

INTRODUCTION TO CYBER SECURITY

GUIDE TO THE WORLD OF CYBER SECURITY

PAVISION INNOVATIONS



CYBER SECURITY
BROCHURE

About Pavision Innovation

At Pavision Innovations, we are more than just a training platform – we are a community of innovators in education. Our cybersecurity program equips you with the knowledge and skills to protect critical systems and networks in today's ever-evolving cyber landscape.

Why Study Cybersecurity?

In today's digital world, cyber threats are growing at an unprecedented rate. Organizations require skilled cybersecurity professionals to protect their data, networks, and infrastructure. With increasing demand for cybersecurity expertise, now is the time to build a career in this high-growth field.

Why Pavision Innovations ?

- Top-Notch Training: Learn from industry experts.
- Flexible Learning Modes: Self-paced, live, and blended.
- Career Support: Job guarantee programs, resume building, and interview preparation.
- Global Recognition: Courses aligned with industry certification standards.

Course Outline

Module 1: Introduction to Cybersecurity

- Cybersecurity principles and the threat landscape.
- Understanding types of attacks (malware, phishing, etc.).

Module 2: Network Security

- Firewalls, VPNs, and Intrusion Detection Systems (IDS).
- Securing wireless and wired networks.

Module 3: Cryptography

- Encryption techniques, digital signatures, and certificates.
- Public Key Infrastructure (PKI).

Module 4: Ethical Hacking and Penetration Testing

- Learning ethical hacking tools and techniques.
- Performing vulnerability assessments and penetration tests.

Module 5: Incident Response and Recovery

- Cyber incident handling, digital forensics, and disaster recovery.
- Legal and regulatory issues in cybersecurity.

Module 6: Advanced Cybersecurity

- Cloud security, IoT security, and emerging threats.
- AI and machine learning in cybersecurity.

Tools, Languages, Platforms



Python



SQL



Javascript



Owasp



Burpsuite



NMAP



Metasploit



Testfire.net

Sample Projects

These are sample projects only. Unique capstone projects will be discussed in the live class

1. Password Strength Analyzer

- Skills Involved: Scripting, password policies, regular expressions.
- Description: Students can create a program that checks the strength of user-generated passwords, considering factors like length, complexity, and use of special characters. The program should provide feedback on how to strengthen weak passwords.

2. Setting Up a Firewall (Using pfSense)

- Skills Involved: Network security, firewall configuration, packet filtering.
- Description: Students can install and configure an open-source firewall (like pfSense) on a virtual machine or physical machine, setting up rules to block or allow specific network traffic.

3. Simple Vulnerability Scanner

- Skills Involved: Python scripting, network scanning, basic vulnerability assessment.
- Description: Students can write a Python script to scan for open ports and check for known vulnerabilities (e.g., using libraries like socket or nmap). The scanner can provide a basic report on any identified vulnerabilities.

4. Phishing Email Simulation

- Skills Involved: Social engineering, email security, phishing techniques.
- Description: Students can create a controlled phishing simulation to test their peers' or a system's awareness of phishing attacks. This project will help them understand phishing techniques and how to recognize and prevent them.

5. Data Encryption and Decryption Tool

- Skills Involved: Cryptography, encryption algorithms (e.g., AES, RSA).
- Description: Students can develop a tool to encrypt and decrypt messages or files using basic encryption techniques. They can explore different algorithms and compare their efficiency and security levels.

6. Brute Force Attack Simulation

- Skills Involved: Python/JavaScript scripting, attack mitigation, password security.
- Description: Build a script that performs a brute force attack on a login system (within a controlled environment). This project can also include building defense mechanisms to prevent brute force attacks, like limiting login attempts.

Career Opportunities

By completing this program, you can explore roles such as:

- Cybersecurity Analyst
- Network Security Engineer
- Ethical Hacker
- Digital Forensics Expert
- Security Consultant
- Information Security Manager

Hiring Companies:

Our graduates have found opportunities at top companies like:

- FireEye (now Trellix)
- CrowdStrike
- Fortinet
- Symantec (part of Broadcom)
- Check Point Software Technologies
- McAfee
- Tenable

Certificates



Assured Interviews

As part of our placement support, we provide assured interview opportunities with leading companies in your field. Our dedicated placement team works tirelessly to connect you with the right employers based on your skills and interests.

The Course and Curriculum is designed by Mentors from



Get Started Today!

Contact Us:
Ready to take your career to the next level?

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and how we can help you achieve your career goals.

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