

# CYBER SECURITY



**Cyber Lab  
Access for  
Hands-on Training**



**Direct Training  
from Top  
CISOs**



**Video Access  
through LMS**

## Offered Programs

 **TRAINING**  
(Offline / Online)


1. Any Graduate
2. By Realtime Practitioners
3. Realtime Scenario Projects
4. LMS Access for 6 Months
5. Resume Preparation
6. Doubts Clarification
7. 1 Mock Interview
8. Interview Questions
9. Placement Referral Support
10. Course Completion Certificate

**Price**  
40K+18% GST

 **(JOIP) Intensive**

1. Full Day Training
2. LMS Access for 8 Months
3. Soft Skills & Aptitude Classes
4. Monthly Placement Screening Tests
5. Assignments / Mock Tests
6. Interview Readiness Sessions
7. Mega Drive Selection Mandatory For Placements
8. Placement Assistance for 12months
9. Realtime Scenario Projects
10. By Realtime Practitioners
11. weekly 1 mock interview

**Price**  
50K + 18% GST

 **(JOIP) Intensive & Internship**

1. Internship @IT Company-Ramana Soft
2. By Realtime Practitioners
3. No Mega Drive Selection
4. 3Hrs.- Internship/3Hrs.-Training
5. Interview Questions & Readiness Sessions
6. Monthly Placement Screening Test
7. Personalised Assistance for Complex Tasks
8. 6 - 8 Hrs Daily
9. LMS Access Upto 1Year
10. 100% Placement Assistance - Until you're Hired
11. Internship Completion Certificate-6 Months from Ramana Soft or Client
12. Realtime Scenario Projects
13. Soft Skills & Aptitude Classes

**Price**  
70K + 18% GST

## Introduction to Cyber security

- ▶ Evolution of Cyber security
- ▶ Cyber security & Situational Awareness
- ▶ The Cyber security Skills Gap
- ▶ Difference between Information Security & Cyber security
- ▶ Cyber security Objectives
- ▶ Cyber security Roles and Career Paths



## Network Fundamentals (Prerequisites)

- ▶ Evolution of Cyber security
- ▶ Cyber security & Situational Awareness
- ▶ The Cyber security Skills Gap
- ▶ Difference between Information Security & Cyber security
- ▶ Cyber security Objectives
- ▶ Cyber security Roles and Career Paths
- ▶ Infrastructure Terminology
- ▶ Security-Focused Network Design
- ▶ Network Topology & Architecture
- ▶ OSI Layers & TCP/IP Model
- ▶ IPv4 & IPv6 Addressing
- ▶ Essential Ports & Protocols
- ▶ Firewalls & Intrusion Prevention Systems
- ▶ VPNs and VPN Concentrators
- ▶ Intrusion Detection & Prevention Systems
- ▶ Proxy Servers & Load Balancers
- ▶ Network Access Control (NAC) & Zero Trust Architecture
- ▶ Secure Mail Gateways



## **Ethical Hacking Content**

- ▶ Introduction to CyberSecurity
- ▶ Introduction to Ethical hacking
- ▶ Computer & Networking Basics
- ▶ Lab setup for Virtual Machines
- ▶ Foot Print/Information Gathering
- ▶ Scanning
- ▶ Vulnerability Analysis
- ▶ Sniffing & Man-In-Middle
- ▶ System Hacking
- ▶ Metasploit Attacks.
- ▶ Malware Threats
- ▶ Phishing Attacks
- ▶ Social Engineering Attacks
- ▶ Hacking webserver & Web Applications
- ▶ SQL Injection
- ▶ Wireless Attacks
- ▶ Firewalls
- ▶ IDS/IPS
- ▶ Honeypots
- ▶ Cloud Computing
- ▶ IOT Hacking
- ▶ Cryptography
- ▶ Penetration Testing
- ▶ Identity Theft
- ▶ Security Compliances
- ▶ Steganography
- ▶ Risk Management
- ▶ Mobile Hacking
- ▶ DOS/DDOS Attacks
- ▶ Proxies & VPN's
- ▶ Computer Forensic
- ▶ OSIntframework
- ▶ Information Gathering with Maltego Tool
- ▶ DNS Spoofing
- ▶ MAC Spoofing
- ▶ Web Application with Nessus Vulnerability Scanner
- ▶ Kon Boot for password Breaking
- ▶ Countermeasures for Local Systems

## **Bugbounty**

- ▶ Introduction to Bug Bounty
- ▶ Basic Terminology on Bug Bounty
- ▶ Information Gathering
- ▶ Lab setup for Bug Bounty
- ▶ Installation of Burp Suite Tool
- ▶ Bug Bounty Platforms
- ▶ Report Writing for Bugs
- ▶ Vulnerability Scanner Tools
- ▶ Web Application Vulnerabilities
- ▶ Cross Site Scripting
- ▶ Host Header Injection
- ▶ URL Redirection Attack
- ▶ Parameter Tampering
- ▶ File Upload Vulnerability
- ▶ SQL Injection
- ▶ Bypass Authentication
- ▶ Sensitive Information Disclosure Vulnerability
- ▶ CSRF Attack Vulnerability
- ▶ Word Press Sensitive information disclosure
- ▶ XML Vulnerability in Word Press Vulnerability
- ▶ Missing SPF Records vulnerability
- ▶ OTP Bypass Technique Vulnerability
- ▶ IDOR Vulnerability
- ▶ No rate Limit Vulnerability
- ▶ Session Hijacking Vulnerability
- ▶ Long Password Attack Vulnerability

