# ANURAG ENGINEERING COLLEGE

## (An Autonomous Institution)

**IV Year B.Tech. CSE - I Sem**

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## (A57213) INFORMATION SECURITY LAB

**PREREQUISITES :**

**1**. A Course on "Computer Networks"

**CO-REQUISITE :**

**1.** A course on "Network Security and Cryptography"

**COURSE OBJECTIVES:**

☐ Understand the Security Scanner through NMAP

☐ Explain the packet analyser.

☐ Understand different encryption algorithms.

☐ Implement simple encryption algorithms using C

☐ Understands brute force attack

Software Requirements:NMAP, WIRESHARK,JCRYPT TOOL.

**Week 1**

     1. Installation of NMAP.

**Week 2**

     2. Implement port scanning with NMAP

**Week 3**

     3. Perform the following using NMAP

       .Find ports on a system

       .Find active  machines

    .Find the version of remote OS.

**Week 4**

     4. Installation of Wireshark.

**Week 5**

     5. Perform an experiment to sniff for router traffic by using Wireshark.

**Week 6,7**

     6 .Implement Simple Data Encryption Standard (SDES) Algorithm through C program

**Week 8,9**

     7. ImplementDiffie–Hellman key exchange  algorithm  through C program.

**Week 10**

     8. Installation of Jcrypt tool

**Week 11**

     9. Implement DES algorithm using Jcrypt tool

**Week 12**

     10. Implement  RSA  algorithm using Jcrypt tool

**Week 13**

     11. Implement  HASH  algorithm using Jcrypt tool

**Week 14**

     12. Implement SHA1 algorithm using Jcrpty tool

**Week 15**

     13. Implement brute force algorithm in C .

## COURSE OUTCOMES:

- ☐ Implements port scanning.
- ☐ Performs security scanning and network exploration
- ☐ Analysis of packet protocols,IP spoofing.
- ☐ Implements various encryption algorithms.
- ☐ Illustrates PGP and digital signature.