Academic Lesson Plan of Summer 2025

Department : CSE	Semester : 6th	Name of the teaching faculty: GIRIJA PRASAD SWAIN	
Subject: Cryptography & Network Security	No.of days/per week class allotted . 4p/week.	Semester from :4TH FEB 2025	
		No. of weeks:15 weeks	
		Topics to be covered:	
1st week	1st	1.1 The need for security	
	2nd	Continue	
	3rd	1.2 Security approach	
	4th	Continue	
2nd week	1st	1.3 Principles of security	
	2nd	Continue	
	3rd	1.4 Types of attacks	
	4th	Continue	
3rd week	1st	2. Cryptography concepts 2.1 Plain text & Cipher Text	
	2nd	2.2 Substitution techniques	
	3rd	Continue	
	4th	2.3 Transposition techniques	
4th week	1st	2.4 Encryption & Decryption	
	2nd	Continue	
	3rd	2.5 Symmetric & Asymmetric key cryptography	
	4th	Continue	
5th week	1st	3.1 Symmetric key algorithm types	
	2nd	Continue	
	3rd	3.2 Overview of Symmetric key cryptography	
	4th	Continue	
6th week	1st	3.3 Data encryption standards	
	2nd	Continue	
	3rd	3.5 The RSA algorithm	
	4th	Continue	
7th week	1st	3.6 Symmetric & Asymmetric key cryptography	
	2nd	Continue	
	3rd	3.7 Digital signature	
	4th	Continue	
8th week	1st	4.1 Digital certificates	
	2nd	Continue	
	3rd	Continue	
	4th	4.2 Private key management	
9th week	1st	4.3 PKIX Model	
	2nd	Continue	
	3rd	4.4 Public key cryptography standards	
	4th	Continue	

Week	Period	Topic
10th week	1st	5.1 Basic concept
	2nd	5.2 Secure socket layer
	3rd	Continue
	4th	5.3 Transport layer security
11th week	1st	5.4 Secure Hyper text transfer protocol(SHTTP)
	2nd	5.5 Time stamping protocol (TSP)
	3rd	5.6 Secure electronic transaction (SET)
	4th	Continue
12th week	1st	6.1 Authentication basics
	2nd	Continue
	3rd	6.2 Password
	4th	Continue
13th week	1st	6.3 Authentication Tokens
	2nd	6.4 Certificate based authentication
	3rd	Continue
	4th	6.5 Biometric authentication
14th week	1st	Revision
	2nd	7.1 Brief introduction of TCP/IP
	3rd	Continue
	4th	7.2 Firewall
15th week	1st	Continue
	2nd	7.3 IP Security
	3rd	7.4 Virtual Private Network (VPN)
	4th	Revision & Semester Question Answer Discussion

G.P.Swain
03/02/25
Signature of Faculty

Gyan 3/2/2025
HOD
Sr. Lecture, CSE