

ST.ANN'S COLLEGE OF ENGINEERING & TECHNOLOGY
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
LESSON PLAN

NAME OF THE SUBJECT: **Cryptography and Network Security**

SECTION: **IV CSE-A**

NAME OF THE INSTRUCTOR: **Mr.T.Seshasai**

| S.No | Unit Number | Topics | No. Of Classes Required |
|-------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| 1 | 1 | Basic Principles Security Goals, Cryptographic Attacks, Services and Mechanisms, Mathematics of Cryptography | 08 |
| 2 | 2 | Symmetric Encryption Mathematics of Symmetric Key Cryptography, Introduction to Modern Symmetric Key Ciphers, Data Encryption Standard, Advanced Encryption Standard. | 15 |
| 3 | 3 | Asymmetric Encryption Mathematics of Asymmetric Key Cryptography, Asymmetric Key Cryptography | 09 |
| 4 | 4 | Data Integrity, Digital Signature Schemes & Key Management Message Integrity and Message Authentication, Cryptographic Hash Functions, Digital Signature, Key Management. | 11 |
| 5 | 5 | Network Security-I Security at application layer: PGP and S/MIME, Security at the Transport Layer: SSL and TLS | 06 |
| 6 | 6 | Network Security-II Security at the Network Layer: IPSec, System Security | 09 |

TOTAL NO. OF CLASSES REQUIRED:

58

TEXT BOOKS:

- 1) Cryptography and Network Security, Behrouz A Forouzan, DebdeepMukhopadhyay, (3e) Mc Graw Hill.
- 2) Cryptography and Network Security, William Stallings, (6e) Pearson.
- 3) Everyday Cryptography, Keith M.Martin, Oxford.

REFERENCE BOOKS:

- 1) Network Security and Cryptography, Bernard Meneges, Cengage Learning.

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