राष्ट्रीय प्रौद्योगिकी संस्थान पटना / NATIONAL INSTITUE OF TECHNOLOGY PATNA
संगणक विज्ञान एंव अभियांत्रिकी विभाग / DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
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No:- Date:

CSXX2826Cyber Laws and Rights in the Digital Age

L-T-P-Cr: 3-0-0-3

Pre-requisites: Prior knowledge of fundamentals of Network Security and Cryptography

Objectives/Overview:

1. To impart knowledge of multiple cyber security technologies, processes, and procedures.
2. To learn how to analyze the threats, vulnerabilities and risks present in these environments.
3. To and develop appropriate strategies to mitigate potential cyber security problems.

Course Outcomes:

At the end of the course, a student should:

Sl. No	Outcome	POs
1.	Explain the cybercrime and legal consequences in information technology.	PO4, PO6, PO10
2.	Describe the ways of precaution and prevention of Cyber Crime	PO2, PO9, PO12
3.	Analyze legal obligations in cyberspace and legal issues in cyber operations and in the use of related tools, techniques, technology, and data.	PO4, PO5, PO8

UNIT I **Lectures: 12**

Cyber Security Fundamentals: Introduction, cybercrime and Information Security, Classification of Cybercrimes, Cybercrime the legal Perspective, Cyberoffences,, Cyber-attacks, Social engineering, Cyberstalking, Botnets, Attack Vector, Cybercrime and cloud computing, Cybercrimes on mobile and wireless devices, Attacks on mobile/cell phones, Authentication service security, Organizational security policies and measures in mobile computing

UNIT II **Lectures: 10**

Ethics in Cyber Security: Privacy, Intellectual Property in the cyberspace, Professional Ethics, Freedom of Speech, Fair User and Ethical Hacking, Trademarks, Internet Fraud, Electronic Evidence, forensic Technologies, Digital Evidence collectionTools and Methods Used in Cybercrime: Introduction, Proxy Servers and Anonymizers, Phishing, Password Cracking, Keyloggers and Spywares, Virus and Worms, Phishing and Identity Theft, Trojan Horses and Backdoors, Steganography, DoS and DDoS Attacks, SQL Injection, Buffer overflows

UNIT III **Lectures: 10**

Cybercrimes and Cybersecurity: Cybercrime and Legal Landscape around the world, Cyberlaws, The Indian IT Act, Challenges, Digital Signatures and Indian IT Act, Amendments to the Indian IT Act, Cybercrime and punishment, Cost of Cybercrimes and IPR Issues, Web threats for Organizations, Social Computing and associated Challenges for Organizations.

UNIT IV **Lectures: 10**

Cybercrime Examples and Mini-Cases: Career Paths in Cybersecurity, Honeypots, Case study (Official Website Hacking, E-mail spoofing, Banking related Frauds, Credit Card related Frauds)

Text/Reference Books:

1. Cyber Security by Nina Godhole, SunitBelapure, Wiley India.
2. Cyber Security Essentials by James Graham, Ryan Olson, Rick Howard CRC Press, Taylor & Francis Group, 2011 ISBN: 978-1-4398-5123-4