UTKALMANI GOPABANDHU INSTITUTE OF ENGINEERING, ROURKELA

LESSON PLAN

SESSION: 2023-2024

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING

SUBJECT CODE: Th.4

NAME OF THE SUBJECT: INTERNET OF THINGS

BRANCH: ELECTRONICS & TELECOMMUNICATION

SEMESTER: DIPLOMA 6TH SEM

NUMBER OF CLASSES ALLOTED PER WEEK: 4

TOTAL PERIODS ALLOTED TO THE SUBJECT ACCORDING TO SCTEVT: 60

NAME OF THE FACULTY: PRIYADARSHINI MISHRA

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NO OF CLASSES ALLOTTED PER WEEK: 4(16/01/2024 to 26/04/2024)

NAME OF THE FACULTY: PRIYADARSHINI MISHRA

Week/Date	Lecture	Topic to be covered
1st week	1st	NA
		CHAPTER-1 What is IoT. & Architectural Overview of IOT
	2nd	Design principles of IOT
	3rd	Needed capabilities of IOT
2nd week 20/02/2023 To 25/02/2023	1st	IoT Applications
	2nd	Sensing, Actuation
	3rd	Basics of Networking, M2M
	4th	Basics of Networking- IoT Technology
3rd week 27/02/2023 To 04/03/2023	1st	Fundamentals- Devices and gateways
	2nd	Everything as a Service(XaaS),

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Week/Date	Lecture	Topic to be covered
	3rd	Role of Cloud in IoT,
	4th	Security aspects in IoT
4th week 06/03/2023 To 11/03/2023	1st	**CHAPTER-2** Introduction to Hardware Components Computing (Arduino)
	2nd	Components of Arduino
	3rd	Components of Raspberry Pi
	4th	Components of Raspberry Pi

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5th week 13/03/2023 To 18/03/2023	1st	Communication, Sensing
	2nd	Actuation, I/O interfaces
	3rd	Software Components- Programming API's (using Python) for Communication
	4th	Programming using Python
6th week 20/03/2023 To 25/03/2023	1st	Programming using Python
	2nd	Programming using Python
	3rd	Protocols –MQTT
	4th	Protocols – ZigBee

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7th week 27/03/2023 To 01/04/2023	1st	Protocols -Bluetooth, COAP
	2nd	Protocols - UDP, TCP
	3rd	**CHAPTER-3** Solution framework for IoT applications
	4th	Implementation of Device integration
8th week 03/04/2023 To 08/04/2023	1st	Data acquisition
	2nd	Data integration
	3rd	Device data storage- Unstructured data storage on cloud/local server
	4th	Device data storage- Unstructured data storage on cloud/local server

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9th week 10/04/2023 To 15/04/2023	**1st**	Authentication, authorization of devices.
	2nd	**CHAPTER-4** Understanding the IoT Big Picture
	3rd	Understanding the IoT Big Picture
	4th	Building the Internet of Things
10th week 17/04/2023 To 22/04/2023	**1st**	Understanding Building Blocks
	2nd	Understanding Network Conections
	3rd	Understanding IP Adresses
	4th	Understganding Cellular & Mesh Network

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11th week 24/04/2023 To 29/04/2023	1st	**CHAPTER-5** What is Smart TV & its use	
	2nd	What is inside Smart TV	
	3rd	What is inside Smart TV	
	4th	What a Smart TV does	
12th week 01/05/2023 To 06/05//2023	1st	Smart TV Operating Systems	
	2nd	What is Smart TV Set	
	3rd	Top Devices of Smart TV	
	4th	Intergrating Smart TV in to IOT	

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13th week 08/05/2023 To 13/05//2023	1st	**CHAPTER-6** Smart Home
	2nd	Examples of Smart Home Technologies
	3rd	How Smart homes work
	4th	Smart Automation
14th week 15/05/2023 to 20/05/2023	1st	Role of IOT in Smart home concept
	2nd	Role of IOT in Smart home concept
	3rd	Pros & Cons of Smart home
	4th	Real life examples of Smart home
15th Week 22/05/2023 to 23/05/023	1st	Revision
	2nd	Revision
	3rd	Semester Question Discussion
	4th	NA