

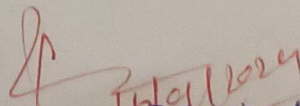
# Academic Lesson Plan of Summer 2024

Department : CSE	Semester : 6TH	Name of the Teaching Faculty : SOMYASHREE SAMAL
Subject : CRYPTOGRAPHY & NETWORK SECURITY	No. of Days/per week class allotted : 4Period/week	Semester from : 16TH JANUARY 2024
		No of Weeks : 15 Weeks
		Topic to be covered :
WEEK	DAYS	TOPIC
1st Week	1st	The need for Security
	2nd	Continue
	3rd	Security Approach
	4th	Continue
2nd Week	1st	Principles of Security
	2nd	Continue
	3rd	Types of Attacks
	4th	Continue
3rd Week	1st	Cryptography Concepts Plain Text & Cipher Text
	2nd	Substitution techniques
	3rd	Continue
	4th	Transposition Techniques
4th Week	1st	Encryption & Decryption
	2nd	Continue
	3rd	Symmetric & Asymmetric Key Cryptography
	4th	Continue
5th Week	1st	Symmetric Key Algorithm types
	2nd	Continue
	3rd	Overview of Symmetric Key Cryptography
	4th	Continue
6th Week	1st	Data Encryption Standards
	2nd	Continue
	3rd	The RSA Algorithm
	4th	Continue
7th Week	1st	Symmetric & Asymmetric Key Cryptography
	2nd	Continue
	3rd	Digital Signature
	4th	Continue
	1st	Digital Certificates



WEEK	DAYS	TOPIC
8th Week	2nd	Continue
	3rd	Continue
	4th	Private Key Management
9th Week	1st	PKIX Model
	2nd	Continue
	3rd	Public Key Cryptography Standards
	4th	Continue
10th Week	1st	Basic Concept
	2nd	Secure Socket Layer
	3rd	Continue
	4th	Transport Layer Security
11th Week	1st	Secure Hyper Text transfer Protocol (SHTTP)
	2nd	Time Stamping Protocol (TSP)
	3rd	Secure Electronic Transaction (SET)
	4th	Continue
12th Week	1st	Authentication basics
	2nd	Continue
	3rd	Password
	4th	Continue
13th Week	1st	Authentication Tokens
	2nd	Certificate Based Authentication
	3rd	Continue
	4th	Biometric Authentication
14th Week	1st	Revision
	2nd	Brief Introduction of TCP/IP
	3rd	Continue
	4th	Firewall
15th Week	1st	Continue
	2nd	IP Security
	3rd	Virtual private Network (VPN)
	4th	Revision & Semester Question Answer Discussion

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Karanda, Dhenkanal

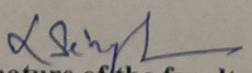


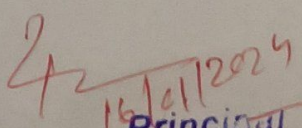
## Academic Lesson Plan of Summer 2024

Department : CSE	Semester : 6TH	Name of the Teaching Faculty : LOPAMUDRA SINGH
Subject : INTERNET OF THINGS	No. of Days/per week class allotted : 4Period/week	Semester from : 16TH JANUARY 2024
		No of Weeks : 15 Weeks
		Topic to be covered :
WEEK	DAYS	TOPIC
1st Week	1st	Introduction of IOT, Character of IOT
	2nd	Application of IOT, IOT Categories
	3rd	Baseline Technology, Sensor
	4th	Actuators, IOT Components & implementation
2nd Week	1st	Challenges of IOT
	2nd	Networking Terminology, Prefix Allotment
	3rd	Mobility on addressing, Multihoming
	4th	Deviation of regular web
3rd Week	1st	IOT Identification & Data Protocol
	2nd	Technology of Connectivity
	3rd	IEEE 802.15.4, Zigbee, Doubt Class
	4th	6 LOWPAN, RFID, HART & Wireless HART
4th Week	1st	NFC, Bluetooth, Z, Wave, ISA 100.11.A
	2nd	Wireless Sensors & Components
	3rd	Modes of Detection of Sensors
	4th	Challenges in WSN, Sensor Web
5th Week	1st	Co-operation & Behaviour of nodes in WSN
	2nd	Self mgmt, Social Sensing WSN
	3rd	Application of WSN
	4th	Wireless Multimedia Sensor Network
6th Week	1st	Wireless Nano Sensor Network
	2nd	Under Water Acoustic Sensor Network
	3rd	WSN Coverage
	4th	Stationary WSN, Mobile WSN
7th Week	1st	M2M Communication
	2nd	M2M Ecosystem, M2M Platform
	3rd	Interoperability, Doubt In Communication
	4th	Fundamental of Arduino
	1st	Features of Arduino



