

SYNERGY POLYTECHNIC, BBSR

The Lesson Plan

Discipline: <u>CSE</u>	Semester: <u>6th</u>	Name of the Teaching Faculty: <u>Ashwanya Mohapatra</u>
Subject: <u>IOT</u> <u>Internet of Thing</u>	No of Days/per week class allotted: <u>4</u>	Semester from Date: <u>4.02.25</u> to Date: <u>17.05.25</u>
Week	Class Day	Theory/Practical Topics
1st	1st	Introduction, characteristics of IOT.
	2nd	Applications and categories of IOT.
	3rd	IOT enablers and Connectivity Layers
	4th	Baseline, Sensor and actuator technologies.
	5th	
2nd	1st	Components of IOT & their implementation
	2nd	Challenges of IOT.
	3rd	Basic Terminologies of IOT Networking (Chapter-2)
	4th	Continuing -terminologies.
	5th	
3rd	1st	Gateway & Prefix allotment, mobility addressing
	2nd	multihoming & mobility addressing
	3rd	Deviation from regular web
	4th	Identification of IOT & Data protocols.
	5th	(Assignment-1)
4th	1st	Introduction to Connectivity technologies.
	2nd	Description of IEEE 802.15.4
	3rd	Continue IEEE 802.15.4.
	4th	ZigBee 6LOWPAN (Description)
	5th	Monthly-1)
5th	1st	About RFID, HART and wireless HART
	2nd	Description of NFC, Bluetooth & Z-wave, ISA100.11.A
	3rd	About Wireless Sensor/CO & components of sensor nodes.
	4th	Model of Detection & challenges of WSN.
	5th	

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Discipline:	Semester: 6 th	Name of the Teaching Faculty: Aishwarya Mohapatra
Subject: IOT	No of Days/per week class allotted:	Semester from Date: 04.02.25 to Date: No of Weeks:
Week	Class Day	Theory/Practical Topics
1st	1st	Sensor web, cooperation & Behaviour of nodes in WSN, self management of WSN
	2nd	Social Sensing WSN Application of WSN
	3rd	(1) Continue Application:- Wireless Nano sensor/wireless underwater acoustic sensor/w
	4th	WSN coverage, Stationary WSN, mobile WSN
	5th	(Assignment-2)
2nd	1st	Define m2m Communication & Ecosystem.
	2nd	Continue m2m Communication
	3rd	m2m Service Platform
	4th	Continue m2m Service Platform
	5th	
3rd	1st	Describe Interoperability
	2nd	Continue Interoperability
	3rd	Features of Arduino
	4th	Components of Arduino board
	5th	
4th	1st	Arduino IDE, Case studies
	2nd	Continue Arduino IDE,
	3rd	Continue Case studies
	4th	Architecture and Pin configuration
	5th	(Assignment-3)
5th	1st	Continue Architecture & Pin config.
	2nd	Case studies
	3rd	Implementation of IOT with Raspberry Pi
	4th	Continue Implementation of IOT
	5th	(Monthly-7)

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Discipline:	Semester:	Name of the Teaching Faculty: <u>Ashwarya Mohapatra</u>
Subject:	No of Days/per week class allotted:	Semester from Date: <u>04.02.23</u> to Date: No of Weeks:
Week	Class Day	Theory/Practical Topics
1st	1st	Limitation of Current network
	2nd	origin of SDN & Architecture
	3rd	SDN Architecture, Rule placement,
	4th	Open Flow protocol, Controller placement
	5th	(Assignment-3)
2nd	1st	Security in SDN
	2nd	How to integrate SDN in IoT
	3rd	Origin and examples of Smart home Technology
	4th	How to implement Smart home
	5th	
3rd	1st	Home Area network (HAN)
	2nd	Continue HAN
	3rd	Benefits & issues of Smart phones
	4th	Characteristics of Smart cities
	5th	(Assignment-4)
4th	1st	Framework of Smart cities
	2nd	Challenges in Smart cities, Data Fusion
	3rd	Smart parking CI
	4th	How to know about IT & energy management in Smart cities
	5th	(Monthly-3)
5th	1st	IoT requirements, and
	2nd	Design consideration in IoT
	3rd	Applications of IoT
	4th	Benefit and challenges of IoT
	5th	(Assignment-5)

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