

Addon Programme: CYBER SECURITY AND ETHICAL HACKING
(Course Code: SSCADP25)

SYLLABUS

Module 1	No. of hours: 5
What is Cyber Security? Essential Terminologies, OSI Reference Model, TCP/IP Model, Types of Cyber Attacks, Threat categories, Attack vectors, Risk assessment, CIA Triad, Ethical Hacking Essentials, Stages of Hacking, Types of Hacker, Cyber Laws and Standards.	
Module 2	No. of hours: 5
Kali Linux Installation, Basic Overview with Kali Linux, Basic Linux commands, Directory commands, File commands. File access commands, Tor Browser, Dark Web, Deep Web, Surface web v/s Dark web. IP address, Types of IP address, MAC address, Types of MAC address, VPN, VPN-working and VPN protocols, Proxy Server, Spoofing.	
Module 3	No. of hours: 7
Information gathering, Types of Information Gathering, Footprinting and reconnaissance, Outcome of footprinting, Familiarization of various information gathering tools, Open source intelligence, Maltego, Recon-ng, Hunter.io, Art of Googling (Google advanced search operators), Sub-Domain Enumeration, Social Engineering, Types of social engineering, Phishing, how to prevent Phishing attacks.	
Module 4	No. of hours: 7
Networking Basics, TCP and UDP, Important Port Numbers, Network Mapping, Vulnerability analysis, Nessus, Nikto, Lynis, Searchsploit, Metasploit framework, Android Hacking, Malware analysis and source code review. Denial of Service, DoS Evolution, Types of DoS, Symptoms of DoS, Distributed Denial of Service, Hammer, DDosTor, Dos attack Prevention.	
Module 5	No. of hours: 6
Types of Website attacks, website penetration testing, web application analysis, Burpsuite, OWASP TOP 10, OWASP-ZAP, CROSS-SITE SCRIPTING, BEEF FRAMEWORK, SQL INJECTION, SQLMAP, Sniffing, Network Penetration Testing, Network Security. Project or Hackathon for testing practical skills	
Module 6	No. of hours: 6
Communicative English, Information Technology awareness, Professional Ethics	