ITSOLERA
PVT LTD

1 LEARN

2 CERTIFY

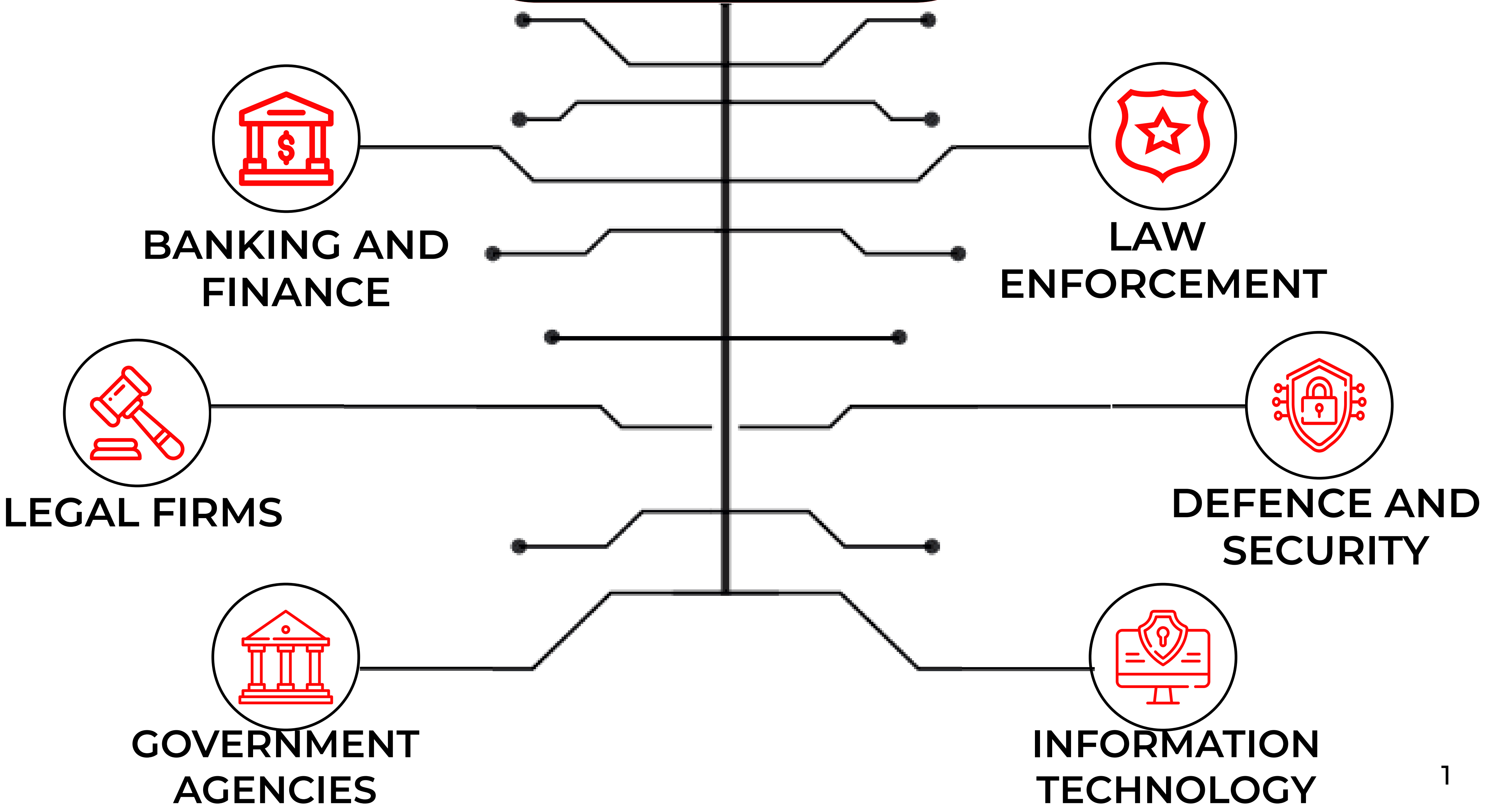
3 ENGAGE

4 COMPETE

CYBER SECURITY

Become a Cyber Security Expert in three months

CYBER SECURITY PROFESSIONALS



BANKING AND FINANCE

LAW ENFORCEMENT

LEGAL FIRMS

DEFENCE AND SECURITY

GOVERNMENT AGENCIES

INFORMATION TECHNOLOGY

COURSE OUTLINE

Module 01 | Introduction to Cybersecurity

Module 02 | Linux Administration

Module 03 | Ethical Hacking Basics & OSINT

Module 04 | Vulnerability Assessment and Exploitation

Module 05 | Web Application Security

Module 06 | Wireless and Mobile Security

Module 07 | Sniffing, DDoS, & Social Engineering

COURSE OUTLINE

Module 08	Firewalls, IDS/IPS & Cryptography
Module 09	Digital Forensics Fundamentals
Module 10	OS, Network, Web, Email, DarkWeb Forensics
Module 11	Security Information and Event Management (SIEM)
Module 12	Advanced SIEM and Threat Hunting

1st MONTH

Introduction to Cybersecurity

Module 01

Introduction to Cybersecurity

- Overview of cybersecurity concepts and importance
- Introduction to Linux operating system
- Overview of Kali Linux as a cybersecurity
- focused distribution
- Installation of Kali Linux (virtual machine or dual-boot setup)
- Basic Linux commands and navigation

