

Track E (Infrastructure & Network Security)

Course 12. Cyber Forensics & Cyber laws

Sl. No.	Modules	Hours
1	Fundamentals of Computer and Cyber Forensics	50
2	Cyber Forensics (Evidence Recovery & Investigation)	130
3	Cyber Crimes and Cyber Laws	40
4	Management Development Program	60
5	Project	40
	Total	320

Eligibility: Any Engineering /Science graduate with mathematics up to 10+2 level

Course Prerequisite: Candidate should have basic knowledge of computer and networking fundamentals with logical approach and knowledge of Cyber Crimes.

Course Focus: The objective of this course is to provide skills to those students who want to make carrier in Cyber Forensic.

Detailed Syllabus

Fundamentals of Networks and Cyber Security

- Basic Computer Terminology
- Internet
- Networking
- Computer Storage
- Cell Phone / Mobile Forensics
- Computer Ethics and Application Programs
- Cyber Forensic Basics- Introduction to Cyber Forensics
- Storage Fundamentals
- File System Concepts
- Data Recovery
- Operating System Software and Basic Terminology
- Introduction to Cyber Security
- Implementing Hardware Based Security
- Software Based Firewalls
- Security Standards
- Assessing Threat Levels
- Operating System Attacks
- Application Attacks
- Reverse Engineering & Cracking Techniques and Financial Frauds

Cyber Forensics (Evidence Recovery & Investigation)

- Introduction to Deleted File Recovery
- Formatted Partition Recovery
- Data Recovery Tools
- Data Recovery Procedures and Ethics

- Preserve and safely handle original media
- Document a "Chain of Custody"
- Complete time line analysis of computer files based on file creation
- File modification and file access
- Recover Internet Usage Data
- Recover Swap Files/Temporary Files/Cache Files
- Introduction to Encase Forensic Edition
- Forensic Tool Kit (FTK)
- Use computer forensics software tools to cross validate findings in computer evidence
- Introduction to Cyber Forensic Investigation
- Investigation Tools
- Digital Evidence Collection
- Evidence Preservation
- E-Mail Investigation
- E-Mail Tracking
- IP Tracking
- E-Mail Recovery
- Encryption and Decryption methods
- Search and Seizure of Computers
- Recovering deleted evidences
- Password Cracking
- Case studies

Cyber Crimes and Cyber Laws

- Introduction to IT laws & Cyber Crimes
- Internet, Hacking
- Cracking
- Viruses
- Virus Attacks
- Pornography
- Software Piracy
- Intellectual property
- Legal System of Information Technology
- Social Engineering
- Understanding Copy Right in Information Technology
- Understanding the technology of Software software-copyright vs Patent debate
Authorship
- Assignment issues Commissioned work
- Work for hire Idea/Expression dichotomy
- Copy right in internet
- Legal Issues in internet and Software Copyright Jurisdiction Issues
- Copyright Infringe Remedies of Infringement Multimedia
- Copyright issues Software Piracy
- Patents understanding
- Cyber Crimes
- Understanding Cyber Crimes in context of Internet
- Indian Penal Law & Cyber Crimes Fraud Hacking Mischief
- International law

- Obscenity and Pornography Internet
- Potential of Obscenity Indian Law On Obscenity & Pornography Technical
- Legal solutions International efforts Changes in Indian Laws
- E-Commerce & Taxation
- E-Commerce-Salient Features On-Line contracts Mail Box rule Privities of
- Contracts Jurisdiction issues in E-Commerce Electronic Data Interchange.
- Security and Evidence in E-Commerce Dual Key encryption Digital signatures security issues
- UNCITRAL model law of E-Commerce
- Indian Legal Position on E-Commerce IT Act 2000/Indian Evidence Act/Draft law on E-Commerce

Management Development Program

Introduction to communication, Barriers to communication, Kind of communication, Confidence building Non-verbal Communication, Fluency and vocabulary, Synonyms, Antonyms, Grammar, Noun Pronoun, Verb, Adjective, Preposition, Conjunction, Words of Idioms & phrases, Sentence Construction, Fill up the blanks, Pronunciation, Conversation practice, Polite Conversation, Greeting, Logical reasoning, General Aptitude, Writing: Covering letter, Resume, Email, Presentation Skill, group discussion, Interview skills, Mock interview

Project