

Lesson Plan

Name of Faculty : Sanjay Kumar

Discipline : Electronics and Communication Engg.

Semester : 4th Semester

Subject : Microcontroller and Microprocessor

Lesson Plan Duration : 16 weeks(Feb. to June 2024)

Work Load (lecture/Practical)per week (in hours) : Lectures- 03, Practical- 04

Week	Theory			
	Lecture Day	Topic(including assignment/test)	Working Week	Topics
1	1	Unit 1 Introduction to Microprocessors and Microcontrollers :- Basic Introduction about Microcontroller	1	Understand 8051 development board
	2	comparison of Microcomputer, Microprocessor, and Microcontroller,		
	3	Selection of Microcontroller		
2	4	Selection of Microcontroller	2	Generating Hex File using Keil Compiler
	5	Introduction to 8051- History,		
3	6	Architecture,	3	Programming and interfacing of RELAY and Buzzer
	7	Pin Diagram,		
	8	Crystal Circuit, Reseat Circuit.		
	9	Revision of Unit 1		
4	10	Unit 2 Programming Languages and Instruction Set:- Different Types of Programming languages for 8051	4	Viva- Voce
	11	Advantages of Programming in C, Addressing Modes		
	12	1st Sessional Test		
5	13	Instruction Set of 8051	5	Programming to interface switches and LEDs
	14	Types of Instructions		
6	15	Types of Instructions	6	Programming and interfacing of LCD
	16	Data types and time delay in 8051		
7	17	I/O programming in 8051 C	6	
	18	Hex file generation using Keil Compiler		
	19	Unit 3 8051 Timers :- Timers and Registers of 8051		
	20	Timer / Counter logic and modes		
	21	Programming of 8051 timers		

8	22	Programming Timer 1 using C		
	23	Programming Timer 1 using C		
	24	Revision of Unit 3		
9	25	2nd Sessional Test	7	Programming for A/D converter, result on LCD.
	26	Unit 4 Serial Port Communication :- Serial Port of 8051 –Basics of serial communication		
	27	Basics of serial communication		
10	28	Serial Communication-SCON	8	Viva- Voce
	29	Assignment/Revision		
11	30	SBUF	9	Programming for D/A converter, result on LCD
	31	Modes of serial communication		
	32	Modes of serial communication		
12	33	8051 connection to RS232	10	Interfacing Stepper Motor with 8051.
	34	8051 connection to RS232		
	35	Interrupts		
13	36	Interrupts	11	Interfacing different sensors with 8051.
	37	Assignment/Revision		
	38	3rd Sessional Test		
14	39	Unit 5 Real World Interfacing with 8051 :- I/O Interfacing	12	Viva- Voce
	40	LED Interfacing		
	41	LCD Interfacing		
15	42	Keyboard Interfacing		
	43	Interfacing ADC		
	44	Interfacing DAC		
16	45	Sensor Interfacing		
	46	Signal Conditioning		
	47	Assignment/Revision		
	48			