

6<sup>th</sup> sem, IOT

# BHARAT INSTITUTE OF ENGINEERING & TECHNOLOGY

SIVARAM VIHAR, GHATAKESWAR HILLS  
MOHADA, BERHAMPUR (GM.)




## STUDENT'S ATTENDANCE REGISTER

Time	9.5 - 9.55	10.45 - 11.35			
Day					
MON		IOT			
TUE	IOT				
WED	IOT				
FRI	IOT				

Year/ Session	6 <sup>th</sup> sem (13.2.23 - 23.5.23) / Summer
Semester & Branch	6 <sup>th</sup> sem & E.T.C
Subject with Code	TH4011 - Internet of things
Name of the Faculty Member	E. Madhusmita patra

# B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
	3rd Week	13.2.23	<u>1. Introduction to IoT</u> 1.1 What is IoT... 1.2 Architectural Overview
		14.2.23	1.3 Design principles and needed capabilities
		15.2.23	1.4 IoT Applications, sensing, actuation
		17.2.23	1.5 Basic of Networking, M2M and IoT Technology
		20.2.23	1.6 Fundamentals - Devices and gateways
	4th Week	24.2.23	1.7 Data Management, Business processes in IoT
		29.2.23	1.8 Everything as a Service (XaaS)
		24.2.23	1.9 Role of Cloud in IoT, Security aspects in IoT.

Signature of the Faculty:

Signature of the Principal/Course Co-ordinator/HOD:

# B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
			2. <u>Elements of IoT</u>
		27.2.23	2.1 Hardware components - computing (Arduino, Raspberry Pi)
		28.2.23	
		1.3.23	2.2 Communication, Sensing, Actuator I/O interfaces
		3.3.23	
		6.3.23	2.3 Software components - Programming API'S Using python/Node.js/Arduino for communication
		10.3.23	
		12.3.23	
		14.3.23	2.4 Protocols - MQTT, Zigbee, Bluetooth, CoAP, UDP, TCP.
		15.3.23	
		17.3.23	

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# B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
			<u>3. IoT Application Development</u>
		20.3.23	3.1 Solution framework for IoT applications.
		21.3.23	
		22.3.23	
		24.3.23	3.2 Implementation of Device integration,
		27.3.23	
		28.3.23	3.3 Data acquisition and integration,
		31.3.23	
		3.4.23	
		4.4.23	3.4 Device data storage - Unstructured data storage on cloud / local servers,
		5.4.23	
		10.4.23	
		11.4.23	3.5 Authentication, authorization of devices
		12.4.23	
		17.4.23	
			<u>4. Smart Technology</u>
		18.4.23	4.1 Understanding the IoT Big Picture
		19.4.23	4.2 Building the Internet of Things
		21.4.23	4.3 Understanding Smart Devices, Building Blocks
		24.4.23	
		25.4.23	4.4 Understanding Network connections
		28.4.23	

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# B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
		1.5.23 2.5.23	4.5 Understanding IP Addresses
		3.5.23 8.5.23	4.6 Understanding cellular Network & Mesh Network
			5. <u>Smart TVs: viewing in a connected world</u>
		9.5.23	5.1 What is smart TV & its Things
		10.5.23	5.2 What is inside smart TV
		11.5.23	5.3 What is smart TV does
		15.5.23 16.5.23	5.4 Smart TV operating systems
		17.5.23	5.5 What is smart TV set-Top Devices
		22.5.23 23.5.23	5.6 Integrating smart TV in to IoT.

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# B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
			<p data-bbox="573 342 967 422"><u>6. IoT case studies</u></p> <p data-bbox="573 426 1255 506">6.1 IoT case studies (any one)</p> <ul style="list-style-type: none"><li data-bbox="727 510 1077 569">a. Smart Home</li><li data-bbox="747 594 1035 653">b. Smart Car</li><li data-bbox="754 678 1077 737">c. Smart cities</li><li data-bbox="754 762 1131 821">d. Smart Devices</li></ul> <p data-bbox="559 877 1118 947">6.2 Industrial automation</p>

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