

LESSONPLAN

Department:CSE		
Semester:5 th ,		Name of Faculty: ANINDYA MOHANTY
Subject: IOT(INTERNET OF THINGS)	No. of days/ week Class allotted: 4	Effective From Date:22.12.2025
		No. of Week-15
		Topic to be Covered:
Week	Class Day	Theory
1 st	1st	UNIT 1: Introduction to Internet of Things
	2nd	Introduction, Characteristics of IoT, Applications of IoT
	3rd	IoT Categories, IoT Enablers and connectivity layers
	4th	Baseline Technologies, Sensor, Actuator
2 nd	1st	IoT components and implementation, Challenges for IoT
	2nd	1. Doubt Clearing class 2. Quiz test 3. Assignment
	3rd	UNIT 2: IOT Networking
	4th	Terminologies Gateway Prefix allotment
3 rd	1st	Impact of mobility on Addressing
	2nd	Multihoming, Deviation from regular Web
	3rd	IoT identification and Data protocols
	4th	1. Doubt Clearing class 2. Quiz test 3. Assignment
4 th	1st	UNIT 3: Connectivity Technologies
	2nd	Introduction, IEEE 802.15
	3rd	ZigBee, 6LoWPAN
	4th	RFID, HART and wireless HART
5 th	1st	NFC, Bluetooth, Z wave, ISA100.11.A
	2nd	1. Doubt Clearing class 2. Quiz test 3. Assignment
	3rd	UNIT 4: Wireless Sensor Networks
	4 th	Introduction, Components of a sensor node, Modes of Detection, Challenges in WSN, Sensor Web
6 th	1st	Cooperation and Behaviour of Nodes in WSN, Self Management of WSN, Social sensing WSN, Application of WSN
	2nd	Wireless Multimedia sensor network, Wireless Nanosensor Networks
	3rd	Underwater acoustic sensor networks, WSN Coverage Stationary WSN, Mobile WSN
	4th	1 Doubt Clearing class 2. Quiz test 3. Assignment
7 th	1st	UNIT 5: M2M Communication
	2nd	M2M communication
	3rd	M2M Ecosystem
	4th	M2M service Platform

8 th	1st	M2M service Platform
	2nd	1 Doubt Clearing class 2. Quiz test 3. Assignment
	3rd	UNIT 6:Programming with Arduino
	4th	Features of Arduino ,Components of Arduino Board
9 th	1st	Arduino IDE
	2nd	Case Studies
	3rd	1 Doubt Clearing class 2. Quiz test 3. Assignment
	4th	UNIT 7:Programming with Raspberry Pi
10 th	1st	Architecture and Pin Configuration
	2nd	Case studies
	3rd	Implementation of IoT with Raspberry Pi
	4th	1. Doubt Clearing class 2. Quiz test 3. Assignment
11 th	1st	UNIT 8:Software defined Networking
	2nd	Limitation of current network
	3rd	Origin of SDN,SDN Architecture,Rule Placement, Open flow Protocol
	4th	Controller placement,Security in SDN
12 th	1st	Integrating SDN in IoT
	2nd	1. Doubt Clearing class 2. Quiz test 3. Assignment
	3rd	UNIT 9:Smart Homes
	4th	Origin and example of Smart Home Technologies,Smart Home Implementation
13 th	1st	Home Area Networks(HAN),
	2nd	Smart Home benefits and issues
	3rd	1. Doubt Clearing class 2. Quiz test 3. Assignment
	4th	UNIT 10:Smart Cities
14 th	1st	Characteristics of Smart Cities,Smart city Frameworks,Challenges in Smart cities

	2nd	Data Fusion
	3rd	Smart Parking ,Energy Management in Smart cities
	4th	1. Doubt Clearing class 2. Quiz test 3. Assignment
15 th	1st	UNIT 11:Industrial IoT
	2nd	IIoT requirements ,Applications of IoT
	3rd	Benefits of IoT,Challenges of IIoT
	4th	1. Doubt Clearing class 2. Quiz test 3. Assignment

Anish K. Mohanty
Signature of Faculty

Rasmita Patra
22/12/25
HOD
Dept. of CSE
Govt. Polytechnic,
Kandhamal

