

## Features

**Fully Technical & Practical Training**

**Person to person Training**

**Professional and Experience Faculty**

**Hands on experience on EDA tools**

**Advance verification methodology**

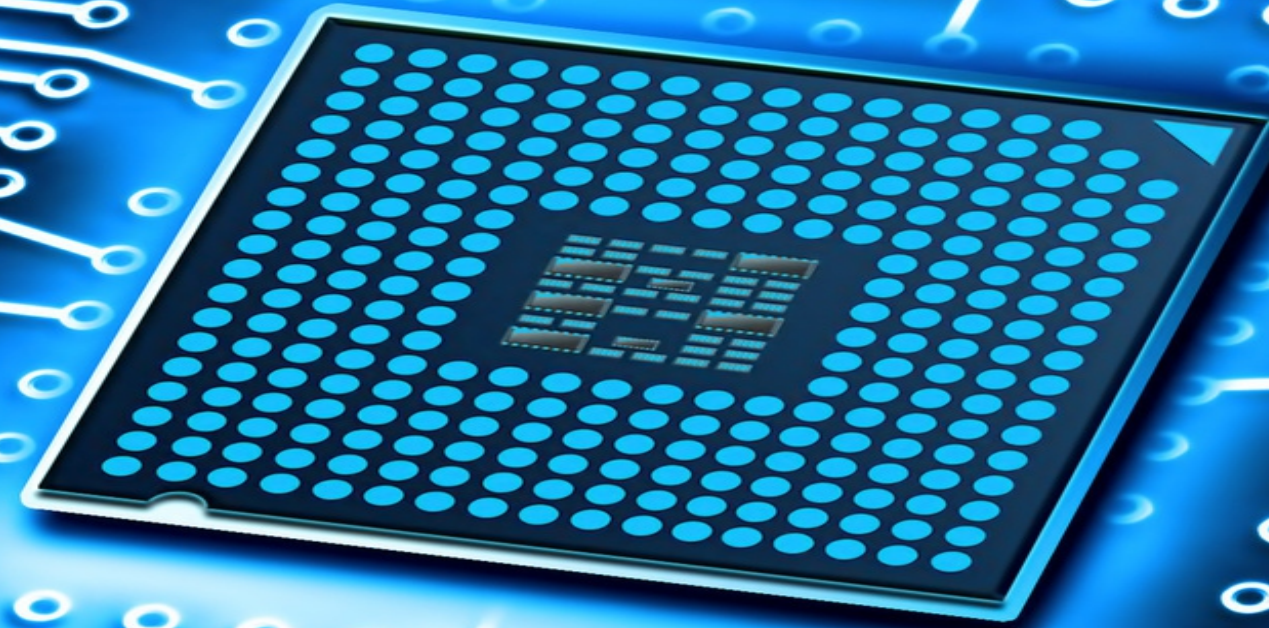
**Industrial standards projects**

**Limited Seats to Give More Personalized Attention**

**Expert Talk From Industrial Experts**

**Knowledge Sharing Session**

# VLSI Brochure



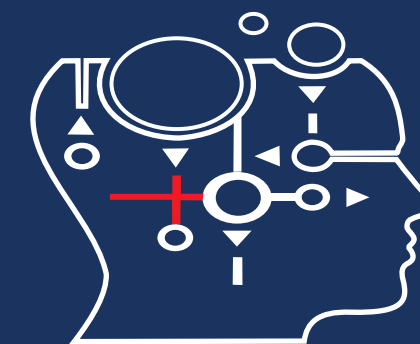
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Technology

**MODULE 1**  
**Introduction to VLSI**

- \* what is VLSI ?
- \* Introduction
- \* VLSI Design Flow
- \* Scope
- \* Opportunities

**MODULE 2**  
**Digital Electronics**

- \* Digital number system
- \* Logic Gates
- \* Logic Minimization
- \* Combinational Circuit
- \* Sequential Circuit
- \* Finite State Machine
- \* Memories

**MODULE 3**  
**UNIX Basic**

- \* Introduction
- \* Handling directory Operation from Command Prompt
- \* Handling files Operation from Command Prompt
- \* Handling File Editor Application (vi, vim , gvim)

**MODULE 4**  
**Verilog HDL**

- \* Introduction
- \* Verilog Data Types & Operators
- \* Verilog Assignment & construct
- \* Verilog System Task
- \* Combinational & Sequential design
- \* Synchronous & Asynchronous design
- \* Task & Function
- \* Self Checking TB
- \* Code Coverage

**MODULE 5**  
**FPGA, ASIC, SOC**

- \* Introduction
- \* What is FPGA ?
- \* What is ASIC ?
- \* What is SOC ?
- \* Comparison Between FPGA, ASIC, SOC

**MODULE 6**  
**STA Basic**

- \* Introduction
- \* Delay calculation
- \* Circuit maximum Operating frequency calculation
- \* Skew and jitter
- \* clock domain and variation
- \* Clock Network Distribution

**MODULE 7**  
**System Verilog**

- \* Introduction
- \* System Verilog Data types
- \* Arrays In SV
- \* Task & Function In SV
- \* Interface
- \* OOPS & Advance OOPS Concept
- \* Randomization
- \* Threads, Mailbox, Semaphore, Events
- \* System Verilog TB Environment
- \* Function Coverage

**MODULE 8**  
**System Verilog Assertions**

- \* Introduction
- \* Immediate assertion
- \* Simple assertion
- \* Sequence composition
- \* ABV
- \* Assertion Coverage

**MODULE 9**  
**UVM Methodology**

- \* Introduction
- \* UVM Factory
- \* UVM phases
- \* UVM Reporting Mechanism
- \* TLM
- \* UVM Sequence
- \* Virtual Sequence & Virtual Sequencer
- \* UVM TB Environments
- \* UVM CALLbacks

**MODULE 10**  
**Python Scripts**

- \* Introduction
- \* Variable Types
- \* Operators
- \* number, string and list
- \* If else and loops
- \* tuple and dictionary
- \* Function
- \* File I/O Operation

**MODULE 11**  
**Mini Projects**

- \* Verilog based mini project
- \* System Verilog based mini project
- \* UVM based mini project

**MODULE 12**  
**Industrial Standard Project**

- \* Specification
- \* Design Architecture
- \* RTL Design using verilog HDL
- \* RTL Verification using system verilog/UVM
- \* AXI4/ AXI3/ AHB/ APB/ ASB/ Bridge
- \* SPI/ I2C/ UART
- \* And many more.....