Cyber Security

Course Code	19CS4602B	Year	III	Semester	II
Course Category	Program Electi - III	Branch	CSE	Course Type	Theory
Credits	3	L-T-P	3-0-0	Prerequisites	Number Theory and Cryptography
Continuous Internal Evaluation :	30	Semester End Evaluation:	70	Total Marks:	100

Course Outcomes						
Upon successf	Upon successful completion of the course, the student will be able to					
CO1	Understand the basics of cybercrime and offences	L2				
CO2	Apply various security measures on mobile devices for a given scenario.	L3				
CO3	Apply various methods and tools used in Cyber Crime.	L3				

Contribution of Course Outcomes towards achievement of Program Outcomes & Strength of correlations (3:Substantial, 2: Moderate, 1:Slight)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO 1	3							1				1		
CO 2	3					2			1	1				2
CO 3		3				2								2

	Syllabus	
Unit No.	Contents	Mapped CO
I	Introduction to Cybercrime: Introduction, Cybercrime, and Information Security, Who are Cybercriminals, Classifications of Cybercrimes, And Cybercrime: The legal Perspectives and Indian Perspective, Cybercrime and the Indian ITA 2000, A Global Perspective on Cybercrimes.	CO1
II	Cyber Offenses: How Criminals Plan Them: Introduction, How Criminals plan the Attacks, Social Engineering, Cyber stalking, Cyber cafe and Cybercrimes, Botnets: The Fuel for Cybercrime, Attack Vector, and Cloud Computing.	CO1
Ш	Cybercrime: Mobile and Wireless Devices: Introduction, Proliferation of Mobile and Wireless Devices, Trends in Mobility, Credit card Frauds in Mobile and Wireless Computing Era, Security Challenges Posed by Mobile Devices, Registry Settings for Mobile Devices, Authentication service Security, Attacks on Mobile/Cell Phones, Mobile Devices: Security Implications for Organizations, Organizational Measures for Handling Mobile, Organizational Security Policies an Measures in Mobile Computing Era, Laptops.	CO1,CO2
IV	Tools and Methods Used in Cybercrime: Introduction, Proxy Servers and Anonymizers, Phishing, Password Cracking, Keyloggers and Spywares, Virus and Worms, Trojan Horse and Backdoors, Steganography, DoS and DDoS attacks, SQL Injection, Buffer Overflow.	CO1,CO3
V	Cyber Security: Organizational Implications Introduction, Cost of Cybercrimes and IPR issues, Web threats for Organizations, Security and Privacy Implications, Social media marketing: Security Risks and Perils for Organizations, Social Computing and the associated challenges for Organizations.	CO1,CO3

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Text Books

1. Cyber Security: Understanding Cyber Crimes, Computer Forensics and Legal Prespectives, Nina Godbole and Sunil Belapure, First edition, 2011, Wiley INDIA.

References

- 1. James Graham, Richard Howard and Ryan Otson, Cyber Security Essentials, First edition, 2011, CRC Press.
- 2. Chwan-Hwa(John) Wu,J.David Irwin, Introduction to Cyber Security, First edition, 2013, CRC Press T&F Group.

e-Resources & Other Digital Material

1. http://nptel.ac.in/courses/106105031/lecture by Dr. Debdeep Mukhopadhyay, IIT Kharagpur