**Specialized Training Programme in IT and Cyber Security**

**COURSE CONTENTS**

**System Fundamentals**

Operating Systems Concepts, Introduction to Network topology, Open System, Interconnection mode- Working, Protocols, IP Addressing, Introduction to Devices Router, Switches, Hub, Firewall.

**Introduction to Cyber Security**

Fundamentals of information security -CIA Triad, Cyber Security Controls, understanding threats, attacks categories, Understanding the network security.

**Cyber Hygiene**

Introduction to Cyber Hygiene, Cyber Hygiene Current Attack Trends: - Web threats. Data breaches and privacy. Social Media. Scam & Email threats, Bots & Botnets, The essentials Malicious Software, safe Downloads, sharing and Locking devices, Secure Online Transactions etc., Foot-printing in Cyberspace, Privacy in Cyberspace.

**Smartphone’s Security Aspects**

Introduction to Smartphone security, Trends and popularity of Smartphone’s malware and their risk factors.

**Vulnerability Assessment Methodologies**

Vulnerability Assessment and Analysis, Host enumeration, port and vulnerability scanning ,OS Finger Printing ,Reconnaissance Tools, Penetration testing methodologies ,Web Application Security Overview

**Case Study:** Online identity theft, online transactions, Data and credential theft, Web threats, Lack of Cyber Hygiene is leading to Cyber Attacks and Cyber Threats