



SNS COLLEGE OF ENGINEERING

Kurumbapalayam (Po), Coimbatore – 641 107

An Autonomous Institution

Accredited by NBA-AICTE and Accredited by NAAC – UGC with 'A' Grade Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING(IoT and Cybersecurity Including BCT)

COURSE NAME: Fundamentals Of Cryptography

II YEAR / III SEMESTER

Unit I

Topic : Active and Passive Attacks

Security services and mechanism

Security services and mechanisms are fundamental components of cryptography. Security Services includes:

- 1. Confidentiality: Also known as encryption, this service ensures that information remains private and hidden from unauthorized entities.
- **2. Integrity:** This service ensures that information is not altered or tampered with during transmission or storage. Any unauthorized modifications to the data can be detected.
- **3. Authentication:** This service verifies the identity of communicating parties. It prevents impersonation and ensures that the sender and receiver are who they claim to be.

- **4. Non-Repudiation:** Non-repudiation prevents the sender of a message from denying that they sent it. It provides evidence that a message was indeed sent or received.
- **5. Access Control:** This service regulates who can access certain information or perform specific actions. It helps prevent unauthorized access.