

CRYPTOGRAPHY AND INFORMATION SECURITY LAB (Common to CSE&IT)

IV B. Tech. - I Semester
Course Code: A3CS33

L T P C
- - 3 2

COURSE OVERVIEW:

To give practical exposure on basic security attacks, encryption algorithms, authentication techniques. Apart from security algorithms, firewall configuration is also introduced.

COURSE OBJECTIVES:

1. To provide deeper understanding into cryptography, its application to network security, threats/vulnerabilities to networks and countermeasures.
2. To explain various approaches to Encryption techniques, strengths of Traffic Confidentiality, Message Authentication Codes.
3. To familiarize symmetric and asymmetric cryptography

COURSE OUTCOMES:

At the end of this course students will be able to:

1. Identify basic security attacks and services
2. Use symmetric and asymmetric key algorithms for cryptography
3. Make use of Authentication functions

SYLLABUS

LIST OF EXPERIMENTS:

- Lab 1: Implementation of Caesar Cipher technique
- Lab 2: Implement the Play fair Cipher
- Lab 3: Implement the Pure Transposition Cipher
- Lab 4: Implement DES Encryption and Decryption
- Lab 5: Implement the AES Encryption and decryption
- Lab 6: Implement RSA Encryption Algorithm
- Lab 7: Implementation of Hash Functions