RAJIV GANDHI PROUDYOGIKI VISHWAVIDYALAYA, BHOPAL

New Scheme Based On AICTE Flexible Curricula

Computer Science & Information Technology, IV-Semester

BT408 Cyber Security

Unit I

Introduction- Introduction of Cyber Crime, Categorizing Cybercrime, Cybercrime Theory, Criminology perception of cyber criminals: hackers, computer intrusions and Attacks, Privacy, surveillance and protection, hiding crimes in cyberspace, cryptography, hacking vs cracking, privacy and security at risk in the global information society.

Unit II
Application Security- Data Security, Security Technology-Firewall and VPNs, Intrusion Detection, Access Control. Security Threats -Viruses, Worms, Trojan Horse, Bombs, Trapdoors, Spoofs, E-mail Viruses, Macro Viruses, Malicious Software, Network and Denial of Services Attack, Security Threats to E-Commerce- Electronic Payment System, e- Cash, Credit/Debit Cards.

Unit III
Cryptrography concepts and Techniques
Plain text , cipher text, types – substitution ,transposition ,encryption, decryption , symmetric and asymmetric key cryptography algorithms, steganography .

Unit IV
Security Policies- Development of Policies, WWW Policies, Email Security Policies, Policy Review Process-Corporate Policies-Sample Security Policies, Publishing and Notification Requirement of the Policies.

Unit V
Information Security Standards-ISO, IT Act, Copyright Act, Patent Law, IPR. Cyber Laws in India; IT Act 2000 Provisions, Intellectual Property Law: Copy Right Law, Software License, Semiconductor Law and Patent Law.
Case Study – Corporate Security , Cyber cases

References:

- Nina Godbole " Cyber Security: Wiley.
- Michael E.Whitman and Herbert J Mattord "Principle of Information Security" Cengage
- William stallings "Cryptography and Network Security" PEARSON
- Charles P. Pfleeger, Shari Lawerance Pfleeger, "Analysing Computer Security", Pearson Education India.
- Vinod V. Sople, "Managing Intellectual Property" PHI Learning Private Limited
- IT Act 2000 Details www.mit.gov.in
- Atul Khate, "Cryptrography and Network Security" ,TMH
- V.K.Pachghare, "Cryptography and information Security", PHI Learning Private Limited, Delhi India.
- CHANDER, HARISH," Cyber Laws And It Protection " , PHI Learning Private Limited ,Delhi