

Lesson Plan

Discipline: ETC		Semester- 6th Summer- 2024	Name of the Teaching Faculty:- Sri RABINDRA KUMAR SATAPATHY (GUEST FACULTY) & B.B.NAIK (TS) . ETC Engg.
Sl. No.	Subject-Th.4 (Internet Of Things(IOT)-2024 SUMMER	No. Of Days/Week class alloted:04	Semester From date: 16.01.2024 To date: 26.04.2024 (No of weeks: 15)
	Weeks/Months	Class Day	Topic
1	3rd week 16 jan To 20 jan	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	4th week 22 jan To 27 jan	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	5th week 29 jan To 1st week 03 feb	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..
4	2nd week 05 feb To 10 feb	1st	2.2 Communication, Sensing, Actuation, I/O interfaces.
		2nd	2.3 Software Components- Programming API's (using Python/Node.js/Arduino) 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	3rd week 12 feb To 17 feb	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	4th week 19 feb To 24 feb	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	5th week 26 feb To 1st week of 02 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	2nd week 04 march To 09 march	1st	4.3 Understanding Smart Devices, Building Blocks
		2nd	4.4 Understanding Network Conections
		3rd	4.4 Understanding Network Conections
		4th	4.5 Understanding IP Adressesle.

9	3rd week 11 march To 16 march	1st	4.5 Understanding IP Adressesle.
		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	4th week 18 march To 23 march	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	5th week 25 march To 30 march	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-TopDevices
12	1st week 01 april To 06 april	1st	5.4 Smart TV Operating Systems
		2nd	5.5 What is Smart TV Set-TopDevices
		3rd	5.5 What is Smart TV Set-TopDevices
		4th	5.6 Intergrating Smart TV in to IOT
13	1st week 08 april To 13 april	1st	5.6 Intergrating Smart TV in to IOT
		2nd	5.6 Intergrating Smart TV in to IOT
		3rd	6. IoT Case Studies
		4th	6. IoT Case Studies
14	1st week 15 april To 20 april	1st	a. Smart Home
		2nd	b. Smart car
		3th	c. Smart Citiess
		4th	d. Smart Drones
15	1st week 22 april To 26 april	1st	a. Smart car
		2nd	b. Smart car
		3th	c. Smart Citiess
		4th	d. Smart Drones

Signature of the Faculty