WEEK	DAYS	TOPIC
8th Week	2nd	Components of Arduino Board
	3rd	Arduino IDE
	4th	Case Studies
9th Week	1st	IOT with Rasbery PI
	2nd	Limitation of Current Network
	3rd	Origin SDN
	4th	Discuss of Rasbery PI
10th Week	1st	Introduction to Software Defining Network
	2nd	Limitation of Current Network
	3rd	Origin of SDN
	4th	Architecture of SDN
11th Week	1st	Rule Placement, Open Flow Protocol
	2nd	Controller Placement
	3rd	Security of SDN
	4th	Integrating SDN in IOT
12th Week	1st	Introduction to Smart Home
	2nd	Origin of Smart Technology
	3rd	Some Example of Smart Home Technology
	4th	Implimentation of Smart Home
13th Week	1st	HAN, Examples of HAM
	2nd	Smart Home Benefits & Issues
	3rd	Smart Cities Overview
	4th	Characteristics of Smart Cities
14th Week	1st	Smart city Framework, Challenges
	2nd	Data fusion
	3rd	Smart Packing, Energy MGMT in Smart cities
	4th	Introduction to Industrial IOT
15th Week	1st	IIOT Requirements
	2nd	Design Consideration, Application of IIOT
	3rd	Benefits and Challenges of IIOT
	4th	Revision & Semester Question Answer Discussion

  
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# Academic Lesson Plan of Summer 2024

Department : CSE	Semester : 6TH	Name of the Teaching Faculty : SOMYASHREE SAMAL
Subject : CLOUD COMPUTING	No. of Days/per week class allotted : 4Period/week	Semester from : 16TH JANUARY 2024
		No of Weeks : 15 Weeks
		Topic to be covered :
WEEK	DAYS	TOPIC
1st Week	1st	Introduction to Cloud Computing, Historical Development
	2nd	Vision of Cloud Computing, Characteristics of Cloud Computing
	3rd	Cloud Computing Reference model, CC Environment
	4th	Cloud Service Requirements and Dynamic Infrastructure
2nd Week	1st	Cloud Adoption, Cloud Application
	2nd	Introduction to Cloud Computing Architecture
	3rd	Cloud referce Model, Types of Clouds
	4th	Cloud Interoperatibility and Standards, Use Cases
3rd Week	1st	Role of Standards in Cloud Computing Environment
	2nd	Scalability and Fault Tolerance, Introduction
	3rd	Cloud Solutions, Cloud Ecosystem
	4th	Cloud Business process Management
4th Week	1st	Portability and Interoperatibility, Cloud Service Management
	2nd	Cloud Offering, Testing Under Control
	3rd	Cloud Service Controls, Virtual Desktop Infrastructure
	4th	Cloud Management and Virtual Technology
5th Week	1st	Create a Virtualised Architecture, Data Centre
	2nd	Resilience, Agility, Cisco Data Center Network architecture
	3rd	Storage, Provisioning, Assets Management
	4th	Concept of Map Reduce, Cloud Goverance, Load Balancing
6th Week	1st	High availability, Disaster recovery, Virtualisation
	2nd	Network Virtualisation
	3rd	Desktop and Application Virtualisation
	4th	Desktop as a Service, Local Desktop Virtualisation
7th Week	1st	Virtualisation Benefits and Server Virtualisation
	2nd	Block and File Level Storage Virtualisation
	3rd	Virtual Machine Monitor
	4th	Infrastructure Requirements, VLAN and VSAN
8th Week	1st	Cloud Security
	2nd	Cloud Security Fundamentals and Services



