

Name of the faculty: SUSHIL SHARMA (Theory + Practical)

Discipline : Electronics And Communication Engg

Semester : 4th

Subject : Digital Electronics-II (121044)

Lesson Plan Duration : 15 weeks (from Jan 2018 to April 2018)

Work Load per week : Lectures = 3 Pds, Practicals = 3 Pds

Week	Theory		Practical
	Lecture day	Topic	Topic
1 st	1	Logic family classification	Verify the operation of D/A converter
	2	Types of integration	
	3	Characteristics of TTL and CMOS and their comparison	
2 nd	4	open collector and totem pole output circuits	Verify the operation of A/D converter
	5	Interfacing CMOS to TTL and TTL to CMOS	
	6	Tri state devices	
3 rd	7	Performance characteristics of D/A converters	Writing and Reading operation of RAM IC
	8	Binary resistor D/A	
	9	Ladder network D/A	
4 th	10	Performance characteristics of A/D converter	Repeat above experiments for Absent students
	11	Single slope and dual slope A/D converter	
	12	Successive approximation A/D	
5 th	13	Parallel A/D converter	Repeat above experiments for Absent students
	14	Assignment No 1	
	15	1 st Sessional Test	
6 th	16	Memory organisation	Design JK flip flop Counter
	17	classification of semi conductor memories	
	18	ROM, PROM, DROM	
7 th	19	EPROM, EEPROM, RAM	EPROM Use and UV index
	20	Expansion of memory	
	21	CCD and content addressable memory	
8 th	22	Programmable logic devices	EPROM Programming
	23	PROM as PLD	
	24	PLA and PAL	
		FPGA	

Week	Theory		Practical Topic
	Lecture day	Topic	
9 th	25	familiarization with common ICs	Repeat above experiments for absent students
	26	Minimization using Quine McCluskey Method	
	27	Examples practice	
10 th	28	Examples practice	Repeat above experiments for absent students
	29	Assignment No 2	
	30	2 nd Sessional test	
11 th	31	Essential components of sequential circuits	Design full Adder
	32	Synchronous and Asynchronous circuits	
	33	Classification of sequential circuits	
12 th	34	Mealy and Moore Machine	Design full Subtractor
	35	Design of counter using JK flip flop	
	36	Design of counters using RS flip flops	
13 th	37	Basic idea of ALU IC 74181	Logical operation using IC 74181
	38	Applications of ALU	
	39	Arithmetic operations using ALU	
14 th	40	Fuzzy sets and classical sets	Arithmetic operations using IC 74181
	41	Fuzzy relations	
	42	Properties of membership fn Defuzzification Fuzzy control System	
15 th	43	Revision	Repeat above experiments for absent students
	44	Assignment No 3	
	45	3 rd Sessional test	