


Academic Lesson Plan of Summer 2023

Department : Information Technology	Semester : 6th		Name of the teaching faculty: Madhusmita Dalai
Week	Days	Theory	
Subject: Internet of Things	No. of days/ per week class allotted : 4p/week.	Semester from : 14th feb2023 to 23rd may 2023	
Feb 3rd week	1 st	Introduction to Internet of Things	
	2 nd	Characteristics of IoT	
	3 rd	Applications of IoT	
	4 th	IoT Enablers and connectivity layers	
Feb 4th week	1 st	Baseline Technologies, Sensor	
	2 nd	Actuator	
	3 rd	IoT components and implementation, Challenges for IoT	
	4 th	IOT Networking, Terminologies	
March 1st week	1 st	Gateway Prefix allotment	
	2 nd	Impact of mobility on Addressing	
	3 rd	Multihoming	
	4 th	Deviation from regular Web	
March 2nd week	1 st	IoT identification and Data protocols	
	2 nd	Connectivity Technologies, Introduction	
	3 rd	IEEE 802.15.4, ZigBee, 6LoWPAN	
	4 th	RFID, HART and wireless HART	
March 3rd week	1 st	NFC, Bluetooth, Z wave, ISA100.11.A	
	2 nd	Wireless Sensor Networks Introduction, Components of a sensor node	
	3 rd	Modes of Detection, Challenges in WSN, Sensor Web	
	4 th	Cooperation and Behaviour of Nodes in WSN, Self Management of WSN	
March 4th week	1 st	Social sensing WSN, Application of WSN, Wireless Multimedia sensor network	
	2 nd	Wireless Nanosensor Networks, Underwater acoustic sensor networks	
	3 rd	WSN Coverage, Stationary WSN, Mobile WSN	
	4 th	M2M Communication, M2M Ecosystem	
April 1st week	1 st	M2M service Platform, Interoperability	
	2 nd	Programming with Arduino Features of Arduino, Components of Arduino Board	
	3 rd	Arduino IDE, Case Studies	
	4 th	Programming with Raspberry Pi	
	3 rd	Architecture and Pin Configuration, Case studies	
	4 th	Implementation of IoT with Raspberry Pi	
April 2nd week	1 st	Software defined Networking, Limitation of current network	
	2 nd	Origin of SDN, SDN Architecture	
	3 rd	Rule Placement, Open flow Protocol	
	4 th	Controller placement	
	5 th	Security in SDN, Integrating SDN in IoT	
April 3rd week	1 st	Smart Homes, Origin and example of Smart Home Technologies	
	2 nd	Smart Home Implementation, Home Area Networks (HAN)	
	3 rd	Smart Home benefits and issues	
	4 th	Smart Home benefits and issues	
April 4th week	1 st	REVISION	
	2 nd	Smart Cities, Characteristics of Smart Cities	
	3 rd	REVISION	
	4 th	Smart city Frameworks, Challenges in Smart cities	
May 1st week	1 st	Smart city Frameworks, Challenges in Smart cities	
	2 nd	REVISION	
	3 rd	Data Fusion, Smart Parking	
	4 th	Energy Management in Smart cities	
May 2nd week	1 st	Industrial IoT	
	2 nd	REVISION	
	3 rd	IIoT requirements	
	4 th	Design considerations	
May 3rd week	1 st	Design considerations	
	2 nd	Benefits of IIoT	
	3 rd	REVISION	
	4 th	Challenges of IIoT	
May 4th week	1 st	REVISION	
	2 nd	REVISION	
	3 rd	REVISION	
	4 th	REVISION	


 Signature of the Faculty
 13/05/23