## Security Operations Center (SOC)

- ▶ SOC Overview
- ▶ SOC Team Structure
- ▶ Tier 1 Responsibilities
- ▶ Tier 2 Responsibilities
- ▶ Tier 3 Responsibilities
- ▶ SOC Workflow and Escalation Path
- ▶ Alert Lifecycle Stages
- ▶ Incident Response Phases
- ▶ Types of Alerts Handled in SOC
- ▶ Daily SOC Monitoring Activities
- ▶ KPIs and Metrics for SOC
- ▶ Log Collection Strategy
- ▶ Log Parsing and Normalization
- ▶ Key SOC Log Sources
- ▶ Firewall Logs
- ▶ IDS/IPS Logs
- ▶ DNS Logs
- ▶ Endpoint Logs (Sysmon/EDR)
- ▶ Active Directory Logs
- ▶ Cloud Logs (CloudTrail, Azure Activity)
- ▶ Use Case Design in SIEM
- ▶ Rule Writing – SPL (Splunk), AQL (Qradar)
- ▶ MITRE ATT&CK Mapping to Alerts
- ▶ Threat Hunting Basics
- ▶ Alert Enrichment Techniques
- ▶ Alert Suppression & False Positive Handling
- ▶ Ticketing Systems (ServiceNow, JIRA) Integration
- ▶ Shift Handover Protocols

## SIEM and EDR Focus

- ▶ Introduction to SIEM
- ▶ Overview of Splunk Architecture
- ▶ Splunk Ingestion and Indexing
- ▶ Writing SPL Queries
- ▶ Splunk Dashboards and Alerts
- ▶ QRadar Architecture and Flow Collection
- ▶ QRadar Rule Creation using CRE

- ▶ AQL Querying in Qradar
- ▶ Introduction to EDR
- ▶ SentinelOne Architecture
- ▶ SentinelOne Agent Capabilities
- ▶ Remote Response Actions (Kill, Quarantine, Rollback)

## Malware Analysis

- ▶ Introduction to Malware Analysis
- ▶ Malware Categories
  - a. Virus
  - b. Worm
  - c. Trojan
  - d. Ransomware
  - e. Spyware
  - f. Rootkit
  - g. Fileless Malware
- ▶ Malware Behavior and Infection Chain
- ▶ Static Analysis Fundamentals
- ▶ File Header and Metadata Check
- ▶ String Extraction (strings, FLOSS)
- ▶ PE Header Inspection
- ▶ Hashing (MD5, SHA256) and Use Cases
- ▶ Dynamic Analysis Overview
- ▶ Sandbox Analysis (Any.run, Cuckoo)
- ▶ Tools for Monitoring Behavior
  - a. ProcMon
  - b. RegShot
  - c. Wireshark
  - d. TCPView
- ▶ Reverse Engineering Introduction
- ▶ Disassemblers (Ghidra, IDA Free)
- ▶ Debuggers (x64dbg, OllyDbg)
- ▶ Packers and Obfuscation
- ▶ IOC Extraction Process
- ▶ Types of IOCs
- ▶ File Hashes
- ▶ Registry Keys
- ▶ IPs and Domains
- ▶ Filenames

## Email Security

- ▶ Overview of Email-Based Threats
- ▶ Anatomy of a Phishing Email
- ▶ Spear Phishing vs Generic Phishing
- ▶ Business Email Compromise (BEC)
- ▶ Malware Delivery via Email
- ▶ Spoofing and Lookalike Domains
- ▶ Email Header Components
- ▶ SPF Record Validation
- ▶ DKIM Signature Verification
- ▶ DMARC Policy Enforcement
- ▶ Email Flow and Received Headers
- ▶ Tools for Email Security
  - a. Microsoft Defender for O365
  - b. Cisco ESA
  - c. Proofpoint
  - d. Mimecast
- ▶ Email Sandbox Solutions
- ▶ SOC Response to Phishing
- ▶ IOC Search in Mailboxes
- ▶ Quarantining and Purging Emails
- ▶ User Awareness and Reporting Channels

## Threat Intelligence

- ▶ Threat Intelligence Fundamentals
- ▶ Intelligence Lifecycle Stages
- ▶ Strategic vs Tactical vs Operational vs Technical TI
- ▶ IOC Formats (IP, Hash, URL, Domain)
- ▶ TI Sources and Feeds
  - a. VirusTotal
  - b. AlienVault OTX
  - c. Recorded Future
  - d. Shodan
  - e. URLScan.io
- ▶ MITRE ATT&CK Overview
- ▶ IOC Enrichment in SIEM

