Department of Electrical & Electronics Engineering

Lesson Plan & Work-done Diary for AY: 2024-2025, EVEN Semester

Course with Code: MICRCONTROLLERS / BEE403				Faculty: Kavyashree S		Semester & Section: IV	
Class No.	**Date planned (DD/MM)**	**Topics to be covered**	**TLP Planned**	**Date of Conduction (DD/MM)**	**Topics Covered**	**TLP Executed**	**Remarks if any deviation**
MODULE-1							
1		8051 Microcontroller Basics Inside the Computer, Microcontrollers and Embedded Processors	ICT				
2		Block Diagram of 8051	Chalk & Talk ICT				
3		PSW and Flag Bits, 8051 Register Banks and Stack	Chalk & Talk				
4		Internal Memory Organization of 8051	Chalk & Talk ICT				
5		IO Port Usage in 8051	Chalk & Talk ICT				
6		Types of Special Function Registers and their uses in 8051	Chalk & Talk				
7		Pins of 8051. Memory Address Decoding, 8031/51 Interfacing with External ROM And RAM	Chalk & Talk				
8		8031/51 Interfacing with External ROM And RAM	Chalk & Talk				
9		8051 Addressing Modes	Chalk & Talk				
10		VTU Question Paper Discussion	Chalk & Talk				

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MODULE 2							
11		**Module 2**: Assembly programming and Instructions of 8051: Introduction to 8051 ALP	Chalk & Talk ICT				
12		Assembling and running an 8051 program	Chalk & Talk				
13		Data types and assembler directives	Chalk & Talk				
14		Assembly level programs	Chalk & Talk				
15		Arithmetic, Logic instructions and programs	Chalk & Talk				
16		Jump instructions, Loop & call instructions	Chalk & Talk				
17		Programs on jump, loop call, arithmetic	Chalk & Talk ICT				
18		IO port programming	Chalk & Talk				
19		Programs on port programming	Chalk & Talk				
20		Programs on port programming	Chalk & Talk				

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MODULE 3							
21		**Module-3** 8051 Programming in C Data types and time delay in 8051 C	Chalk & Talk ICT				
22		IO programming in 8051 C	Chalk & Talk				
23		Logic operation in 8051 C	Chalk & Talk				
24		Programs	Chalk & Talk				
25		Data conversion program in 8051 C	Chalk & Talk				
26		Accessing code ROM space in 8051 C, data serialization using 8051 C	Chalk & Talk ICT				
27		8051 timer programming in assembly & C	Chalk & Talk				
28		Programing 8051 timer's counter programing	Chalk & Talk ICT				
29		Programing timers in 8051 C	Chalk & Talk				
30		Programing timers in 8051 C	Chalk & Talk				

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MODULE 4							
31		**MODULE 4**: Serial port programming in assembly & C : Basics of serial communication	Chalk & Talk ICT				
32		8051 Connection to RS-242	Chalk & Talk ICT				
33		8051 Serial port programming in Assembly- Programs on Data Serialization	Chalk & Talk				
34		8051 Serial port programming in assembly	Chalk & Talk				
35		Serial port programming in 8051 C	Chalk & Talk				
36		8051 Interrupt programing assembly & C 8051 interrupts	Chalk & Talk				
37		Programming timer, external Hardware	Chalk & Talk				
38		Serial Communication Interrupts	Chalk & Talk ICT				
39		Interrupt priority in 8051/52 Interrupt programming in C	Chalk & Talk ICT				
40		VTU QP Discussion	Chalk & Talk				

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MODULE 5							
41		**MODULE-5**: Interfacing LCD interfacing Keyboard interfacing	ICT				
42		ADC, DAC and sensor interfacing. ADC0808 interfacing to 8051	Chalk & Talk ICT				
43		Serial ADC Max1112 ADC interfacing to 8051 DAC interfacing	Chalk & Talk ICT				
44		Sensor interfacing and signal conditioning Motor Control: Relay PWM DC	Chalk & Talk ICT				
45		Stepper Motor: relay and opt isolator DC motor interfacing and PWM	Chalk & Talk ICT				
46		Programming of Different interfacing: ADC, DAC, Stepper and DC Motor, LCD, PWM	Chalk & Talk				
47		Programming of Different interfacing: ADC, DAC, Stepper and DC Motor, LCD, PWM	Chalk & Talk				
48		8051 interfacing with 8255: programming the 8255, interfacing, C programming for 8255	Chalk & Talk ICT				
49		SRS conduction	ICT				
50		Summary of all modules	Chalk & Talk				

	Activity	Planned	Actual	Remarks
1	Theory Classes	50		
2	Assignments/Quizzes/ Self study	2: Write Up and (Mock Test) 1: Group Activity 3: Quiz/SRS		
3	Tutorials/ Extra classes	-		
4	Internal Assessments	3		
5	ICT based Teaching (40% of usage in Curriculum)	20/50 Classes= 40% ICT		
	Planning		**Execution**	
Faculty Signature:			**Faculty Signature:**	
HoD Signature:			**HoD Signature:**	