(061-CSE-02-02) CSE (CYBER FORENSICS)

Significance of the Programme:

A course in cyber forensics can be highly significant for undergraduate students in several ways, considering the increasing importance of cybersecurity and the digital landscape. The main goal of computer forensics is to identify, collect, preserve, and analyze data in a way that preserves the integrity of the evidence collected so it can be used effectively in a legal case. It will benefit the under graduate students by providing them with specialized skills, industry relevance, and a comprehensive understanding of cybersecurity principles and practices. This knowledge enhances their employability and prepares them for roles in the ever-evolving field of cybersecurity.

Career Options:

- Cybersecurity Analyst
- Digital Forensic Analyst
- Incident Responder
- Security Consultant
- Security Software Developer
- Security Architect
- Security Manager

Program Objectives:

- Exhibit knowledge to secure corrupted systems, protect personal data, and secure computer networks in an Organization
- Develop cyber security strategies and policies
- Identify the essential and up-to-date concepts, algorithms, protocols, tools, and methodology of Computer Forensics
- To correctly define and cite appropriate instances for the application of computer forensics collect and analyze computer forensic evidence

Outcomes of the Program:

- Acquire skills related to incident response, which involves effectively and efficiently responding to cybersecurity incidents, including analyzing and mitigating threats.
- Gain an awareness of legal and ethical considerations associated with digital investigations.

- Enhance critical thinking skills and the ability to solve complex problems related to cybersecurity incidents and digital forensics.

Major Course Outlines:

- Computer Forensics in Today's World

- Computer Forensics Investigation Process

- Understanding Hard Disks and File Systems

- Data Acquisition and Duplication

- Defeating Anti-Forensics Techniques

- Operating System Forensics (Windows, Mac, Linux)

- Dark Web Forensics