

LESSON PLAN-2021

SWAMI VIVEKANANDA SCHOOL OF ENGG & TECH, BBSR

Discipline- ETC & CSE	Semester-3rd	Name of teaching faculty-Jayalaxmi Das
SUBJECT- DIGITAL ELECTRONICS	No of days/ per week class allotted-	SEM From date- 01/09/2020 No of weeks-16
Week		Theory Topics
1st	01.10.21	Number System-Binary, Octal, Decimal, Hexadecimal - Conversion from one system to another number system.
	02.10.21	DO
2nd	04.10.21	DO
	05.10.21	Arithmetic Operation-Addition, Subtraction, Multiplication, Division, 1's & 2's complement of Binary numbers& Subtraction using complements method
	07.10.21	DO
	08.10.21	DO
	09.10.21	Digital Code & its application & distinguish between weighted & non-weight Code, Binary codes, excess-3 and Gray codes.
3rd	11.10.21	DO
	12.10.21 to 20.10.21	DUSSERA
	21.10.21	DO
	22.10.21	Logic gates: AND,OR,NOT,NAND,NOR, Exclusive-OR, Exclusive-NOR--Symbol, Function, expression, truth table & timing diagram
	23.10.21	DO
4th	25.10.21	DO
	26.10.21	Universal Gates& its Realisation
	28.10.21	DO
	29.10.21	DO
	30.10.21	Boolean algebra, Boolean expressions, Demorgan's Theorems
1st	01.11.21	Represent Logic Expression: SOP & POS forms
	02.11.21	DO
	05.11.21	Karnaugh map (3 & 4 Variables)&Minimization of logical expressions ,don't care conditions
	06.11.21	DO
2nd	08.11.21	DO
	09.11.21	Half adder, Full adder, Half Subtractor, Full Subtractor, Serial and Parallel Binary 4 bit adder.
	11.11.21	DO
	12.11.21	DO
	13.11.21	Multiplexer (4:1), De- multiplexer (1:4), Decoder, Encoder, Digital comparator (3 Bit)
3rd	15.11.21	DO
	16.11.21	DO
	18.11.21	Seven segment Decoder (Definition, relevance, gate level of circuit Logic circuit, truth table, Applications of above)

	20.11.21	Principle of flip-flops operation, its Types,
4th	22.11.21	SR Flip Flop using NAND,NOR Latch (un clocked)
	23.11.21	C l o c k e d SR,D,JK,T,JK Master Slave flip-flops-Symbol, logic Circuit, truth table and applications
	25.11.21	DO
	26.11.21	DO
	27.11.21	DO
5th	29.11.21	DO
	30.11.21	DO
1st	02.12.21	DO
	03.12.21	DO
	04.12.21	Concept of Racing and how it can be avoided.
2nd	06.12.21	Shift Registers-Serial in Serial -out, Serial- in Parallel-out, Parallel in serial out and Parallel in parallel out
	07.12.21	DO
	09.12.21	DO
	10.12.21	DO
	11.10.21	DO
3rd	13.12.21	Universal shift registers-Applications.
	14.12.21	Types of Counter & applications
	16.12.21	4 Binary counter, Asynchronous ripple counter (UP & DOWN), Decade counter. Synchronous counter, Ring Counter.
	17.12.21	DO
	18.12.21	DO
4th	20.12.21	DO
	21.12.21	Concept of memories-RAM, ROM, static RAM, dynamic RAM,PS RAM
	23.12.21	DO
	24.12.21	Necessity of A/D and D/A converters.
	25.12.21	D/A conversion using weighted resistors methods
5th	27.12.21	D/A conversion using R-2R ladder (Weighted resistors) network.
	28.12.21	A/D conversion using counter method.
	30.12.21	A/D conversion using Successive approximate method
	31.12.21	Various logic families &categories according to the IC fabrication process
1st	03.01.22	DO
	04.01.22	Characteristics of Digital ICs- Propagation Delay, fan-out, fan-in, Power Dissipation ,Noise Margin ,Power Supply requirement &Speed with Reference to logic families.
	06.01.22	DO
	07.01.22	DO
	08.01.22	DO
2nd	10.01.22	3 Features, circuit operation &various applications of TTL(NAND), CMOS (NAND & NOR)
	11.01.22	DO
	13.01.22	DO
	14.01.22	DO