

## Department of Electrical & Electronics Engineering

### Lesson Plan & Work-done Diary for AY:2024-25, Even Semester

Course with Code: Arduino & Raspberry Pi based Projects				Faculty: Mr.Shreeshayana R			Semester & Section: IV	
Class No.	Date planned (DD/MM)	Topics to be covered	TLP Planned	Class No.	Date of Conduction (DD/MM)	Topics Covered	TLP Executed	Remarks if any deviation
1	Session-1	Orientation Session	ICT	1				
2	Session-2	i) To interface LED/Buzzer with Arduino/Raspberry Pi and write a program to 'turn ON' LED for 1 sec after every 2 seconds. ii) To interface Push button/Digital sensor (IR/LDR) with Arduino/Raspberry Pi and write a program to 'turn ON' LED when push button is pressed or at sensor detection.	Chalk and Talk + ICT	2				
3	Session-3	i) To interface DHT11 sensor with Arduino/Raspberry Pi and write a program to print temperature and humidity readings. ii) To interface OLED with Arduino/Raspberry Pi and write a program to print temperature and humidity readings on it.	Chalk and Talk + ICT	3				
4	Session-4	To interface Bluetooth with Arduino/Raspberry Pi and write a program to send sensor data to Smartphone using Bluetooth	Chalk and Talk + ICT	4				

5	Session-5	To interface Bluetooth with Arduino/Raspberry Pi and write a program to turn LED ON/OFF when '1'/'0' is received from Smartphone using Bluetooth.	Chalk and Talk + ICT	5				
6	Session-6	IA-1	-	6				
7	Session-7	To interface motor using relay with Arduino/Raspberry Pi and write a program to 'turn ON' motor when push button is pressed	Chalk and Talk + ICT	7				
8	Session-8	Write a program on Arduino/Raspberry Pi to upload temperature and humidity data to thing speak cloud	Chalk and Talk + ICT	8				
9	Session-9	Write a program on Arduino/Raspberry Pi to retrieve temperature data to MQTT broker	Chalk and Talk + ICT	9				
10	Session-10	Write a program on Arduino/Raspberry Pi to publish temperature data to MQTT broker	Chalk and Talk + ICT	10				
11	Session-11	Write a program to create UDP server on Arduino/Raspberry Pi and respond with humidity data to UDP client when requested	Chalk and Talk + ICT	11				
12	Session-12	Write a program to create TCP server on Arduino/Raspberry Pi and respond with humidity data to TCP client when requested.	Chalk and Talk + ICT	12				
13	Session-13	Write a program on Arduino/Raspberry Pi to subscribe to MQTT broker for temperature data and print it.	Chalk and Talk + ICT	13				
14	Session-14	IA-II	-	14				

	<b>Activity</b>	<b>Planned</b>	<b>Actual</b>	<b>Remarks</b>
<b>1</b>	Theory Classes	14		
<b>2</b>	Assignments/Quizzes/ Self study	-		
<b>3</b>	Tutorials/ Extra classes	-		
<b>4</b>	Internal Assessments	2		
<b>5</b>	ICT based Teaching (% of usage in Curriculum)	11/14= 78.57%		
<b>Planning</b>			<b>Execution</b>	
<b>Faculty Signature:</b>			<b>Faculty Signature:</b>	
<b>HoD Signature:</b>			<b>HoD Signature:</b>	