

MODULE – 1

- Basic electronics
- Digital Logic Design Fundamentals
- Design flow methodology
- VHDL: - Language Fundamentals (entity, Architecture, Statements, Configuration).
- Designing Logic Gates Through test bench wave form.
- Sequential statement (IF, FOR, LOOP, CASE FOR GENERATE).
- Concurrent statements.

MODULE-2

- Data T\ypes, operators and attributes.
- Modeling latches, flip-flops, multiplexers, address decoder
- Designing shift register, counter, memory
- State Machines (Definition types, examples and industry rules)

MODULE-3

- CPLD: Hard ware configuration with Xilinx
- Testing programmers developed earlier on CPLD board
- Interfacing : LED, Switch Segment display
- Driving Stepper Motor.

MODULE-4

- Verilog design
- Verilog HDL syntax
- Interfacing : LED, Switch, seven segment display

MODULE-5

- Designing traffic light controller, vending machine.
- Design ALU, Memory
- Developing hardware project on VHDL.

COURSE DELIVERABLES

- EBook on VHDL programming
- Hardware interfacing manual.