

SYNERGY POLYTECHNIC, BBSR

The Lesson Plan

Discipline: CSE	Semester: 6th	Name of the Teaching Faculty: Tapaswini Paul
Subject: Cryptography & W/C Security	No of Days/per week class allotted: 4	Semester from Date: 01/08/25 to Date: 12.05.25
Week	Class Day	Theory/Practical Topics
1st	1st	1. Possible attacks on Computers
	2nd	1.1 The need for security
	3rd	1.2 security approach
	4th	1.3 Principles of security
	5th	1.4 Types of attacks
2nd	1st	continuing Types of attacks
	2nd	2. Cryptography Concepts
	3rd	2.1 plain text & cipher text
	4th	2.2 substitution techniques
	5th	continuing substitution techniques
3rd	1st	Assignment 1
	2nd	2.3 Transposition techniques
	3rd	continuing Transposition techniques
	4th	2.4 Encryption & Decryption
	5th	continuing Encryption & Decryption
4th	1st	2.5 symmetric & Asymmetric Key cryptography
	2nd	continuing symmetric & Asymmetric Key cryptography
	3rd	continuing symmetric & Asymmetric Key cryptography
	4th	3. Symmetric & Asymmetric Key Algorithm
	5th	3.1 Symmetric Key Algorithm types
5th	1st	Monthly Test I
	2nd	continuing Symmetric Key Algorithm types
	3rd	3.2 Overview of Symmetric key cryptography
	4th	continuing overview of symmetric key cryptography
	5th	3.3 Data encryption standard
		Assignment 2

Tapaswini Paul
Sign of Faculty

for
HOD **P**
30/1/25

Principal **30/1/25**

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Subject:	No of Days/per week class allotted:	Semester from Date: to Date:
Week	Class Day	No of Weeks:
1st	1st	continuing data encryption standard
	2nd	2.4 Overview of Asymmetric Key cryptography
	3rd	continuing overview of Asymmetric Key cryptography
	4th	2.5 The RSA algorithm
	5th	
2nd	1st	continuing The RSA algorithm
	2nd	3.6 Symmetric & Asymmetric Key cryptography
	3rd	continuing symmetric & Asymmetric Key cryptography
	4th	continuing symmetric & Asymmetric Key cryptography
	5th	
3rd	1st	3.7 Digital Signature
	2nd	continuing Digital Signature
	3rd	4. Digital Certificate & Public Key Infrastructure
	4th	4.1 Digital Certificate
	5th	continuing Digital Certificate
4th	1st	4.2 Private Key management
	2nd	continuing Private Key management
	3rd	PKIX Model
	4th	continuing PKIX Model
	5th	Assignment 3
5th	1st	continuing PKIX Model
	2nd	4.4 Public Key Cryptography standards
	3rd	continuing Public Key Cryptography standards
	4th	continuing Public Key Cryptography standards
	5th	Monthly Test 2, Quiz Test 1

Tapaswini Raut
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30/11/24
HOD

2/Jan/2025
Principal

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Subject:	No of Days/per week class allotted:	Semester from Date: to Date: No of Weeks:
Week	Class Day	Theory/Practical Topics
1st	1st	5. Internet security protocols
	2nd	5.1 Basic concept
	3rd	5.2 secure socket layer
	4th	5.3 Transport layer security
	5th	continuing Transport layer security
2nd	1st	5.4 Secure Hyper text transfer - Protocol (SHTTP)
	2nd	continuing SHTTP
	3rd	5.5 Time stamping protocol (TSP)
	4th	continuing TSP
	5th	Assignment 4
3rd	1st	Secure electronic transaction (SET)
	2nd	continuing secure electronic transaction
	3rd	6. User authentication
	4th	6.1 Authentication basics
	5th	6.2 Password 6.2 Authentication Tokens
4th	1st	certificate based authentication
	2nd	Biometric authentication
	3rd	7. Network security & VPN
	4th	7.1 Brief introduction of TCP/IP
	5th	7.2 Firewall
5th	1st	7.3 IP security
	2nd	continuing IP security
	3rd	7.4 Virtual Private Network (VPN)
	4th	continuing VPN, Assignment 5
	5th	Monthly Test 3, Quiz Test 2

Tapas Kumar Raut
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