl

Current Account No: 0947000104207601

IFSC Code of Bank: KARB0000094

BHIM UPI PAYMENT ACCEPTED  
SCAN QR CODE TO PAY