Module 02

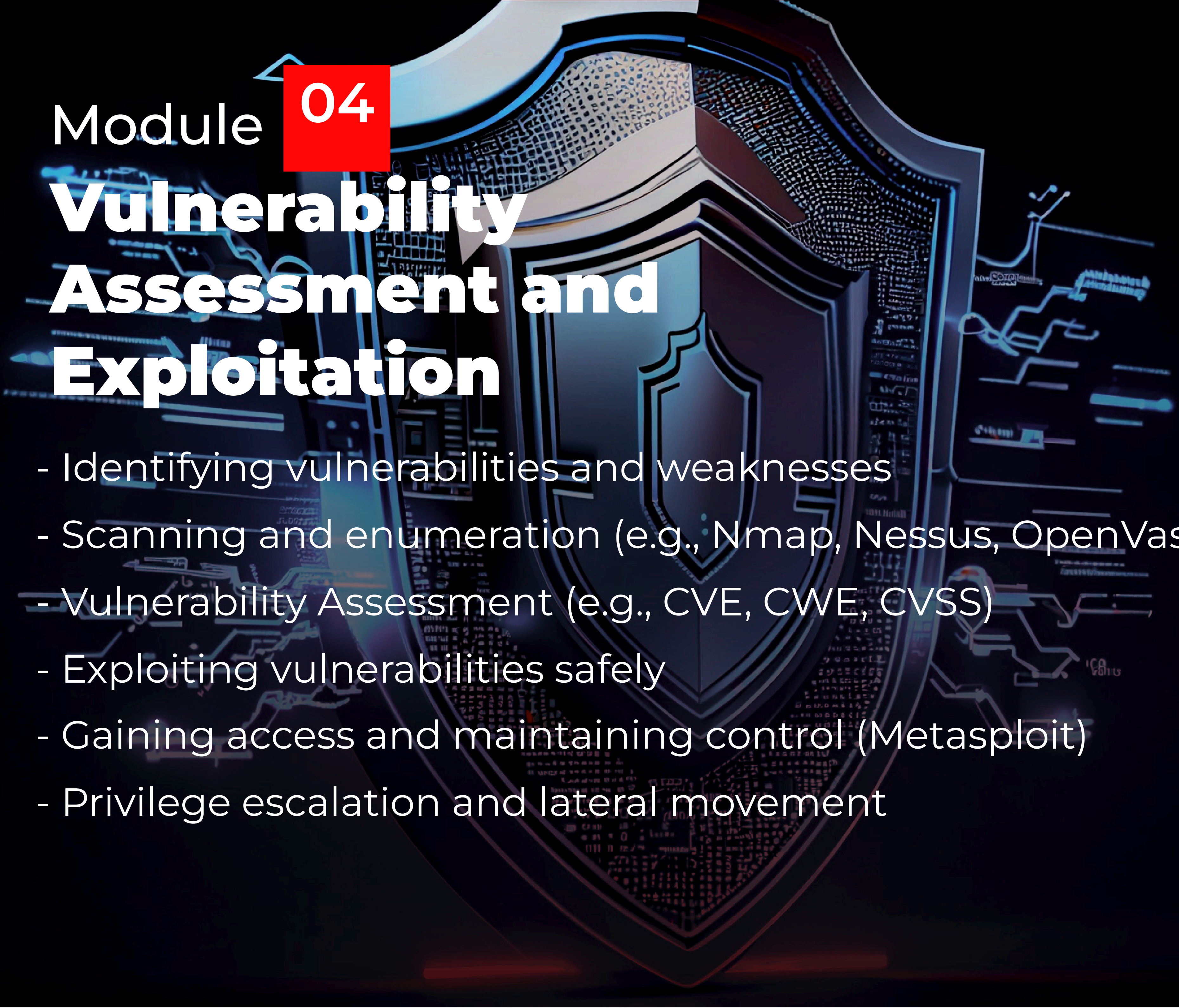
Linux Administration

- Networking Commands
- User and group management
- Files & Folders Permissions
- Services & Process Management
- Aliases & Password Recovery

Module 03

Ethical Hacking Basics & OSINT

- Understanding ethical hacking
- Legal and ethical considerations
- Different hacking phases and methodologies
- Information Gathering and Reconnaissance
- OSINT (Open Source Intelligence) techniques
- Reconnaissance tools (e.g., Nmap, Recon-ng)
- Footprinting and scanning



Module 04

Vulnerability Assessment and Exploitation

- Identifying vulnerabilities and weaknesses
- Scanning and enumeration (e.g., Nmap, Nessus, OpenVas)
- Vulnerability Assessment (e.g., CVE, CWE, CVSS)
- Exploiting vulnerabilities safely
- Gaining access and maintaining control (Metasploit)
- Privilege escalation and lateral movement

Monthly Practical Task 01

At the end of Month 1, students will be given a practical task to perform a basic security assessment of a simulated network using the skills they have learned, including setting up a basic Linux firewall, user management, and vulnerability scanning.

2nd MONTH

Advanced Cybersecurity Topics

Module 05

Web Application Security

- OWASP Top Ten vulnerabilities
- Web application penetration testing techniques
- Different scanning tools(ZAP, Burpsuite)

