Course: Digital System Design

Course Code: noc21-ee39

Session: 2020-21

Duration: 12 Weeks

Assessment procedures: Weekly Assignment (25%) + proctored certification Exam (75%)

Curriculum of the Course:

Week 1: Introduction of digital systems. Number system

Week 2: Number representation: BCD, floating point numbers

Week 3: Boolean algebra, application of Boolean algebra in minimization of Boolean expressions

Week 4: Boolean minimization using K-map and Quine McCluskey method. Introduction to Verilog

Week 5: MSI Logic: Multiplexer, encoder, decoder

Week 6: Arithmetic circuits: Adder, subtractor, multiplier, comparator

Week 7: Latches and flipflop (SR, JK, T, D), counters

Week 8: Sequential logic like Registers, introduction to behavior modeling in Verilog

Week 9: Finite state machine, state graphs and tables.

Week 10: Reduction of state table and state assignments. Arithmetic circuits using sequential design.

Week 11: Register transfer level (RTL) design, RTL design examples

Week 12: FPGA, VLSI design flow using HDL, introduction to behavior, logic and physical synthesis.

List of students enrolled

S. No	Name of Student
1	Ritika Agarwal
2	Aditya Gupta
3	Rakshita Agarwal
4	Yogesh Sharma
5	Divyansha Jain
6	Siddharth Harshit
7	Shubham Jain
8	Jay Shrivastava
9	Rashi Kinra
10	Kusum Sharma
11	Malika Khandelwal
12	Manali Sharma
13	Manisha Balani
14	Manoviraj Singh Shekhawat

S. No	Name of Student
15	Mansi Sharma
16	Ritik Khandelwal
17	Arpit Jain
18	Saurabh Singh Jat
19	Shivam Garg
20	Shivansh Dosi
21	Somil Jain
22	Soumya Agarwal
23	Suraj Sharma
24	Shubham Udsaria
25	Sumit Gupta
26	Yash Dubey
27	Poorvaja Verma
28	Vinayak Gupta