



# CONTEXT

Digitalization and the growing networking of machines and industrial systems also mean an increase in the risk of cyberattacks.

Appropriate protective measures are imperative, especially for critical infrastructure facilities.

An approach that covers all levels simultaneously – from the operational to the field level and from access control to copy protection – is essential for comprehensively protecting industrial facilities against internal and external cyberattacks.

This course is for business leaders, general managers, and executives looking to build an action plan for a more cyber resilient organization.

# KEY BENEFITS

Select and use the right frameworks to enhance cybersecurity decision-making in your organization.

Assess risk, improve defences, and reduce vulnerabilities in your organization.

Speak the language of cybersecurity to enable informed conversations with your technology teams and colleagues, and ensure your organization is as cybersecure as possible.

Plan and build a Security based culture in an organization.

Compare and select the right frameworks to enhance cybersecurity of the organization.

Assess risk, improve defences, and reduce vulnerabilities in an organization.







### Module 1

## Cyber Security Fundamentals

- Introduction to Cyber Security
- Cyber Security Attacks- Passive and Active Attacks
- Cyber Security Services: Confidentiality, Authentication, Non-Repudiation, Integrity, Access Control, Availability,
- Point of Vulnerability,
- Model for Internetwork Security
- Internet Standards and RFCs

### Module 2

## **Enterprise Infrastructure Security**

- Sources of security threats, Motives & Target Assets
- Consequence of Security Threats
- Enterprise Cyber Security Threats: E-mail Threats, Web threats, Hacking, Intruders, Insider threats
- Current Trends of Cyber Crimes: Cyber Squatting, Cyber Stalking, Crime of deception, Content Oriented Online Crime, Malicious Software use and detection, Cyber Terrorism
- Network Security Threats

### Module 3

## **Enterprise Network Security**

- Introduction to Cryptography
- Public Key Encryption Algorithms & Public-key Infrastructure
- Cryptographic Protocols
- Digital Signature, Digital Watermarking and Steganography
- E-Commerce Security
- Biometric Security

### Module 4

# Identity & Access Management

- Authentication & Authorization
- AAA Triads
- Access Control Model
- Active Directory
- Identity Theft and Intellectual property theft

## Module 5

# Cyber Security & Risk Management

- Introduction to Security Risk Management & Risk Assessment
- Security Assurance Approaches: OCTAVE and COBIT Approaches.
- Cyber Security Management in Enterprises
  Businesses: Network Security
  Management, Firewalls, IDS, IPS, and IDPS
  Management.
- Web and Wireless Security Management.
- Cyber Security Models: Access control models, Role-Based and Lattice Models.

## Module 6

## **Creating Cyber Security Culture in Enterprises**

- Computer Security Log Management
- Malware Handling and Vulnerability Management programs.
- Specifying and enforcing security policies,
- Information security audit and principles of audit.
- Information Security Standards and Compliance: Overview of Security Standards, ISO 17799 Standard, Legal and Ethical issues, PCI DSS
- Cyber Insurance: Risk Transfer
- NIST Cybersecurity Framework

## **FACULTY**



**Dr. Himanshu Gupta**Associate Professor, Amity Institute of Information Technology

With more than 15 years of teaching and training experience he has expertise in areas of Network Security, Cryptography, Cyber and Information Security. He has 75 publications to his credit. He is senior member of Computer Society of India. He has successfully filed patents in areas of Network Security and Cryptography as an inventor.



**Dr. Sapna Sinha**Associate Professor, Amity Institute of Information Technology

She has 20+ years of teaching experience and is Ph.D. in Computer Science and Engineering. She has authored several book chapters and research papers in journal of repute. Her areas of interest include Machine Learning, Big Data Analytics, Artificial Intelligence, Networking and Security. She is D-Link certified Switching and Wireless professional, and Microsoft Technology Associate in Database management system, Software Engineering and Networking. She is EMC Academic Associate in Cloud Infrastructure Services.



**Dr. Monika Sharma**Associate Professor, Amity Institute of Information Technology

She has 18+ years of teaching experience and is a Ph.D. in Computer Science and Engineering. Her areas of interest include Information Security & Privacy, Machine Learning, Cloud Computing, Image Processing & IoT. She has more than 22 Research Publications to her credit and is a Member of Information Security Community.