## Digital Forensics (Basic)

- ▶ Introduction to Digital Forensics
- ▶ Forensics in Incident Response
- ▶ Evidence Identification
- ▶ Disk Imaging with FTK Imager
- ▶ File Recovery and Analysis
- ▶ Windows Registry Artifact Locations
- ▶ Browser History and Cache Inspection
- ▶ Event Log Collection
- ▶ Timeline Analysis Basics
- ▶ Memory Analysis using Volatility
- ▶ Chain of Custody Requirements
- ▶ Legal Considerations for Evidence
- ▶ Role of Forensics in Root Cause Analysis

## Cloud Security

- ▶ Cloud Security Fundamentals
- ▶ Shared Responsibility Model
- ▶ Cloud Infrastructure Threats
- ▶ Misconfigured Storage Buckets (e.g., S3)
- ▶ Cloud Resource Exploitation
- ▶ Unmonitored API Calls and Access Keys
- ▶ Credential Theft from Repositories
- ▶ Cloud Identity Attacks
- ▶ Lateral Movement in Cloud Environments
- ▶ Lack of Visibility and Logging

## Mobile Security – Threats Only

- ▶ Cloud Security Fundamentals
- ▶ Shared Responsibility Model
- ▶ Cloud Infrastructure Threats
- ▶ Misconfigured Storage Buckets (e.g., S3)
- ▶ Cloud Resource Exploitation
- ▶ Unmonitored API Calls and Access Keys
- ▶ Credential Theft from Repositories
- ▶ Cloud Identity Attacks
- ▶ Lateral Movement in Cloud Environments
- ▶ Lack of Visibility and Logging

## Internship Topics

### Penetration Testing Internships

- ▶ Hands-on testing of networks, web applications, APIs
- ▶ Working with Metasploit, Burp Suite, Nmap, and Kali Linux
- ▶ Companies offering internships: Security firms, ethical hacking teams, and bug bounty programs

### Security Operations Center (SOC) Internships

- ▶ Real-time security monitoring using SIEM tools (Splunk, QRadar, Devo, Elastic)
- ▶ Log analysis, threat detection, and incident escalation
- ▶ Exposure to MITRE ATT&CK Framework and cyber defense strategies

### Malware & Phishing Email Analysis Internships

- ▶ Analyzing email headers & identifying phishing attempts
- ▶ Reverse engineering malware and working in sandbox environments
- ▶ Exposure to tools like Virus Total, Any.Run, Hybrid Analysis

### Threat Intelligence & Threat Hunting Internships

- ▶ Investigating Indicators of Compromise (IoCs)
- ▶ Using Threat Intelligence Platforms (TIPs) such as MISP and OpenCTI
- ▶ Monitoring cybercriminal activities on the dark web

## Recommended Certifications for Entry-Level Roles

- ▶ CompTIA Security+ (Foundational security knowledge)
- ▶ Certified SOC Analyst (CSA) (For SOC-related roles)
- ▶ Certified Ethical Hacker (CEH) (For penetration testing roles)
- ▶ GIAC Security Essentials (GSEC) (General cyber security skills)
- ▶ Cyber Threat Intelligence Analyst (CTIA) (For threat intelligence roles)



## Career Opportunities after this Course

- ▶ SOC Analyst (L1/L2)
- ▶ Threat Intelligence Analyst
- ▶ Incident Responder
- ▶ Cyber security Analyst
- ▶ SIEM Engineer
- ▶ SOC Analyst (Tier 1, Tier 2, Tier 3)
- ▶ Threat Hunter
- ▶ Security Operations Engineer
- ▶ Incident Responder
- ▶ Cyber Threat Intelligence Analyst
- ▶ Network Security Engineer
- ▶ Firewall & Perimeter Security Administrator
- ▶ SOC Analyst (Network Security Focus)
- ▶ Threat Detection Engineer
- ▶ Cloud Network Security Engineer
- ▶ Penetration Tester (Web, Network, Wireless, Cloud)
- ▶ Red Team Operator / Adversary Emulation Specialist
- ▶ Bug Bounty Hunter & Security Researcher
- ▶ Offensive Security Consultant
- ▶ Exploit Developer & Malware Analyst
- ▶ Career Opportunities after this Course
- ▶ Cloud Security Engineer
- ▶ Cloud Security Architect
- ▶ DevSecOps Engineer
- ▶ Container Security Specialist
- ▶ Kubernetes Security Engineer
- ▶ Cloud Compliance & Risk Analyst





#### Our Students Are Placed In

Our Students Are Placed In	 TCS TATA CONSULTANCY SERVICES	 vsoft legality at work	 Cognizant	 Microsoft	 ENVISION	 SUNSEAZ Technologies Pvt Ltd	 wipro	 VSOFT CONSULTANTS Software & IT Solutions	 amazon
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