

Jawahar Education Society's  
**A.C.patil College of Engineering, Kharghar**  
**Department of Artificial Intelligence & Data Science**  
Academic Year 2023-24  
**List of Experiments**

Class : TE

Course : Cryptographic and system security Lab

Course Code : CSL602

**Lab Outcomes**

Sr. No	CO Code	Course Outcomes
1.	CSL602.1	Apply the knowledge of symmetric cryptography to implement simple ciphers
2.	CSL602.2	Analyze and implement public key algorithms like RSA and El Gamal
3.	CSL602.3	Analyze and evaluate performance of hashing algorithms
4.	CSL602.4	Explore the different network reconnaissance tools to gather information about networks
5.	CSL602.5	Use tools like sniffers, port scanners and other related tools for analyzing packets in a network.
6.	CSL602.6	Apply and set up firewalls and intrusion detection systems using open source technologies and to explore email security.

Sr. No	Name of Experiment	Mapped CO
1	Implementation of a product cipher using Substitution and Transposition ciphers	CSL602.1
2	Implementation and analysis of RSA cryptosystem / Digital signature scheme using RSA/El Gamal.	CSL602.2
3	Implementation of Diffie Hellman Key exchange algorithm	CSL602.2
4	Write program to demonstrate integrity of message using MD5/SHA-1	CSL602.2,3
5	Exploring wireless security tools like Kismet, NetStumbler etc.	CSL602.4,5
6	Study the use of network reconnaissance tools like WHOIS, dig, traceroute, nslookup to gather information about networks and domain registrars.	CSL602.4
7	Study of packet sniffer tools : wireshark, : 1. Download and install wireshark and capture icmp, tcp, and http packets in promiscuous mode. 2. Explore how the packets can be traced based on different filters.	CSL602.4 CSL602.5
8	Download and install nmap/or equivalent tool. Use it with different options to scan open ports, perform OS fingerprinting, do a ping scan, tcp port scan, udp port scan, xmas scan etc.	CSL602.4 CSL602.5
9	Detect ARP spoofing using nmap and/or open source tool ARPWATCH and wireshark	CSL602.4,5
10	a)Set up IPSEC under LINUX. b) Set up Snort and study the logs. c) Explore the GPG tool of linux to implement email security.	CSL602.4,5,6

**Subject I/Cs**  
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