



## Course Content of Cyber Security

### Session 1:

#### Being a Hacker

- Who is a Hacker?
- Why People Hack?
- What people Hack?
- What is information?
- How much worth my Information is?
- Types of Hackers
- Approach of a Hacker
- Steps in Hacking

#### Basics of Internet, Networking & Hacking

- What is a Network?
- Types of network – LANs, WANs & WLANs
- What is Internet?
- History of the Internet
- Basic Structure
- What is a Server?
- What is an IP Address?
- What is a domain name?
- What is a browser?
- Client-Server Relationship Model
- What is a port?

#### Information gathering by Hackers (How to protect your information?) (Practical)

- How Hackers gather information about us?
- Does everybody know about you?
- Where do they get it?
  - Whois access (Demo)



- Maltego (Demo)
- 123people.com (Demo)
- Ip scanning (Demo)
- Port scanning (Demo)
- Network scanning & its tools (Demo)
- What is Google and how does it work?
- Google Hacking (Demo)
- Accessing Public Cameras
- Basic hacks (Demo)
- How can Google hacking help an Ethical Hacker? (Demo)

## Session 2:

### Desktop/PC Security, Antivirus & IDS (Practical)

- Types of viruses
- What are anti viruses?
- How they detect a virus?
- Which Antivirus is best?
- What is firewall?
- What are Trojan & Spywares?

### Web Security

- Fundamentals of Web Security
  - How the web really works
  - Rattling the Locks
  - Looking through Tinted Windows – SSL
  - Having someone else do it for you – Proxies
- Web Vulnerabilities
  - Scripting Languages
  - Top Ten Most Critical Web Application Vulnerabilities
  - Security Guidelines for Building Secure Web Applications
- HTML Basics – A brief introduction



- Reading HTML
- Viewing HTML at its Source
- Links
- Proxy methods for Web Application Manipulation

## Session 3:

### Email Security

- Introduction
- How E-mail Works
- Safe E-mail Usage
  - Spam, Phishing and Fraud
  - HTML E-Mail
  - Attachment Security
  - Email Forging

### Mobile Security

- Introduction
- Android Phone Security
- What Apps can do to harm you?
- Dos & Donts for Mobile Phones

### Wireless Security

- What is WiFi?
- What are public WiFi?
- Can someone sniff our passwords?
- How to protect our self from WiFi attacks?

## Session 4:

### Passwords Security

- Introduction
- History of Passwords
- Types of Passwords



- Strings of Characters
- Strings of Characters plus a token
- Biometric Passwords
- Build a Strong Password
- Password Encryption
- Password Cracking (Password Recovery)
- Protection from Password Cracking

## **Social Media Security**

- Introduction
- Types of Social Media
- Attacks on Social Media
- Social Engineering Attacks
- How to defend Facebook Account?

## **Cyber Abuse**

- Introduction
- What is cyber abuse?
- Laws against Cyber Abuse
- How to avoid cyber abuse