



C V RAMAN POLYTECHNIC, BHUBANESWAR

LESSON PLAN

Session (2025-2026)

Discipline: Electronics and Telecommunication Engineering	Semester: 6th , Summer/2026	Name of the Faculty: Sabyasachi Patra Asst. Prof. Email ID: sabyasachi.patra@cvrp.edu.in
Subject: Internet of Things TH.4(ii)	No. of Days/week: 04	Start Date: 22/12/2025 End Date: 18/04/2026

Week	Class Day	Theory Topic
1st	1st	Unit 1: What is IoT, Architectural Overview
	2 nd	Design principles and needed capabilities, IoT Applications, Sensing, Actuation
	3 rd	Basics of Networking, M2M and IoT Technology
	4th	Fundamentals- Devices and gateways
2 nd	5 th	Data management
	6 th	Business processes in IoT, Everything as a Service(XaaS)
	7 th	Role of Cloud in IoT, Security aspects in IoT
	8 th	Revision, Assignment1
3 rd	9 th	Unit 2: Hardware Components- Computing (Arduino)
	10 th	Hardware Components- Computing (Raspberry Pi)
	11 th	Communication, Sensing, Actuation, I/O interfaces
	12 th	Software Components- Programming API's (using Python)
4 th	13 th	Software Components- Programming API's (using Python)
	14 th	Software Components- Programming API's (using Arduino)
	15 th	Software Components- Programming API's (using Arduino)
	16th	Practice programming & Assignment

5 th	17 th	Protocols-MQTT, ZigBee, Bluetooth, CoAP, UDP, TCP
	18 th	Protocols-MQTT, ZigBee, Bluetooth, CoAP, UDP, TCP
	19 th	Quiz test1
	20 th	Unit 3: Solution framework for IoT applications
6 th	21st	Implementation of Device integration, Data acquisition and integration
	22 nd	Device data storage- Unstructured data storage on cloud/local server
	23 rd	Authentication, authorization of devices
	24 th	Revision & Assignment2
7 th	26 th	Unit 4: Understanding the IoT Big Picture
	27 th	Building the Internet of Things
	29 th	Understanding Smart Devices, Building Blocks
	28 th	Understanding Network Connections
8 th	29 th	Understanding IP Adresses
	30 th	Understanding cellular Network & Mesh Network
	31 st	Revision
	32 nd	Student presentation
9 th	33 rd	Unit 5: What is Smart TV & its use
	34 th	What is inside Smart TV
	35 th	What a Smart TV does
	36 th	Smart TV Operating Systems
10 th	37 th	What is Smart TV Set-Top Devices
	38 th	Integrating Smart TV in to IOT
	39 th	Revision, Assignment3
	40 th	Video class / Swayam/ NPTEL
11 th	41 st	Unit 6: IoT case studies a. Smart Home
	42 nd	Smart Home
	43 rd	b. Smart car
	44 th	c. Smart Cities
12 th	45 th	c. Smart Cities
	46 th	d. Smart Drones
	47 th	Arduino Programming for Smart city
	48 th	Arduino Programming for Smart home
13 th	49 th	Industrial automation
	50 th	Industrial automation
	51 st	Revision, Assignment 4

14th	52 nd	Quiz2
	53 rd	Revision
	54 th	Practice short question
	55 th	Surprise Test/Quiz Test
	56 th	Doubt Clearing Class
15th	57 th	Doubt Clearing Class
	58 th	Doubt Clearing Class
	59 th	Previous Year Question Discussion
	60 th	Previous Year Question Discussion


Signature Of Faculty


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