

Cybersecurity Centre of Excellence in association with
NASSCOM Futureskills Prime

present

Seven-Day Workshop on Foundations of Cybersecurity

Topics Covered:

- Thorough Introduction to Cybersecurity
- Essential Cyber Security Concepts
- Important Fundamentals of Networking
- Key Elements of Cyber Threats, Cyber Crimes and Cyber Laws
- Security Testing and Deep dive into social engineering attacks
- Introduction to Privacy, Cyber Crime, and Cyber Laws



Six Merits of this Workshop:

- Firm Grasp of the Key Concepts in Cybersecurity.
- Insights into Cybersecurity Security Tools
- Dive in Hands-On Experience
- Bag the Coveted **NASSCOM Future skills Prime Certification** to prepare for the Industry. The Certification carries the approval and stamp of **MeitY (Ministry of Electronics and Information Technology, Govt. of India)**
- Get Participation Certificate from Cybersecurity Centre of Excellence and get plugged into the Cybersecurity industry.
- Automatic enrolment in our Cybersecurity Database for Industry Opportunities (Internships / Employment / Research).

Eligibility:

Open to: All Streams UG/PG Students, Faculty, Researchers & PhD Scholars
(Note: You need not have technical background to sign up!)



20th February 2023 - 26th February 2023 | 10:00 AM to 5:00 PM

Register at: bit.ly/CCOE_Workshop

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Module 1: Thorough Introduction to Cybersecurity:

- Defining Cyberspace and Overview of Computer and Web Technology
- Architecture of Cyberspace Communication and Web Technology
- Internet
- World Wide Web
- Advent of Internet
- Internet Infrastructure for Data Transfer and Governance
- Internet Society Regulation of Cyberspace Concept of Cybersecurity
- Issues and Challenges of Cybersecurity

Module 2: Essential Cyber Security Concepts

- Layers of Security
- Vulnerability
- Threat
- Harmful Acts
- Computer Criminals
- Assets and Threat
- Motive of Attackers
- Types of Attacks
- Taxonomy of Various Attacks
- IP Spoofing
- Malware- Types of Malware
- Methods of Defense
- Security Models
- Physical Security
- Personnel Security
- Secure Development Process

2.a Data Security

- Confidentiality, Integrity, Availability Encryption and Decryption Data backup and Recovery

2.b Access Control

- Identification, Authentication, Authorization
- Access Control Models
- User Management
- Identity Access Management

Module 3: Important Fundamentals of Networking:

- Understanding of Network Architecture
- Network Components: Routers, Switches, Access points, Firewalls
- Network Topology Architectures
- Common Ports and Protocols
- TCP UDP and 3 Way Handshake
- IP Addresses
- MAC Addresses
- OSI Model
- Network Attacks
- Introduction to Intrusion Detection System
- Bastion Hosts and DMZ
- Proxy Servers
- Virtual Private Network

Module 4: Security Testing and Deep dive into social engineering attacks

- Introduction to security testing
- Understanding the concepts of Vulnerability Scanning and its real time applications
- Understanding the concepts of Penetration Testing and its applications
- Fundamentals of Security Auditing and Posture Assessment
- Importance of Ethical Hacking and its applications
- How to Manipulate and Exploit Human Behavior
- Social Engineering Techniques: Phishing, Pretexting, Baiting, Quid Pro Quo, Tailgating, Dumpster Diving, Vishing
- Social Engineering in the Digital Age Emerging Trends in Social Engineering Tactics
- Scenario Planning and Attack Simulation
- Designing Realistic Scenarios: Conducting Ethical and Safe Attack Simulations

- Best Practices for Protecting Against Advanced Social Engineering Threats.

Module 5: Introduction to Privacy, Cyber Crime, and Cyber Laws

- Introduction
- Security Operations
- Developing an Incident Management and Response System
- Digital Forensics
- Business Continuity and Disaster Recovery
- Risk Assessment and Management
- Incident Response and Disaster Recovery
- Compliance and Regulations
- Key Elements of Cyber Threats,
- Cyber Crimes and Cyber Laws
- Cyber Threats-Cyber Warfare,
- Cyber Terrorism & Cyber Espionage

From
20th February 2023
to
26th February 2023

Timings:
10:00 AM to 5:00 PM

Registration Fee:

1000 INR +
18% GST

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Important Information:

- Today, Cyber Risks are **Rated Globally as the #1 Risk**, surpassing every other kind of risk like Climate Change, Political Unrest, Terror Attacks, Natural Disasters, Fire / Accidents, Business Interruptions, etc.
- Cyber Attacks can happen anytime, anywhere, at any scale, with any level of sophistication.
- The damage due to Cyber Breaches is estimated to be **\$12 Trillion globally by 2025**. Hence the investments being made to prevent the damages are about **\$2 Trillion** globally.
- The Unemployment Rate in the Cybersecurity Sector remains firmly in the **Negative**. There is a VAST gap between Supply and Demand.
- About **137 Countries** are adopting Privacy Laws. This will accelerate the need for Cyber Security.
- All these indicate a HUGE Career Opportunity for YOU!
Whether you are a student/researcher/professional/manager, please note that Cybersecurity and Privacy **Cut across ALL Domains** (Industry / Technology / Business) – Both Horizontally and Vertically, Because there is a Cyber Component in practically EVERYTHING.
- You need not be a Techie to be in this Domain. People from backgrounds of Technology, Management, Law, Commerce, Sciences, Arts, etc. – all are welcome to explore.
- For those interested - Many Cutting-Edge areas are also included (like AI, Blockchain, 5G, IoT, etc.). It is a rich domain, exploding with possibilities.