

**GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING AND TECHNOLOGY**

**CYBER SECURITY**

**(Professional Elective IV)**

**Course Code: GR17A4089**

**L T P C**

**IV Year II Semester**

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**UNIT I**

**Introduction to Cyber Crime**

Challenges of cybercrime, Classifications of Cybercrimes: E-Mail Spoofing, Spamming, Internet Time Theft, Salami attack/Salami Technique, Data Diddling, Web jacking, Online Frauds, Software Piracy, Computer Network Intrusions, Password Sniffing, Identity Theft, cyber terrorism, Virtual Crime , Perception of cyber criminals: hackers, insurgents and extremist group etc. Web servers hacking, session hijacking.

**UNIT II**

**Cybercrime on Mobile and Wireless Device**

Proliferation of Mobile and Wireless Devices, trends in Mobility Credit Card Frauds in Wireless Computing, Types and techniques of Credit Card Frauds, Attacks on Mobiles: Mobile Viruses, Mishing, Vishing, Smishing& Hacking Bluetooth. Web server hacking, session hijacking.

**UNIT III**

**Tools and Methods in Cybercrime**

Proxy Servers and Anonymizers, Password Cracking, Keyloggers and Spyware, virus and worms, Trojan Horses, Backdoors, DoS and DDoS Attacks , Buffer and Overflow, Attack on Wireless Networks, Phishing : Method of Phishing, Phishing Techniques.

## **UNIT IV**

### **Cyber Crime and Criminal justice**

Concept of Cyber Crime and the IT Act, 2000, Hacking, Teenage Web Vandals, Cyber Fraud and Cheating, Defamation, Harassment and E-mail Abuse, Other IT Act Offences, Monetary Penalties, jurisdiction and Cyber Crimes, Nature of Criminality, Strategies to tackle Cyber Crime and Trends. The Indian Evidence Act of 1872 v. Information Technology Act, 2000: Status of Electronic Records as Evidence, Proof and Management of Electronic Records; Relevancy, Admissibility and Probative Value of E-Evidence, Proving Digital Signatures, Proof of Electronic Agreements, Proving Electronic Messages.

## **UNIT V**

### **Introduction to Cyber Forensics**

Information Security Investigations, Corporate Cyber Forensics, Scientific Method in Forensic analysis, investigating large scale Data breach cases. Analyzing Malicious software. Types of Computer Forensics Technology, Types of Business Computer Forensic Technology, Specialized Forensics Techniques.

### **TEXT BOOKS**

1. Principles of Cyber crime, Jonathan Clough Cambridge University Press
2. Cyber Security by Nina Godbole, Sunit Belapure, Willey-India
3. Cyber Law Simplified, Vivek Sood, TMH.

### **REFERENCES**

1. John R. Vacca, Computer Forensics: Computer Crime Scene Investigation, 2nd Edition, Charles River Media, 2005
2. Cyber Laws and IT Protection, Harish Chander, PHI.