Electronics MRAK

Department Lesson plan

Name of Faculty	**SUCHET KUMARI**
Discipline	**Electronics MRAK**
Semester	**Fourth Sem (4th sem)**
Subject	**Microprocessor & Micro-controller**
Lesson Plan Duration	**From Feb 2024**
Work load [Theory + Practical] Per Week	**[03+04]**

Week	Day	Theory Topic/ Assignment/ Test	No.	Practical
1st	1	Unit1: Introduction to Microprocessors and Microcontrollers	1	Understand 8051 development board
	2	Basic Introduction and comparison of Microcomputer,		
	3	Microprocessor, and Microcontroller, Selection of Microcontroller		
2nd	1	Introduction to 8051- History, Architecture,	2	Generating Hex File using Keil Compiler
	2	Pin Diagram,		
	3	Crystal Circuit, Reseat Circuit.		
3rd	1	UNIT:2 Different Types of Programming languages for 8051, Advantages of Programming in C	3	Programming and interfacing of RELAY and Buzzer
	2	Addressing Modes		
	3	Addressing Modes		
4th	1	Instruction Set of 8051	4	Programming and interfacing of RELAY and Buzzer
	2	Instruction Set of 8051		
	3	Revision		
5th	1	Types of Instructions.	5	Programming to interface switches and LEDs
	2	Types of Instructions		
	3	Data types and time delay in 8051,		
6th	1	I/O programming in 8051 C,	6	Programming to interface switches and LEDs
	2	Hex file generation using Keil Compiler		
	3	UNIT:3 Timers and Registers of 8051		
7th	1	Timer / Counter logic and modes	7	Programming and interfacing of LCD
	2	Programming of 8051 timers,		
	3	Programming Timer 1 using C		

8th	**1**	**UNIT:4 Serial Port of 8051**	**8**	**Programming and interfacing of LCD**
	2	**–Basics of serial communication,**		
	3	**Serial Communication-SCON, SBUF; Modes of serial communication**		
9th	**1**	**Revision**	**9**	**File Checking**
	2	**Revision**		
	3	**8051 connection to RS232**		
10th	**1**	**Interrupts**	**10**	**Programming for A/D converter, result on LCD.**
	2	**Class test/Assignment**		
	3	**UNIT:5 I/O Interfacing – LED,**		
11th	**1**	**I/O Interfacing – LCD,**	**11**	**Programming for D/A converter, result on LCD**
	2	**I/O Interfacing – Keyboard**		
	3	**Interfacing ADC**		
12th	**1**	**Interfacing DAC**	**12**	**Interfacing Stepper Motor with 8051.**
	2	**Revision**		
	3	**Revision**		
13th	**1**	**Class test/Assignment**	**13**	**Interfacing different sensors with 8051.**
	2	**Sensor Interfacing**		
	3	**Signal Conditioning**		
14th	**1**	**Revision**	**14**	**File Checking**
	2	**Revision**		
	3	**Revision**		