

CAP795:VULNERABILITY ASSESSMENT AND PENETRATION TESTING-LABORATORY

Course Outcomes: Through this course students should be able to

CO1 :: understand the basic concept, fundamentals and practice of penetration testing

CO2 :: apply the working of hacking and cracking techniques, know vulnerabilities in existing software's

CO3 :: analyze legal and illegal techniques used by hackers and their counter measures

CO4 :: evaluate different and specific types of assaults and spoofing techniques.

List of Practicals / Experiments:

Vulnerability Assessment:

- Vulnerabilities
- Major mail vulnerability
- Server application vulnerabilities
- Browser based vulnerabilities
- Web application vulnerabilities
- Web server vulnerabilities
- Windows vulnerabilities

Spoofing:

- IP spoofing attack,
- Spoofing tools

Sniffing and Scanning:

- Sniffing the packet through Wireshark
- Scanning through nmap/zenmap
- Port scanning
- Host scanning
- Scanning target to attack

Introduction to Penetration Testing:

- Internet foot-printing
- Sniffer operation
- Sniffer program
- Sniffer detection
- Protecting against sniffer

Encryption and Password Cracking:

- Symmetric and asymmetric key encryption
- Descriptions of popular ciphers
- Attack on passwords
- Password crackers

Denial of Service Attack:

- To demonstrate the causes of DoS attack
- To demonstrate different types of DoS attacks

Text Books: 1. COMPUTER SECURITY AND PENETRATION TESTING by ALFRED BASTA, NADINE BASTA AND MARY BRROWN, CENGAGE LEARNING

References:

References:

1. ANALYZING COMPUTER SECURITY by CHARLES P. PFLEEGER, SHARI LAWRENCE PFLEEGER, Pearson Education India