B.Tech. Computer Science & Engineering (Cyber Security)

Cyber Security is a specialized field within Computer Science & Engineering that focuses on protecting systems, networks, and data from cyber threats and vulnerabilities. It combines principles of Computer Science, Information Security, Cryptography, Network Security, and Risk Management. This 4-year undergraduate programme in Computer Science & Engineering with specialization in Cyber Security is designed to equip students with a strong foundation in Secure Programming, Ethical Hacking, Digital Forensics, Network Defense, and Cyber Law to ensure the security and integrity of digital systems and infrastructure.

SCOPE OF CYBER SECURITY

❖ The rapid digitization of services, growth of online transactions, and increasing reliance on interconnected systems have led to a surge in cyber threats, making Cyber Security a critical and ever-growing field in today's digital landscape. It stands as a key pillar in ensuring data protection, privacy, and national security.

❖ It offers vast career opportunities across both public and private sectors including defense, finance, IT services, healthcare, e-commerce, and critical infrastructure, with roles in areas such as ethical hacking, security analysis, network defense, and cyber law enforcement.

PROGRAMME OBJECTIVES

❖ Graduates will excel in the field of Computer Science and Engineering with a strong foundation in Cyber Security, enabling them to design, develop, and manage secure computing systems in industry, government, or academia.

❖ Graduates will pursue advanced education, certifications, or research in computer science, information security, or related interdisciplinary fields, contributing to innovation and knowledge development.

❖ Graduates will engage in continuous learning to keep pace with the evolving technologies and security threats in the digital world, adapting to new challenges in professional and personal domains.

❖ Graduates will demonstrate a commitment to ethical practices, legal compliance, and social responsibility in dealing with sensitive data, security issues, and digital forensics.

B.TECH. CSE (CYBER SECURITY) – JOB ROLES

- Cyber Security Analyst
- Ethical Hacker
- Information Security Manager
- Security Software Developer
- Cyber Forensics Expert
- Network Security Engineer
- Penetration Tester
- Incident Response Specialist
- Cryptographer

- Malware Analyst
- Security Compliance Analyst
- Risk & Vulnerability Analyst
- Cloud Security Engineer
- Security Operations Center (SOC) Analyst
- Application Security Engineer
- Data Privacy Officer

CYBER SECURITY PROFESSIONALS – DEMANDED BY

- Tata Consultancy Services (TCS)
- Wipro Ltd.
- Infosys
- HCL Technologies
- Cognizant
- IBM
- Microsoft
- Google
- Amazon Web Services (AWS)
- Accenture
- Tech Mahindra
- Paladion Networks
- Symantec (Broadcom)
- Quick Heal Technologies
- FireEye

- Deloitte
- PwC (PricewaterhouseCoopers)
- Ernst & Young (EY)
- Cisco Systems
- Oracle
- CrowdStrike
- Checkpoint Software Technologies
- McAfee
- Forcepoint
- Capgemini
- Indian Defence & Government Agencies
- National Critical Information Infrastructure Protection Centre (NCIIPC)
- ISRO
- CERT-In