WEEK	DAYS	TOPIC
8th Week	3rd	Design Principles, Secure Cloud Software Requirements
	4th	Policy Implimentation
9th Week	1st	Cloud Computing Security Challenges
	2nd	Cloud Computing Security Architecture
	3rd	Architectural Considerations
	4th	Information Classification, Virtual Private Networks
10th Week	1st	Virtual Private Networks
	2nd	Public Key and Encryption Key Management
	3rd	Digital Certificates, Key Management
	4th	Memory Cards
11th Week	1st	Implimenting Identity Management
	2nd	Controls and Autonomic Systems
	3rd	Market Based management of Clouds
	4th	Cloud Information Security Vendors
12th Week	1st	Cloud Federation and Characterisation
	2nd	Cloud Federation Stack
	3rd	Third Party Cloud Service
	4th	Case Study Third party Cloud Service
13th Week	1st	Case Study, Google app Engine
	2nd	Microsoft a Zone
	3rd	Case Study Hadoop
	4th	Introduction to Hadoop
14th Week	1st	Data Sources
	2nd	Data Storage and Analysis
	3rd	A brief history of Hadoop
	4th	Comparison with other System
15th Week	1st	Hadoop at yahoo
	2nd	Apache Hadoop
	3rd	Doubt Clearing Class
	4th	Revision & Semester Question Answer Discussion

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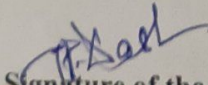


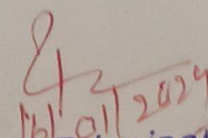
# Academic Lesson Plan of Summer 2024

Department : CSE	Semester : 6TH	Name of the Teaching Faculty : JITENDRA PRASAD DASH
Subject : E-COMMERCE	No. of Days/per week class allotted : 4Period/week	Semester from : 16TH JANUARY 2024
		No of Weeks : 15 Weeks
		Topic to be covered :
WEEK	DAYS	TOPIC
1st Week	1st	Introduction to E-Commerece
	2nd	Introduction to E-Commerece
	3rd	What is E-Commerce
	4th	Categories of E-Commerce Application
2nd Week	1st	E-Business
	2nd	Global Trading Environment Adoption of E-Commerce
	3rd	Adoption of E-Commerce
	4th	Comparission between Traditional and E-Commerce
3rd Week	1st	Advantages and Disadvantage
	2nd	Business Models of E-Commerce
	3rd	Introduction to Business Models of E-Commerce
	4th	B2C Model
4th Week	1st	B2B Model
	2nd	Difference Between B2C and B2B Model
	3rd	C2C Model
	4th	B2B E-Commerce and EDI
5th Week	1st	Introduction
	2nd	Need for B2B
	3rd	EDI
	4th	Paperless Transaction
6th Week	1st	EDI Standards
	2nd	Data Standard s used in EDI
	3rd	Cost of EDI
	4th	Reasons for Slow Acceptability
7th Week	1st	Electronic Fund Transfer
	2nd	XML and its Application
	3rd	Comparison Between HTML and XML
	4th	Advantage of XML as a Technology
8th Week	1st	Business Application of E-Commerece & Introduction
	2nd	Trade Cycle, Supply Chain



WEEK	DAYS	TOPIC
8th Week	3rd	E-Procurement, Implementing E-Procurement
	4th	Competitive Advantages
9th Week	1st	E-Commerce Application in manufacturing Wholesale
	2nd	E-Commerce Application in Retail and Service Sector
	3rd	E-Commerce Technology, Introduction
	4th	IT Infrastructure
10th Week	1st	Internet, Middleware and Intranet
	2nd	Extranet, VPN, Firewall, Cryptography
	3rd	Digital Signature, Digital Envelope, Certificate
	4th	Contents, Electronic Payment Technology
11th Week	1st	Introduction, Electronic Payment Mechanism
	2nd	Types of Payment System, Risk Associated with E-Payment
	3rd	Risk Management Option, Payment Gateway
	4th	Issue of E-payment Technology, Recommendations
12th Week	1st	Internet banking, Security Requirement, Secure Socket Layer
	2nd	Biometrics, Security issues in E-commerce
	3rd	Introduction, E-commerce Security Issues
	4th	Risk involved in E-commerce
13th Week	1st	Protecting E-commerce System
	2nd	Common E-commerce Security Tools
	3rd	Client Server Network Security
	4th	Client Server Network Security
14th Week	1st	Data and Message Security
	2nd	Current Trends in Electronic World
	3rd	E-waste
	4th	E-surveillance
15th Week	1st	E-governance
	2nd	E-care
	3rd	Doubt clearing class
	4th	Revision of all topics with Semester Questions

  
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