

	GURGAON INSTITUTE OF TECHNOLOGY & MANAGEMENT	
	Department: ELECTRONICS & COMMUNICATION Branch/Sem: ECE / EE/ 4th	Session: Jan-July 18 Subject Name & Code: Digital Electronics EE-204-F
Lesson Plan		TEACHER: Mr. Rakesh Kumar Gill

Books Referred:

- A. R.P jain, Modern Digital Electronics, 3rd Edition, Tata McGraw Hill.
- B. M. Morris Mano & M.D. Cilletti, 4th Edition , Pearson Education
- C. Pedroni-Digital Electronics & Design, Elsevier.

Lecture No.	Topics to be Covered
1.	Introduction to digital system and binary numbers
2.	Number system conversions and Signed Binary numbers
3.	Binary Codes, Cyclic Codes
4.	Error detecting & error correcting codes, hamming code
5.	The K-map method up to five variable
6.	Don't care conditions, POS simplification, NAND –NOR Implementation
7.	Quine Mc-Clusky Method
8.	Combinational circuits, analysis procedure
9.	Design Procedure, Binary Adder-Subtractor
10.	Binary Multiplier, Magnitude comparator
11.	Decoders and Encoders
12.	Multiplexers
13.	Demultiplexers
14.	Sequential Circuits, Storage elements: latches Flip-flop
15.	Analysis of Clocked Sequential Circuits
16.	State Reduction and assignments

17.	Design procedure
18.	Shift Registers: SISO,SIPO, PIPO,PISO
19.	Ripple Counter
20.	Synchronous counter
21.	Other Counters
22.	Memory & Programmable logic: RAM,ROM
23.	PLA,PAL
24.	Design at the Register Transfer level: ASMs
25.	Design Example
26.	Design with Multiplexers
27.	Asynchronous Sequential logic: Analysis procedure
28.	Circuit with Latches
29.	Design Procedure
30.	Reduction of State and Flow Table
31.	Race Free State assignments
32.	Hazards