



Lesson Plan-cum-Course Progress Report

Name of the Institute :		CVRP		Rev. Date:		
Department :		ETC				
Semester/Division/Branch :		5th EE				
Subject Name with code :		DIGITAL ELECTRONICS & MICROPROCESSOR				
Total No. of Class (Required) :		60				
Faculty Name :		SUCHISMITA SATPATHY			Date (Lesson Plan):16.08.2022	
Class No.	Brief Description of the Topic/Chapter to be taught	Status of Course Cover (write Yes, if taught)	Sign (Faculty/LA)	Date (Course Covered)	Course Prog. Reviewed by	Remarks
1	List different number system & their relevance : binary, octal, decimal, Hexadecimal					
2	Study the Conversion from one number system to another					
3	Perform Arithmetic operations of binary number systems.					
4	Represent the Concept of complemently numbers : 1's & 2's complement of Binary numbers.					
5	Perform Subtraction of binary numbers using complementary numbers.					
6	Perform multiplication and division of binary numbers.					
7	Define concept of Digital Code & its application.					
8	Distinguish between weighted & non-weight Code.					
9	Study Codes : definition, relevance, types (BCD, Gray, Excess-3 and ASCII code. and applications.					
10	Generation of Error Detection & Correction Code using parity bit.					
11	Learn the Basic Logic gates (NOT, OR, AND, NOR, NAND, EX-OR & EXNOR) – Symbol, function, expression, truth table & example IC nos.					
12	Define Universal Gates with examples & realization of other gates.					
13	Understand Boolean : constants, variables & functions.					
14	Comprehend the Laws of Boolean algebra,State and prove Demorgan's Theorems.					
15	Represent Logic Expression : SOP & POS forms & conversion.					
16	Simplify the Logic Expression/Functions (Maximum of 4 variables) : using Boolean algebra and Karnaugh's map methods.					
17	What is don't care conditions ?,Realisation of simplified logic expression using gates.					
18	Illustrate with examples the above.					
19	Doubt Clearing class for Unit-I.					
20	Doubt Clearing class for Unit-I.					
21	Define a Combinational Circuit and explain with examples.Arithmetic Circuits (Binary).					
22	Truth table & applications of Half-adders, Full-adder & full-Subtractor.					
23	Multiplexure & De-Multiplexure.					
24	Discuss Decoders : definition, relevance, gate level of circuit of simple decoders, Logic circuit of high order encoders, truth table & example IC nos.					
25	Digital Comparator,Seven segment Decoder.					
26	Explain the working of Binary-Decimal Encoder & Decoder.					
27	Doubt Clearing class for Unit-II.					
28	Doubt Clearing class for Unit-II.					
29	Define Flip-Flop.Study RS, Clocked RS, D, T, JK, MS-JK flip-flop with logic Circuit and truth tables.					
30	Define Flip-Flop.Study RS, Clocked RS, D, T, JK, MS-JK flip-flop with logic Circuit and truth tables.					
31	Define Flip-Flop.Study RS, Clocked RS, D, T, JK, MS-JK flip-flop with logic Circuit and truth tables.					
32	Define Flip-Flop.Study RS, Clocked RS, D, T, JK, MS-JK flip-flop with logic Circuit and truth tables.					
33	Concept of Racing and how it can be avoided.					
34	Concept of Racing and how it can be avoided.					
35	Explain the working of various types of shift registers – ISO, SIPO, PISO, PIPO.					
36	Universal shift registers-Applications.					
37	Types of Counter & applications.					
38	Binary counter, Asynchronous ripple counter (UP & DOWN), Decade counter. Synchronous counter, Ring Counter.					
39	Doubt Clearing class for Unit-III.					

Class No.	Brief Description of the Topic/Chapter to be taught	Status of Course Cover (write Yes, if taught)	Sign (Faculty/LA)	Date (Course Covered)	Course Prog. Reviewed by	Remarks
40	Introduction to Microprocessors, Microcomputers.					
41	Architecture of Intel 8085A Microprocessor and description of each block.					
42	Pin diagram and description.					
43	Stack, Stack pointer & stack top					
44	Interrupts					
45	Opcode & Operand					
46	Differentiate between one byte, two byte & three byte instruction with example.					
47	Instruction set of 8085 example					
48	Addressing mode of 8085 Microprocessor.					
49	Fetch Cycle, Machine Cycle, Instruction Cycle, T-State					
50	Timing Diagram for memory read, memory write, I/O read, I/O write					
51	Timing Diagram for 8085 instruction					
52	Counter and time delay, Simple assembly language programming of 8085.					
53	Doubt Clearing class for Unit-IV					
54	Basic Interfacing Concepts, Memory mapping & I/O mapping					
55	Functional block diagram and description of each block of Programmable peripheral interface Intel 8255					
56	Application using 8255: Seven segment LED display, Square wave generator, Traffic light Controller					
57	Doubt Clearing class for Unit-V					
58	Previous Year Semester Question discussion.					
59	Previous Year Semester Question discussion.					
60	Previous Year Semester Question discussion.					

(Sign. of Faculty/LA)

Prepared by (Lesson Plan):

(Sign. of H.O.D/In-charge)

Reviewed by (Lesson Plan):

(Sign. of Principal)

Approved by (Lesson Plan):