LESSON PLAN 2024(SUMMER)

Discipline: Information Technology	Semester :6th	Name of the Teaching faculty: Madhusmita Dalai
Subject : Internet of Things	No.of Days/per week class allotted : 04	Semester from date:16/01/2024 to26/04/2024 No. of weeks : 15
Week	Class Day	Theory / Practical Topics
1st	1st	Introduction to Internet of Things.
	2nd	Characteristics of IoT.
	3rd	Applications of IoT
2nd	1st	IoT Categories
	2nd	IoT Enablers and connectivity layers
	3rd	Baseline Technologies
3rd	1st	Sensor
	2nd	Actuator
	3rd	IoT components and implementation
	4th	Challenges for IoT
4th	1st	Question Answer Discussion
	2nd	IOT Networking
	3rd	Terminologies
	4th	Gateway Prefix allotment
5th	1st	Impact of mobility on Addressing
	2nd	Multihoming
	3rd	Deviation from regular Web
	4th	IoT identification and Data protocols
6th	1st	Question Answer Discussion
	2nd	Introduction to Connectivity Technologies
	3rd	IEEE 802.15.4, ZigBee, 6LoWPAN
	4th	RFID, HART and wireless HART
	5th	NFC, Bluetooth, Z wave, ISA100.11.A
7th	1st	Introduction Wireless Sensor Networks
	2nd	Components of a sensor node
	3rd	Modes of Detection, Challenges in WSN
	4th	Sensor Web, Cooperation and Behaviour of Nodes in WSN
8th	1st	Self-Management of WSN
	2nd	Social sensing WSN
	3rd	Application of WSN
9th	1st	Wireless Multimedia sensor network
	2nd	Wireless Nano sensor Networks
	3rd	Underwater acoustic sensor networks, WSN Coverage

	4th	Stationary WSN, Mobile WSN
10th	1st	Question Answer Discussion
	2nd	M2M communication, M2M Ecosystem
	3rd	M2M service Platform, Interoperability
	4th	Programming with Arduino, Features of Arduino
	5th	Components of Arduino Board, Arduino IDE
11th	1st	Case Studies
	2nd	Programming with Raspberry Pi
	3rd	Architecture and Pin Configuration
	4th	Case studies
12th	1st	Implementation of IoT with Raspberry Pi
	2nd	Software defined Networking, Limitation of current network
	3rd	Origin of SDN, SDN Architecture
	4th	Rule Placement, Open flow Protocol, Controller placement, Security in SDN
13th	1st	Integrating SDN in IoT
	2nd	Smart Homes, Origin and example of Smart Home Technologies
	3rd	Smart Home Implementation, Home Area Networks(HAN)
	4th	Smart Home benefits and issues
14th	1st	Smart Cities, Characteristics of Smart Cities, Smart city Frameworks
	2nd	Challenges in Smart cities, Data Fusion, Smart Parking
	3rd	Energy Management in Smart cities
	4th	Industrial IoT, IIoT requirements
15th	1st	Design considerations, Applications of IIoT
	2nd	Benefits of IIoT, Challenges of IIoT
	3rd	Question Answer Discussion / Quiz
	4th	Revision and last year Question Discussion

Madhusmita Palai

Signature of faculty

16.1.24