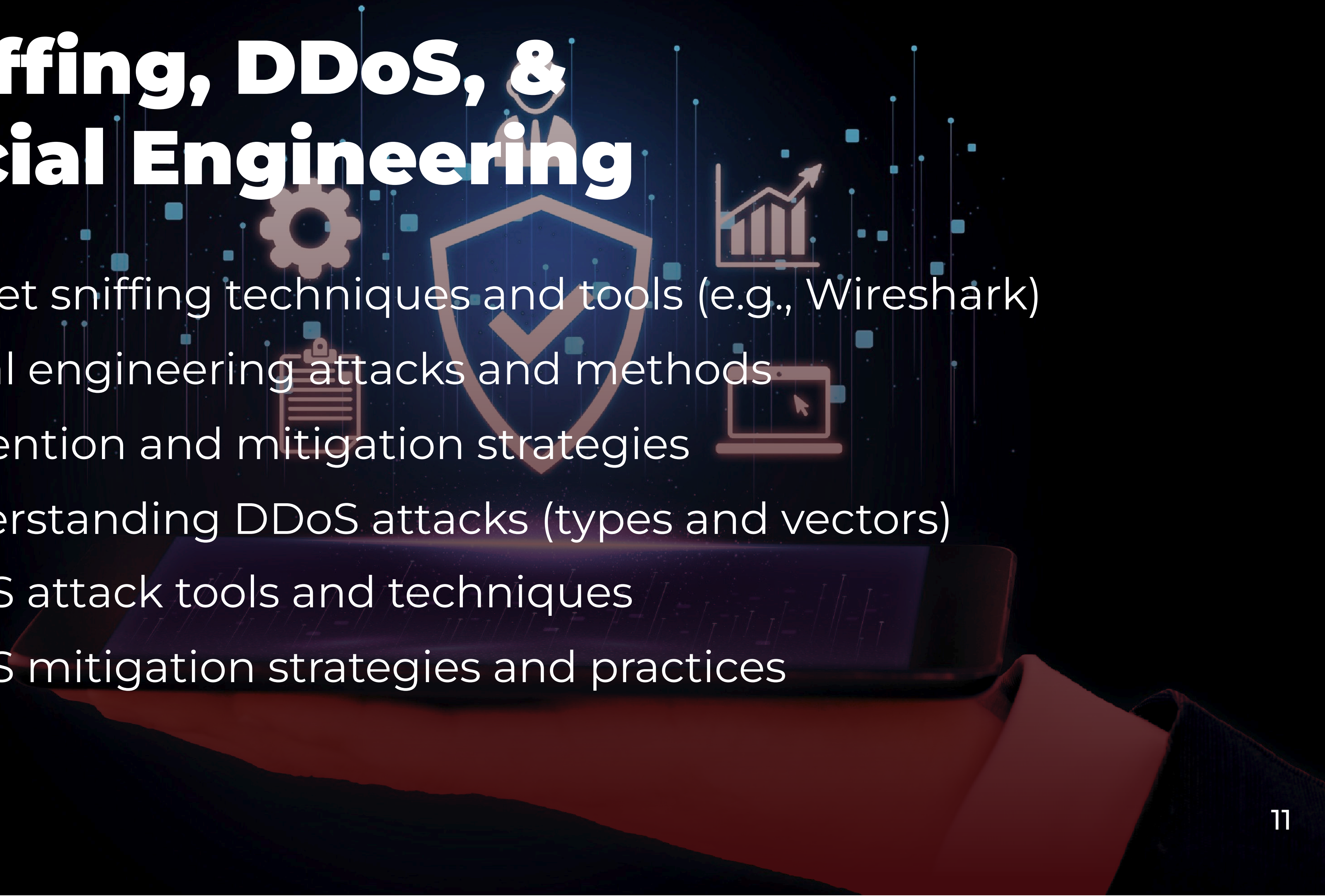
Module 06

Wireless and Mobile Security

- Wireless network vulnerabilities (e.g., WEP, WPA)
- Mobile application security testing
- Bluetooth and IoT security

Module 07

Sniffing, DDoS, & Social Engineering



- Packet sniffing techniques and tools (e.g., Wireshark)
- Social engineering attacks and methods
- Prevention and mitigation strategies
- Understanding DDoS attacks (types and vectors)
- DDoS attack tools and techniques
- DDoS mitigation strategies and practices

