GIET POLYTECHNIC, JAGATPUR, CUTTACK

LESSON PLAN

Discipline: ELECTRICAL	Semester: 5th	Name Of The Teaching Faculty: **SUGANDHA PUSPITA MADHUJHARA**	
Subject: DE&MP (TH- 03)	No. Of Days Per Week Class Allotted: 05 P	Semester From Date: 01.07.2024 To Date: 08.11.2024 No. of weeks: 15	

Week	Class Day	Theory Topic
1st week	1st	➤ **1. BASICS OF DIGITAL ELECTRONICS** ➤
	2nd	➤ Binary, Octal, Hexadecimal number systems and compare with Decimal system.
	3rd	➤ Binary addition, subtraction, Multiplication and Division.
	4th	➤ Subtraction of binary numbers in 2's complement method.
	5th	➤ Use of weighted and Un-weighted codes & write Binary equivalent number
2nd week	1st	➤ Logic Gates: AND, OR, NOT, NAND, NOR and EX-OR gates with truth table.
	2nd	➤ Realize AND, OR, NOT operations using NAND gates
	3rd	➤ Realize AND, OR, NOT operations using NAND gates
	4th	➤ Different postulates and De-Morgan's theorems in Boolean algebra.
	5th	➤ Use Of Boolean Algebra For Simplification Of Logic Expression
3rd week	1st	➤ Use Of Boolean Algebra For Simplification Of Logic Expression
	2nd	➤ Karnaugh Map For 2,3,4 Variable, Simplification Of SOP And POS Logic Expression Using K-Map.
	3rd	➤ Karnaugh Map For 2,3,4 Variable, Simplification Of SOP And POS Logic Expression Using K-Map.
	4th	➤ **2. COMBINATIONAL LOGIC CIRCUITS**
	5th	➤ Half adder circuit and verify its functionality using truth table
4th week	1st	➤ Realize a Half-adder using NAND gates only and NOR gates only.
	2nd	➤ Full adder circuit and explain its operation with truth table.
	3rd	➤ Realize full-adder using two Half-adders and an OR – gate and write truth table
	4th	➤ Operation of 4 X 1 Multiplexers and 1 X 4 demultiplexer
	5th	➤ Operation of 4 X 1 Multiplexers and 1 X 4 demultiplexer
5th week	1st	➤ Working of Binary-Decimal Encoder & 3 X 8 Decoder

	2nd	➤ Pin diagram and description.
	3rd	**INTERNAL TEST**
	4th	➤ Stack, Stack pointer & stack top
	5th	➤ Interrupts
	1st	➤ Instruction set of 8085 example
	2nd	➤ Instruction set of 8085 example
	3rd	➤ Addressing mode
12th week	4th	➤ Fetch Cycle, Machine Cycle, Instruction Cycle, T-State
	5th	➤ Timing Diagram for memory read, memory write, I/O read, I/O write
	1st	➤ Timing Diagram for 8085 instruction
	2nd	➤ Counter and time delay
13th week	3rd	➤ Simple assembly language programming of 8085
	4th	**INTERFACING AND SUPPORT CHIPS**
	5th	➤ Basic Interfacing Concepts, Memory mapping & I/O mapping
	1st	➤ interface Intel 8255
	2nd	➤ Application using 8255: Seven segment LED display, Square wave generator, Traffic ➤ light Controller
14th week	3rd	➤ Application using 8255: Seven segment LED display, Square wave generator, Traffic ➤ light Controller
	4th	➤ Application using 8255: Seven segment LED display, Square wave generator, Trafficlight Controller
	5th	**REVISION**
	1st	➤ Application using 8255: Seven segment LED display, Square wave generator, Trafficlight Controller
	2nd	➤ Constant – K Band elimination filter
15th week	3rd	➤ SOLVE NUMERICAL PROBLEMS
	4th	➤ REVISION
	5th	➤ REVISION

29/06/24
Signature of faculty

21/6/24
Signature of Sr. lecturer
Head of Dept.
Electrical & ETC Engg
G. F.T.I. OLY,.

29/6/24
Signature of Principal