

LESSION PLAN – IOT&AI

NAME OF THE FACULTY : POOJA

DISCIPLINE : COMUTER ENGINEERING

SEMESTER : 1St YEAR

SUBJECT : IOT & AI

LESSON PLAN DURATION : 32 weeks (from Oct 2021 to July 2022)

WORK LOAD (LECTURE/PRACTICAL) PER WEEK (IN HOURS):- LECTURE-00, PRACTICAL-04

WEEK	PRACTICAL SCHEDULE	
	PRACTICAL DAY	TOPIC
1 st	1 st Group-1	Introduction to internet of things (IOT)
	2 nd Group-2	Introduction to internet of things (IOT)
2 nd	3 rd Group-1	Applications of IOT
	4 th Group-2	Applications of IOT
3 rd	5 th Group-1	Architecture of IOT
	6 th Group-2	Architecture of IOT
4 th	7 th Group-1	IOT Protocols
	8 th Group-2	IOT Protocols
5 th	9 th Group-1	Characteristics of IOT
	10 th Group-2	Characteristics of IOT
6 th	11 th Group-1	Physical Design/Logical Design of IOT
	12 th Group-2	Physical Design/Logical Design of IOT
7 th	13 th Group-1	Physical Design/Logical Design of IOT
	14 th Group-2	Physical Design/Logical Design of IOT

8 th	15 th Group-1	Functional blocks of IOT
	15 th Group-2	Functional blocks of IOT
9 th	17 th Group-1	Communication Models
	18 th Group-2	Communication Models
10 th	19 th Group-1	Basics of C language using Arduino IDE Understanding basics of Arduino IDE.
	20 th Group-2	Basics of C language using Arduino IDE Understanding basics of Arduino IDE.
11 th	21 th Group-1	Variables & data types of C language
	22 th Group-2	Variables & data types of C language
12 th	23 th Group-1	Various Loops of C language
	24 th Group-2	Various Loops of C language
13 th	25 th Group-1	Various Loops of C language
	26 th Group-2	Various Loops of C language
14 th	27 th Group-1	Various Control Statements of C language
	28 th Group-2	Various Control Statements of C language
15 th	29 th Group-1	Various Control Statements of C language
	30 th Group-2	Various Control Statements of C language
16 th	31 th Group-1	Function
	32 th Group-2	Function
17 th	33 th Group-1	Practical using Arduino-interfacing sensors (i) Interfacing light emitting diode (LED)-blinking LED.

17 th	34 th Group-2	Practical using Arduino-interfacing sensors (i) Interfacing light emitting diode (LED)-blinking LED.
18 th	35 th Group-1	(ii) Interfacing button and LED-LED blinking when button is pressed.
	36 th Group-2	(ii) Interfacing button and LED-LED blinking when button is pressed.
19 th	37 th Group-1	(iii)Interfacing light dependent resistor (LDR) and LED, displaying automatic night lamp.
	38 th Group-2	(iii)Interfacing light dependent resistor (LDR) and LED, displaying automatic night lamp.
20 th	39 th Group-1	(iv) Interfacing temperature sensor (LM35) and/or humidity sensor (e.g. DHT11)
	40 th Group-2	(iv) Interfacing temperature sensor (LM35) and/or humidity sensor (e.g. DHT11)
21 th	41 th Group-1	(v) Interfacing liquid crystal display (LCD) – display data generated by sensor on LCD
	42 th Group-2	(v) Interfacing liquid crystal display (LCD) – display data generated by sensor on LCD
22 th	43 th Group-1	(vi) Interfacing air quality sensor-pollution (e.g. MQ135) – display data on LCD, switch on LED when date sensed is higher than specified value.
	44 th Group-2	(vi) Interfacing air quality sensor-pollution (e.g. MQ135) – display data on LCD, switch on LED when date sensed is higher than specified value.
23 th	45 th Group-1	vii) Interfacing Bluetooth module (e.g. HC05)- receiving data from mobile phone arduino and display on LCD.
	46 th Group-2	vii) Interfacing Bluetooth module (e.g. HC05)- receiving data from mobile phone arduino and display on LCD.
24 th	47 th Group-1	(viii) Interfacing relay module to demonstrate Bluetooth based home automation application. (using Bluetooth and relay).
	48 th Group-2	(viii) Interfacing relay module to demonstrate Bluetooth based home automation application. (using Bluetooth and relay).
25 th	49 th Group-1	REVISION SCHEDULE
	50 th Group-2	REVISION SCHEDULE
26 th	51 th Group-1	REVISION SCHEDULE
	52 th Group-2	REVISION SCHEDULE
27 th	53 th Group-1	Introduction to Artificial Intelligence (AI) ,Machine Learning (ML), Deep Learning (DL) Role of AI in IOT and its applications.

27 th	54 th Group-2	Introduction to Artificial Intelligence (AI) ,Machine Learning (ML), Deep Learning (DL) Role of AI in IOT and its applications.
28 th	55 th Group-1	Managing and analyzing data generated by IOT devices-Big Data.
	56 th Group-2	Managing and Analyzing data generated by IOT devices-Big Data.
29 th	57 th Group-1	Machine Learning (ML) Technique – Classification.
	58 th Group-2	Machine learning (ML) Techniques -- Classification.
30 th	59 th Group-1	Machine Learning (ML) Technique -- Linear Regression.
	60 th Group-2	Machine Learning (ML) Technique -- Linear Regression.
31 th	61 th Group-1	Numerical based on Machine Learning (ML) Techniques.
	62 th Group-2	Numerical based on Machine Learning (ML) Techniques.
32 th	63 th Group-1	Understanding Excel for analysing data.
	64 th Group-2	Understanding Excel for analysing data.