

Certificate Course in VLSI Design

Objective of the Course:

This course aims to providing detailed knowledge in VLSI design process starting from digital design, hardware descriptive languages, RTL, synthesis & simulation, verification, FPGA programming & implementation. In this process the student will understand the entire logic design process .

Learning Outcome:

After the end of the course the student will be able to design a significant VLSI project having a set of objective criteria and design constraints.

Duration of the Course: 4 weeks (40 Hrs.)

Course Fee : 2500/- + GST (18%)

**Minimum Eligibility Criteria: Pursuing/Passed BE/B.Tech/BCA/BSc
(Electronics)**

COURSE OUTLINE

Sr. No.	Modules to be Covered
1	Digital Design Review
2	Hardware Description Language (Verilog HDL)
3	FPGA Prototyping

Detailed Course Syllabus:

1. Digital Design Review

- Combinational Circuit Design
- Sequential Circuit Design
- Design Examples & Case Studies

2. Hardware Description Language (Verilog HDL)

- Introduction to Verilog HDL & Hierarchical Modeling Concepts
- Lexical Conventions & Data Types
- System Tasks & Compiler Directives
- Modules, Ports and Module Instantiation Methods
- Modeling methods.
- Design Verification using Test benches

3. FPGA Prototyping

- Introduction to FPGA
- Logic Synthesis for FPGA