Module 08

Firewalls, IDS/IPS & Cryptography

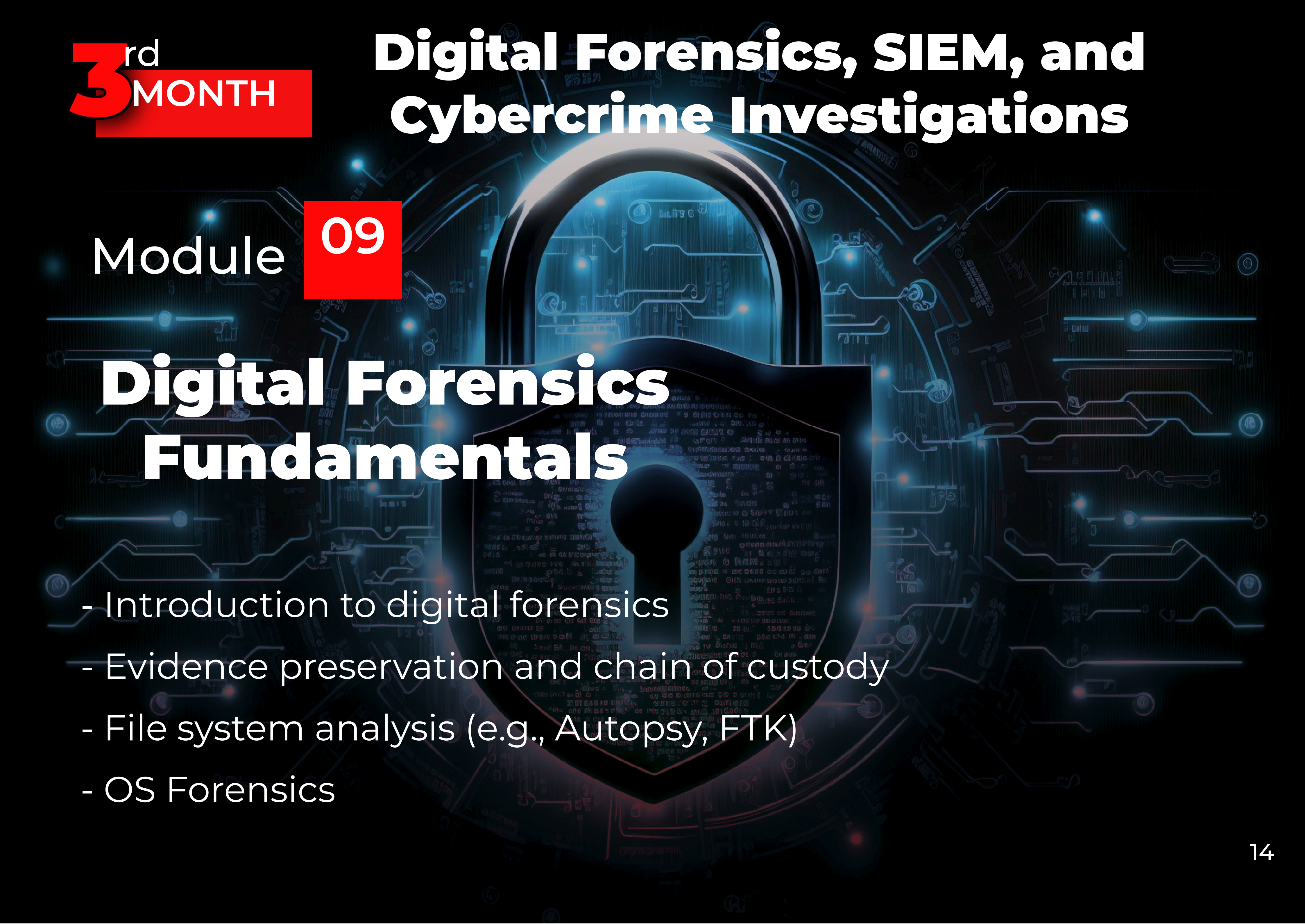
- Introduction to firewalls and firewall types
- Configuring and managing firewalls
- Intrusion Detection and Prevention Systems (IDS/IPS)
- Introduction to cryptography and encryption
- Cryptographic algorithms and protocols
- Securing communications and data encryption

Monthly Practical Task 02

At the end of Month 2, students will be tasked with designing and implementing a basic network security setup that includes a firewall, IDS/IPS, and encryption for secure communication.

3^{rd} MONTH

Digital Forensics, SIEM, and Cybercrime Investigations



Module 09

Digital Forensics Fundamentals

- Introduction to digital forensics
- Evidence preservation and chain of custody
- File system analysis (e.g., Autopsy, FTK)
- OS Forensics