**Dr. Komal Saxena**Associate Professor, Amity Institute of Information Technology,

She has 20+ years of teaching experience. And is Ph.D. in the area of Computer Science/Information Technology. Her areas of interest include ERP, AI, cybersecurity, & IOT. She is having more than 20 Research Publications to her credit. She is Member of Information Security Community and has filed two patents in the area of Information Technology.

## **JOINING INSTRUCTIONS: ITEC COURSES**

**ARRIVAL ASSISTANCE:** Pick up and Drop from / at Indira Gandhi International Airport. The Airport is 30 km from Amity Campus and the travel time is 60 minutes approx.

**LIVING ASSISTANCE:** Participants are provided Daily Living Allowance of INR 1500/- per day

**ACCOMMODATION:** Air-conditioned rooms on single occupancy basis with facilities including TV, Internet, Fax, Coffee Maker and attached toilet

**FOOD:** All meals will be provided at approx INR 750/- per day, to be deducted from Day Living Allowance

**DRESS CODE:** Informal during training hours and casual thereafter. Wear light cottons during summer and woollens during winter

**WEATHER:** Noida/Delhi has summer (April-July) with temperature varying from 25°C to 45°C During winters (December – January) temperatures vary from 5°C to 22°C

**RULES:** University rules and regulations, security procedures and administrative matters will be explained to participants on arrival

**SHOPPING:** World-class shopping malls and centres are situated in Noida and Delhi. Delhi and Agra (230 kms away) are famous for tourist sites including Taj Mahal

**TRANSPORT:** Taxi, Metro Rail, Public Transport buses are easily available at University Campus

**PACKING TIPS:** Bring only clothes and other essentials. Training kit, bedding and linen will be provided to every participant.

**COMMUNICATION:** Amity University campus is wi-fi enabled. Participants may insert an international roaming SIM Card in their mobile phones for voice and data before departure for India.



## THINGS TO DO IN AND AROUND NOIDA/ DELHI

### **TOURIST SITES**



#### India Gate

- Commemorates Indian soldiers who died during World War-I
- Dramatically flood lit at night
- Thousands pay respect every day.



#### Rashtrapati Bhawan

- Home of President of India surrounded by Mughal Gardens
- Has a museum complex



#### **Red Fort**

- Massive fort built in 1638
- Reminder of power of Mughal Emperors.
- Includes veritable treasure trove of buildings



### Taj Mahal

- Ivory-white marble, mausoleum in Agra, near Delhi
- Built in 1632 by Mughal Emperor Shahjahan to house the tomb of his wife Mumtaz Mahal
- It is UNESCO world heritage site

## **SHOPPING & ENTERTAINMENT**



#### **DLF Mall of India, Noida**

- Largest shopping Mall of Delhi/Noida
- 335 brands
- 7 floor filled with shopping
- 75 food and beverage options



### Janpath

- Great Place for budget shopping
- Long line of boutique stores of handicrafts, garments, curio
- Indian Street food



#### **Connaught Place**

- Business and financial hub
- Centred on a ring of Georgian Style Buildings
- Global chain stores, bars and restaurants



#### **Khan Market**

- Has many cafes, restaurants, bakeries and street food stalls
- Famous for stylish high-end designer shops

### **CAMPUS FACILITIES**



#### **Swimming Pool**

• 50 meter Olympic size pool.



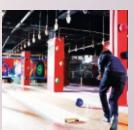
#### **Sports Complex**

- Basket Ball courts,
- Tennis Courts
- Squash courts
- Athletics Track
- Yoga Complex



#### **Gymnasium**

 The Gym has the latest equipment for men and women



#### Arcadia

- Fun and Team Games
- Bowling Alley
- Pool Tables
- Video Games
- Discotheque

## **AMITY UNIVERSITY**

Amity University Uttar Pradesh is India's no.1 ranked not-for-profit pvt university and is ranked amongst the top 3% universities globally. It has 150+ group institutions and centres which offer 300+ graduate, post doctorate and doctoral programmes.

The University is located at Noida which is part of National Capital Region (NCR) adjacent to Delhi. NCR has been the centre of Indian civilization for at least 3000 years. It is the cultural, historic and governmental centre of India.



ITEC courses are conducted by Amity Institute of Training and Development

## **CONTACT DETAILS**

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