

# Lesson Plan

Name of the faculty: Dr. Shikha Sukhija

Discipline: ECE

Semester: 6<sup>TH</sup>

Subject: Embedded systems

Lesson Plan Duration: 15 weeks (from February 2024 to June 2024)

Week	Theory		Practical	
	Lecture Day	Topic (including assignment / test)	Practical Day	Topic
1 <sup>st</sup>	1	Introduction of Embedded Systems	-	-
	2	History of Embedded Systems	-	-
	3	Architecture of Embedded systems	-	-
2 <sup>nd</sup>	4	Functional Structure of Embedded System	-	-
	5	Real Time Operating System	-	-
	6	Factors affecting Embedded Systems	-	-
3 <sup>rd</sup>	7	Applications of embedded Systems	-	-
	8	Characteristics and features of Embedded Systems	-	-
	9	Reliability of Embedded Systems	-	-
4 <sup>th</sup>	10	WRITTEN TEST	-	-
	11	Embedded systems versus general purpose systems	-	-
	12	Introduction of microcontroller	-	-
5 <sup>th</sup>	13	Selection Criteria of Microcontroller	-	-
	14	Introduction of PIC Microcontroller	-	-

	15	Block diagram of PIC Microcontroller		
6 <sup>th</sup>	16	Function of each block of PIC Microcontroller	-	-
	17	Introduction to AVR Microcontroller, block diagram	-	-
	18	Function of each block of AVR Microcontroller		
7 <sup>th</sup>	19	Introduction to programming concepts of Microcontrollers	-	-
	20	Introduction of software in Microcontroller	-	-
	21	How to transfer C or ASM code in microcontrollers		
8 <sup>th</sup>	22	Introduction of 8051 Microcontroller	-	-
	23	Comparison between avr,pic and 8051 Microcontroller	-	-
	24	Steps involved in development of project		
9 <sup>th</sup>	25	Interfacing of LED	-	-
	26	Seven segment display	-	-
	27	Interfacing of LED, seven display and buzzers.		
10 <sup>th</sup>	28	Interfacing of relay and sensors	-	-
	29	Revision of Introduction of Embedded Systems	-	-
	30	Revision of History of Embedded Systems		
11 <sup>th</sup>	31	Revision of Architecture of Embedded systems	-	-
	32	Revision of Real Time Operating System	-	-
	33	Revision of Block diagram and architecture of RTOS		

12 <sup>th</sup>	34	Revision of Factors affecting Embedded Systems and applications of ES	-	
	35	Revision of Characteristics and features of Embedded Systems	-	-
	36	Revision of Reliability of Embedded Systems		
13 <sup>th</sup>	37	Revision of PIC Microcontroller	-	-
	38	Revision of AVR Microcontroller	-	-
	39	Revision of programming concepts of Microcontrollers		
14 <sup>th</sup>	40	Revision of software used in Microcontroller	-	-
	41	Revision of How to transfer C or ASM code in microcontrollers	-	-
	42	Revision of Comparison between avr,pic and 8051 Microcontroller		-
15 <sup>th</sup>	43	Revision of Interfacing of LED	-	-
	44	Revision of Interfacing of seven segment display	-	-
	45	Revision of Interfacing of relay and sensors		