

Cyber Security Workshop Module

- 1. Introduction to Ethical Hacking**
 - a. What is Ethical Hacking?
 - b. Who are Hackers?
 - c. Types of Hackers
 - d. Various Hacking Attacks Overview
 - i. SQLi (SQL Injection)
 - ii. XSS (Cross Site Scripting)
 - iii. System Hacking Attacks
 1. Offline Attacks
 2. Online Attacks
 - iv. Wireless Hacking
 - v. Metasploit
 - vi. RAT
 - e. What is Hacktivism
 - f. Case Study of Hacking Crimes
 - g. Opportunities in the field of Cyber Security Domain

- 2. Basics of Networking & Internet**
 - a. What is IP?
 - b. Classes of IP
 - i. Public & Private IP
 - ii. Dynamic & Static IP
 - c. Introduction to CMD
 - i. Ping Command
 - ii. Tracing Route
 - iii. Address Resolution Protocol (ARP)
 - iv. TTL (time to live)
 - v. Network Statistics
 - d. Introduction to DHCP
 - e. Introduction to Virtual Machine
 - i. NAT and Bridge Mode
 - ii. Installing Operating System over Virtual Machine
 - f. What are port numbers in computing

3. System Hacking

- a. Information at Hand Before System Hacking Stage
- b. System Hacking: Goals
- c. Hacking Methodology
- d. System Hacking Steps
- e. Cracking Passwords
- f. Password Cracking using Kali Linux
- g. Password Cracking using OPHCrack
- h. Offline Password Cracker
- i. Trinity Rescue Kit
- j. Konboot
- k. Any Linux Password Cracking
- l. Escalating Privileges
- m. Keyloggers
- n. Executing Applications
- o. Covering Tracks
- p. Countermeasures

4- Introduction to Digital Forensics

- a. What is Digital Forensics
- b. File Carving

5- Email and Social Networking Sites Account Hacking

- a. What is Email?
- b. How Email Works?
- c. Make your machine SMTP Server
- d. Email Spoofing
- e. Email Bombing
- f. Phishing
 - i. What is Phishing?
 - ii. Facebook, Gmail, Twitter, Yahoo account hacking using phishing
 - iii. Phishing using Kali Linux
 - iv. Desktop Phishing
- g. Countermeasures

6- Website Hacking

- a. SQL Injection
 - i. Normal SQLi
 - ii. Query based SQLi
- b. XSS Attack
- c. Web Ripping
 - i. HTTrack
 - ii. BlackWidow
- d. Web Backdoor Shell

e. Countermeasures

7- Denial of Service (DoS) Attack

- a. DHCP DoS Attack
 - i. Dhcp Starvation Attack
- b. Introduction to DDoS (Distributed Denial of Service) Attack
 - i. BanglaDoS
- c. Countermeasures

8- Virus, Trojans and Backdoors

- a. What is Virus?
- b. Types of Viruses
- c. Difference between Virus and Worm
- d. Making Virus using batch programming
 - i. App Bomber
 - ii. System Crasher
 - iii. Shutdown virus
- e. What is Trojan?
- f. Types of Trojan
 - i. Direct Connection
 - ii. Reverse Connection
- g. Injection system with Beast Trojan
- h. Making backdoors and accessing the system
- i. Countermeasures

9- Social Engineering

- a. Shoulder Surfing
- b. SET in Kali Linux
- c. Mail Attachments
- d. Website haking