Module 10

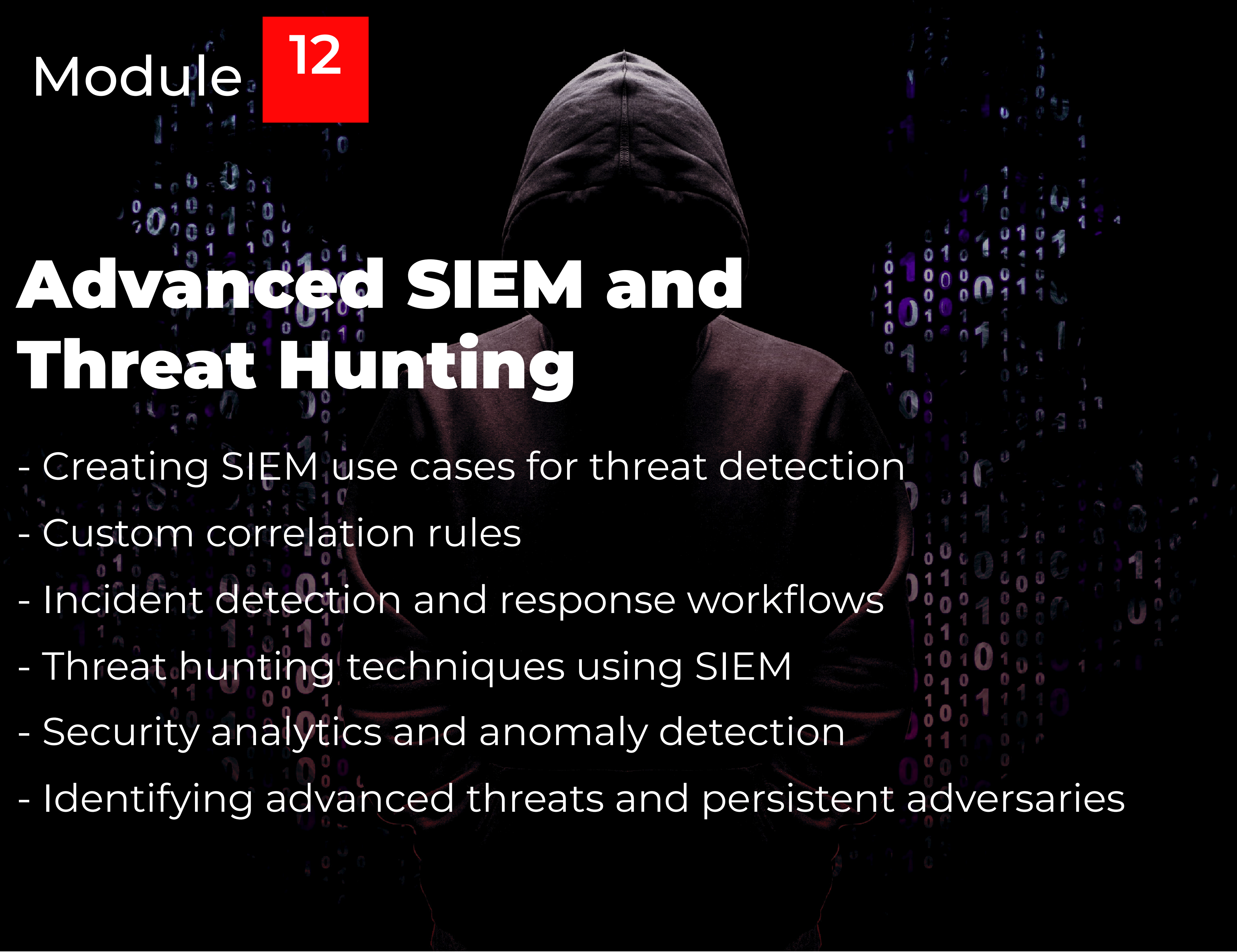
OS, Network, Web, Email, DarkWeb Forensics

- Capturing and analyzing network packets
- Wireshark and tcpdump
- Analyzing logs
- Identifying network-based attacks
- Types of malware
- Static and dynamic malware analysis
- Identifying malware indicators
- Reverse engineering techniques
- Email client forensics
- Recovering deleted emails
- Identifying illegal activities and threats
- Evidence collection and preservation

Module 11

Security Information and Event Management (SIEM)

- Understanding SIEM concepts
- Popular SIEM systems (e.g., Wazuh, Graylog)
- Configuration of Wazuh Indexer, Wazuh Dashboard, Graylog
- Log collection methods (syslog, agents, APIs)
- Parsing and normalizing logs
- Real-time log analysis



Module 12

Advanced SIEM and Threat Hunting

- Creating SIEM use cases for threat detection
- Custom correlation rules
- Incident detection and response workflows
- Threat hunting techniques using SIEM
- Security analytics and anomaly detection
- Identifying advanced threats and persistent adversaries

Monthly Practical Task 03

At the end of Month 3, students will be given a comprehensive digital forensics and incident response scenario. They will have to collect evidence, analyze logs, and use SIEM tools to investigate and report on a simulated cyber incident.

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