

ETHICAL HACKING & CYBER SECURITY

Sessions	Name of topics
	<p><u>CISSP</u></p> <p>Security and Risk Management</p> <ul style="list-style-type: none"> Understand and apply concepts of Confidentiality, Integrity and Availability Apply Security Governance Principles through compliance Understand Legal and Regulatory Issues that Pertain to Information Security in a Global Context Develop and Implement Documented Security Policy, Standards, Procedures, and Guidelines Understand Business Continuity Requirements Contribute to Personnel Security Policies Understand and Apply Risk Management Concepts Understand and Apply Threat Modelling Integrate Security Risk Considerations into Acquisitions Strategy and Practice Establish and Manage Security Education Training, and Awareness
	<p>Security Architecture Engineering</p> <ul style="list-style-type: none"> Understand the engineering life cycle and apply security design principles Understand the fundamental concepts of security models Select controls based upon systems security requirements Understand the security capabilities of information systems Assess and mitigate the vulnerabilities of security architectures, designs, and solution elements Assess and mitigate the vulnerabilities in Web-based systems Assess and mitigate the vulnerabilities in Mobile systems Assess and mitigate the vulnerabilities in Embedded devices Apply cryptography Implement facility Security Controls, Wiring Closets/Intermediate distribution facility
	<p>Communication and Network Security</p> <ul style="list-style-type: none"> Apply Secure Design Principles in Network Architecture Securing Network Components Implement Secure Communication Channels according to design
	<p>Identity and Access Management (IAM)</p> <ul style="list-style-type: none"> Control Physical and Logical Access to Assets Manage Identification and Authentication of People and Devices Integrate Identity as a Service (IDaaS) Integrate Third-Party Identity Services Implement and Manage Authorisation Mechanisms

	Prevent or Mitigate Access Control Attacks Manage the Identity and Access Provisioning Life Cycle
	Audit The Process of Auditing Information Systems Governance and Management of IT Protection of Information Assets
	Security Assessment and Testing Design and Validate Assessment, Test and Audit Strategies Conduct Security Control Testing Collect Security Process Data Conduct or Facilitate Security Audits
1	Network concept <ul style="list-style-type: none"> • What is Network? • Network Topology • Internet working • Domain Name • Server • Ports and Types of Ports • Ethernet • Infrastructure and Design • Policies and Best Practices • Internet Protocol • IPv4 • IPv6 • Introduction to Web Browser
2	Ethical hacking & cyber security & overview <ul style="list-style-type: none"> • Cybercrime scenario in India and worldwide • Short description about hacking vs. Ethical hacking • Skill Profile of a Hacker • Some Famous Hackers and Groups • Advantage and Disadvantage of Cyber world • Types of Hackers • Skills required for an Ethical Hacker
3	Overview of cyber law <ul style="list-style-type: none"> • Introduction to Cyber Law • Cyber Laws Indian • Technical Aspect of Indian Cyber Law

	<ul style="list-style-type: none"> • IT ACT 2000 & 2008 • Internet Crimes and Frauds • Cyber Law Cases in India • Organization Under Cyber Laws • Advantages Of Cyber Laws
	Computer virtualization technology & lab setup <ul style="list-style-type: none"> • Need & Advantage Of Virtualization • Requirements for virtualization • Creating virtual machines and optimization performance • Installing OS (Windows and Linux) On Virtual Machines • Virtual networking what and why?
	Information gathering <ul style="list-style-type: none"> • What Is Information Gathering & Why Hackers Need This? • Types of Information Gathering • Information Gathering Using Websites • Information Gathering Using Software • Search Engines- Smart Way of Information Gathering • Ping • Who-is Lookup • People Search • DNS Lookup • Benefits of Foot printing
	Windows, Linux hacking & security <ul style="list-style-type: none"> • Introduction Windows Security • User Accounts Security, Attacks and countermeasure • Hacking into System by Changing Passwords • Getting Access to System by Elevating Privileges • Finding Out the Passwords of Windows • Bypassing the Windows Security
	Data recovery
	Steganography and cryptography
	Cloud <ul style="list-style-type: none"> • Cloud Computing Concepts • Cloud Reference Architecture • Security Concepts relevant to Cloud Computing • The Design Principles of Secure Cloud Computing • Trusted Cloud Services
	Fake calling & SMS
	Mobile phone

	<ul style="list-style-type: none"> • Use of mobile in hacking • Hidden function of mobile • Backdoor Attack
	<p>Denial of service attack (DOS – attack)</p> <ul style="list-style-type: none"> • What is a Denial of Service Attack? • What is Distributed Denial of Service Attacks? • DoS Attack Techniques • Detail Study on DoS Attack Tools
	<p>Hacking by viruses, Trojans, key loggers</p> <ul style="list-style-type: none"> • What is viruses? • What is Trojan? • Trojans/viruses Attack • Different way a Trojan Can Get Into A System • How Attacker Bypass Your Antivirus By Trojans
	<p>VPN technology</p> <ul style="list-style-type: none"> • Proxy and Types of Proxies • Why Hackers Use Proxy? • How to Hide IP Address While Chatting • How to Open Block Website in College/Companies • Advantage and Disadvantage of Proxy • What Is VPN? • Why We Use VPN • Advantage & Disadvantage of VPN • Free VPN
	<p>Google hacking and Google hacking database</p> <ul style="list-style-type: none"> • Introduction and Working of Search Engines • List of Common Search Engines on Web • Comparing and Choosing Best Search Engine • Google for Hacking Search Engines • Finding Admin Pages and Weakness in Site • Security against Search Engine Hacking
	<p>E-mail/social sites hacking and security issues</p> <ul style="list-style-type: none"> • Analysis Email Attacks (Live Demo) Manually & Automatic • Cookies Stealing (Session Hijacking) of All Big Mail Servers • Phishing Attacks (Normal & Advanced) • Analyzing Fake & Real Profiles & Email Accounts • Fake Mailing Attack • Email & Fake Profile Tracing • Facebook Phishing Attacks

	Facebook Account security with Email & SMS Notification.
	SQL Injection <ul style="list-style-type: none"> • SQL Injection Attacks • How Web Applications Work? • SQL Injection Detection • Types of SQL Injection • How to Defend Against SQL Injection Attacks..??
	Wireless hacking <ul style="list-style-type: none"> • Wireless Standards • Common Vulnerabilities in Wireless Devices • Encryption Standards Used in Wi-Fi • WEP Cracking • WPA/WPA2 Cracking • WPS Cracking Solve Security challenges
	Linux training <ul style="list-style-type: none"> • What is Linux & how to operate this OS • Use of Linux • Function of Linux • Terminal function • Site Cloning • Network scanning • Security • Wi-Fi jammer • Armitage • NMAP • many more hacking
	Security <ul style="list-style-type: none"> • Facebook/mail Account Security • Website Security • Wi-Fi Security • WhatsApp Security Android phone Security
	Cyber crime case study <ul style="list-style-type: none"> • Introduction to cyber crime and investigation • Types of cyber crimes

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| | <ul style="list-style-type: none">• Investigation Rules
....many more case study |
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