

LESSON PLAN

BRANCHE: COMP.SC. & ENGG.	SEMESTER : 6 TH	NAME OF TEACHING FACULTY : ER. ADITYA NARAYAN JENA
SUBJECT: INTERNET OF THINGS	NO. OF DAYS/ PER WEEK CLASS ALLOTTED : 05	SEMESTER FROM DATE : 04.02.2025 TO 17.05.2025 NO. OF WEEKS : 15
WEEK	CLASSDAY	THEORY TOPICS
1ST	1 st	1.Introduction to Internet of Things: Introduction, Characteristics of IoT, Applications of IoT
	2 nd	IoT Categories, IoT Enablers and connectivity layers
	3 rd	Baseline Technologies, Sensor
	4 th	Actuator
	5 th	Revision
2ND	1 st	IoT components and implementation, Challenges for IoT
	2 nd	Question Answer Discussion
	3 rd	2.IOT Networking: Terminologies, Gateway Prefix allotment, Impact of mobility on Addressing
	4 th	Multihoming
	5 th	Revision
3RD	1 st	Deviation from regular Web
	2 nd	IoT identification and Data protocols(Cont..)
	3 rd	IoT identification and Data protocols
	4 th	Question Answer Discussion
	5 th	Revision
4TH	1 st	3.Connectivity Technologies: Introduction, IEEE 802.15.4
	2 nd	ZigBee, 6LoWPAN
	3 rd	RFID, HART and wireless HART
	4 th	NFC, Bluetooth,
	5 th	Revision
5TH	1 st	Z wave, ISA100.11.A
	2 nd	class Test
	3 rd	4.Wireless Sensor Networks: Introduction, Components of a sensor node, Modes of Detection
	4 th	Challenges in WSN ,Sensor Web

	5 th	Revision
6 TH	1 st	Cooperation and Behaviour of Nodes in WSN, Self Management of WSN, Social sensing WSN
	2 nd	Application of WSN , Wireless Multimedia sensor network, Wireless Nano sensor Networks
	3 rd	Underwater acoustic sensor networks , WSN Coverage
	4 th	Stationary WSN, Mobile WSN
	5 th	Revision
7 TH	1 st	5.M2M Communication: M2M communication
	2 nd	M2M Ecosystem
	3 rd	M2M service Platform
	4 th	Interoperability
	5 th	Revision
8 TH	1 st	Question Answer Discussion
	2 nd	Class Test
	3 rd	6.Programming with Arduino: Features of Arduino
	4 th	Components of Arduino Board
	5 th	Revision
9 TH	1 st	Arduino IDE
	2 nd	Case Studies
	3 rd	Question Answer Discussion
	4 th	7.Programming with Raspberry Pi: Architecture
	5 th	Revision
10 TH	1 st	Pin Configuration
	2 nd	Case studies
	3 rd	Case studies
	4 th	Implementation of IoT with Raspberry Pi
	5 th	Revision
11 TH	1 st	8.Software defined Networking: Limitation of current network, Origin of SDN
	2 nd	SDN Architecture
	3 rd	Rule Placement, Open flow Protocol
	4 th	Controller placement, Security in SDN , Integrating SDN in IoT
	5 th	Revision
12 TH	1 st	Question Answer Discussion
	2 nd	Class Test

	3rd	9.Smart Homes: Origin and example of Smart Home Technologies
	4th	Smart Home Implementation
	5th	Revision
13 TH	1st	Home Area Networks(HAN)(cont..)
	2nd	Home Area Networks(HAN), (Smart Home benefits and issues
	3rd	Question Answer Discussion
	4th	10.Smart Cities: Characteristics of Smart Cities, Smart city Frameworks
	5th	Revision
14 TH	1st	Challenges in Smart cities
	2nd	Data Fusion
	3rd	Smart Parking , Energy Management in Smart cities
	4th	11.Industrial IoT: IIoT requirements, Design considerations
	5th	Revision
15 TH	1st	Applications of IIoT , Benefits of IIoT
	2nd	Challenges of IIoT
	3rd	Question Answer Discussion
	4th	Final revision
	5th	Final revision

Aditya Nanayan Jena

SIGNATURE OF LECTURER

Dipakranjan Sahoo

SIGNATURE OF H.O.D