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Lesson Plan

	Discipline: ETC	Semester-6th Summer-2025	Name of the Teaching Faculty:- Asutosh Sahoo ETC Engg.
Sl. No.	Subject-Th.4 (Internet Of Things(IOT)-2025 SUMMER	No. Of Days/Week class allotted:04	Semester From date: 04.02.2025 To date: 17.05.2025 (No of weeks: 15)
	Weeks/Months	Class Day	Topic
1	1st week of February	1st	Introduction to IoT 1.1 What is IoT..
		2nd	1.2 Architectural Overviewties,
		3rd	1.3 Design principles and needed capabilities
		4th	1.4 IoT Applications, Sensing, Actuation,
2	2nd week of February	1st	1.5 Basics of Networking, M2M and IoT Technology I. 1.6 Fundamentals- Devices and gateways
		2nd	1.7 Data management, Business processes in IoT,
		3rd	1.8 Everything as a Service(XaaS),
		4th	1.9 Role of Cloud in IoT, Security aspects in IoT.
3	3rd week of February	1st	1.9 Role of Cloud in IoT, Security aspects in IoT. 2.1 Hardware Components- Computing (Arduino, Raspberry Pi),
		2nd	2.1 Hardware Components- Computing (Arduino, Raspberry Pi),
		3rd	2.1 Hardware Components- Computing (Arduino, Raspberry Pi),
		4th	2.2 Communication, Sensing, Actuation, I/O interfaces.. 2.2 Communication, Sensing, Actuation, I/O interfaces.
4	4th week of February	1st	2.2 Communication, Sensing, Actuation, I/O interfaces.
		2nd	for Communication
		3rd	2.3 Software Components- Programming API's (using Python/Node.js/Arduino) for Communication
		4th	2.4 Protocols-MQTT, ZigBee, Bluetooth, CoAP, UDP, TCP.
5	1st week of March	1st	3. IoT Application Development .
		2nd	3.1 Solution framework for IoT applications
		3rd	3.2 Implementation of Device integration,
		4th	3.2 Implementation of Device integration,
6	2nd week of March	1st	3.3 Data acquisition and integration,
		2nd	3.4 Device data storage- Unstructured data storage on cloud/local server,
		3rd	3.4 Device data storage- Unstructured data storage on cloud/local server,
		4th	3.5 Authentication, authorization of devices.
7	3rd week of March	1st	4. Smart Technology 4.1 Understanding the IoT Big Picture
		2nd	4.1 Understanding the IoT Big Picture
		3rd	4.2 Building the Internet of Things
		4th	4.2 Building the Internet of Things

8	4th week of March	1st	4.3 Understanding Smart Devices, Building Blocks
		2nd	4.4 Understanding Network Connections
		3rd	4.4 Understanding Network Connections
		4th	4.5 Understanding IP Addresses.
9	1st week of April	1st	4.5 Understanding IP Addresses.
		2nd	4.6 Understanding cellular Network & Mesh Network
		3rd	5. Smart TVs: Viewing in a Connected World
		4th	5.1 What is Smart TV & its use
10	2nd week of April	1st	5.1 What is Smart TV & its use
		2nd	5.2 What is inside Smart TV
		3rd	5.2 What is inside Smart TV
		4th	5.2 What is inside Smart TV
11	3rd week of April	1st	5.3 What a Smart TV does
		2nd	5.4 Smart TV Operating Systems
		3rd	5.4 Smart TV Operating Systems
		4th	5.5 What is Smart TV Set-Top Devices
12	4th week of April	1st	5.4 Smart TV Operating Systems
		2nd	5.5 What is Smart TV Set-Top Devices
		3rd	5.5 What is Smart TV Set-Top Devices
		4th	5.6 Integrating Smart TV in to IOT
13	1st week of May	1st	5.6 Integrating Smart TV in to IOT
		2nd	5.6 Integrating Smart TV in to IOT
		3rd	6. IoT Case Studies
		4th	6. IoT Case Studies
14	2st week of May	1st	a. Smart Home
		2nd	b. Smart car
		3th	c. Smart Cities
		4th	d. Smart Drones
15	3rd week of May	1st	a. Smart car
		2nd	b. Smart car
		3th	c. Smart Cities
		4th	d. Smart Drones

Asutosh Sahoo

Signature of the Teacher