LESSONPLAN

Department: CSE	Semester:5th	Name of Faculty: Miss. RASMITA PATRA
Subject: IOT (TH-1)	No.ofdays/ week Class allotted: 3	Effective From Date: 01.07.2026
		Topic to be Covered:
Week	ClassDay	Theory **UNIT 1: Introduction to Internet of Things (IoT)**
1st	1st	Overview of IoT - Definition and significance of IoT, Historical evolution and future prospects, Applications across various industries
	2nd	IoT Architecture and Components, Basic architecture - sensors, actuators, connectivity, and data processing
	3rd	IoT Architecture and Components, Basic architecture - sensors, actuators, connectivity, and data processing
2nd	1st	Hardware components: microcontrollers (e.g., Arduino, Raspberry Pi)
	2nd	Software components: operating systems and middleware
	3rd	Software components: operating systems and middleware
3rd	1st	**1. Doubt Clearing class** **2. Quiz test** **3. Assignment**
	2nd	**UNIT 2: Sensors, Actuators, and Data Acquisition**
	3rd	Sensors and Actuators
4th	1st	Types of sensors: temperature, humidity, motion, etc.,
	2nd	Actuators: motors, relays, and control mechanisms
	3rd	Interfacing sensors and actuators with microcontrollers
5th	1st	Data Acquisition and Processing - Analog and digital data acquisition methods
	2nd	Signal conditioning and filtering techniques
	3rd	Introduction to data processing and storage
6th	1st	Introduction to data processing and storage
	2nd	**1. Doubt Clearing class** **2. Quiz test** **3. Assignment**
	3rd	**UNIT 3: Communication Protocols and Networking**
7th	1st	IoT Communication Protocols
	2nd	Overview of protocols: MQTT, CoAP, HTTP, etc
	3rd	Wireless communication: Wi-Fi, Bluetooth, Zigbee, Lora
8th	1st	WAN., Wired communication: Ethernet, Serial communication
	2nd	Networking Fundamentals - IP addressing and subnetting
	3rd	Network topologies and architectures
9th	1st	Introduction to IPv6 and its relevance to IoT.
	2nd	Introduction to IPv6 and its relevance to IoT
	3rd	**1. Doubt Clearing class** **2. Quiz test** **3. Assignment**
10th	1st	**UNIT 4: IoT Platforms and Cloud Integration**
	2nd	IoT Platforms, Overview of popular IoT platforms (e.g., AWS IoT, Google Cloud IoT
	3rd	Data analytics and visualization tools

11th	1st	Edge computing concepts
	2nd	Cloud Computing for IoT
	3rd	Introduction to cloud services: IaaS, PaaS, SaaS
12th	1st	Integration of IoT devices with cloud platforms
	2nd	Data storage, processing, and management in cloud
	3rd	**1. Doubt Clearing class** **2. Quiz test** **3. Assignment**
13th	1st	**UNIT 5: IoT Security and Privacy**
	2nd	Security Challenges in IoT
	3rd	Common vulnerabilities and threats
14th	1st	Authentication and authorization mechanisms
	2nd	Data encryption and secure communication
	3rd	Privacy Considerations - Data privacy laws and regulations
15th	1st	User consent and data ownership
	2nd	Best Practices for ensuring privacy in IoT applications
	3rd	**1. Doubt Clearing class** **2. Quiz test** **3. Assignment**

Rasmita Patra
Signature of Faculty

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