(051-CMT-01-02) COMPUTER SCIENCE AND MEDICAL ENGINEERING

Significance of the Program

B.Tech Computer Science and medical engineering deals with applications of engineering principles and design concepts to medicine and biology for healthcare purposes. This field seeks to close the gap between engineering and medicine, combining the design and problem-solving skills of engineering with medical biological sciences to advance health care treatment, including diagnosis, monitoring, and therapy.

Career Options

Pursuing a Professional Course in Computer Science and Medical Engineering, students can explore the following opportunities.

- Biomedical Engineer
- Data Analyst
- Intelligence Analyst
- Biomedical Scientist/ researcher
- Information Security Analyst
- Medical Technology Developer

Program Objectives

- To impart fundamental knowledge of examining medical data for analyzing data trends and predicting pandemic behavior of any disease progress.
- To provide diverse skills required for creating solutions to various diseases
- To introduce efficient tools and techniques used in medical engineering.

Outcomes of the Program

- Enables the student to gain diverse skills to create solutions to continuing worldwide health issues, helping to change how patients are treated and lowering the cost of care.
- Enables the student to gain intensive inputs in areas of Biomedical AI, Software engineering in medical devices or medical applications and Modelling of pharmaceuticals.
- Enables the student to learn machine learning, Computer Vision, Deep Learning and software engineering technologies.
- Enables the student to examine data trends and predict pandemic behavior of any disease progresses, examine medical images and writing computer programming for this.

Major Course Outline

1. Foundations of Mathematics in Computer Science
2. Computer Assisted Decision Making
3. Computer Assisted Therapy
4. Medical Image Processing
5. Health Informatics
6. Telemedicine
7. Information and Cognitive Science
8 Security & Privacy of Data