CENTRAL TOOL ROOM & TRAINING CENTRE, BHUBANESWAR
Lesson Plan for Online Courses

SUBJECT: VLSI   **DURATION: 15 DAYS**   **PER DAY: 3hrs**

Eligibility: Degree or Diploma in Electronics, Instrumentation, Electrical or Equivalent.

OBJECTIVE:

At the end of the Session Participants Should Know:

* the concept VLSI design
* frontend and backend designs
* FPGA programming and its applications

DAY	CONTENTS
Day 1	*Online software installation guidance with self-introduction and interaction. *Software installation guidance. *Introduction to CTTC.
Day 2	* Introduction to VLSI and its application, CAD tools * Introduction to Frontend design of VLSI
Day 3	* Designing of various combinational circuits using DSCH3 software * Symbol level design
Day 4	* Designing of sequential circuits in the software * Introduction to CMOS technology and its application
Day 5	* Steps of IC fabrication and design process * layout design steps, lambda rules
Day 6	* Foundry level of IC fabrication and comparison between different factors of circuits.
Day 7	* Introduction to VHDL and it's different architectures
Day 8	* VHDL programming using XILINX software, VHDL test bench.

Day 9	* VHDL programming for various sequential circuits.
Day10	* Programming using for loop, variable
Day 11	* VHDL coding using structural architecture
Day 12	* Different PLD architectures, features, specifications and applications.
Day 13	* Introduction to VERILOG code and its applications
Day 14	* Loading and testing of various HDL codes in FPGA PLD
Day 15	* Sample projects * Review, Feed Back Session & Validation.

N.B:

*Classes & Demonstration will be conducted every day for two hours & doubt clear Session of one hour with all-day online/on-call support.

*Hard copy of Certificate will be sent to Participant's address by post or it may also be collected from our Centre when the situation gets normalized.

*Each trainee can avail free one-week Internship (Practical/Project-based) training at our Centre after this pandemic situation gets normalized.

You may contact the coordinator for course-related further information.
Course Coordinator: Swatishree Dora
Contact No:9861202031