



### Vision and Mission of Department

#### VISION:

To be an Information Technology programme as the first choice by the aspiring students and prospective employers by implementing world class education practices.

#### MISSION:

1. To adopt vibrant academic curricula and implementing innovative teaching learning processes
2. To Provide opportunities to the students for the development of professional skills
3. To Nurture critical thinking and creativity in students
4. To Inculcate students the life-long learning attitude and sensitivity towards society & environment

### B. Tech. Information Technology

(Program Code: 1-1358137388)

#### Program Educational Objectives (PEOs)

Programme Educational Objectives of Department of Information Technology are as follows.

Graduates of Information Technology programme after a span of three to four years of their graduation will:

PEO1	Demonstrate technical competency by applying knowledge to solve problems related to engineering issues.
PEO2	Exhibit skills and appropriate attitude to succeed in their professional career.
PEO3	Display thirst for emerging technologies and quest for innovation with concern to society and environment.



### Programme Outcomes (POs)

The students after successfully completing this programme will have ability to:

**PO1: Engineering Knowledge:** Apply the knowledge of mathematics, engineering fundamentals and computational science to the solution of engineering problems.

**PO2: Problem Analysis:** Identify, formulate, interpret and analyze the complex engineering problems leading to substantiated conclusions.

**PO3: Design/Development of Solutions:** Design systems, components or processes to meet desired needs within realistic constraints such as economic, environmental, societal and ethical considerations.

**PO4: Conduct Investigations of Complex Problems:** Use research based knowledge and methods including design of experiments, analysis, interpretation and synthesis of information to provide valid conclusions.

**PO5: Modern Tool Usage:** Select and apply appropriate techniques, engineering skills and modern IT tools to prototype the model of complex engineering activities.

**PO6: The Engineer and Society:** Apply contextual knowledge pertaining social, secure, legal and cultural issues with consequent responsibilities relevant to Information Technology.

**PO7: Environment And Sustainability:** Understand the impact of the professional engineering solutions in social, environmental and the global contexts, demonstrating the knowledge of, and the need for sustainable development.

**PO8: Ethics:** Apply ethical principles and commit to the professional ethics with responsibilities and norms of the engineering practices.

**PO9: Individual and Team Work:** Work effectively as an individual as well as a member or a leader in diverse teams for multidisciplinary settings.

**PO10: Communication:** Communicate effectively with the engineering community and with society at a large, such as, being able to comprehend and write reports and design documentation to make effective presentations.

**PO11: Project Management and Finance:** Demonstrate knowledge and

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understanding of the engineering and management principles and apply those to original work or contemporary issues, as a member or/and a leader in a team or an entrepreneur, to manage projects in multidisciplinary environments.

**PO12: Life-long learning:** Recognize the need and prepare to engage independent and in life-long learning.

**PSO1:** Apply Software Engineering practices, Programming logic, Networking techniques and Information Storage Management in project development process.

**PSO2:** Conceptualize ideas into IT based solutions with industry interaction using cutting edge technologies such as Data Mining, High Performance Computing, Artificial Intelligence, Machine Learning, Computer Vision and Information Security.

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**M. Tech. Computer Science and Information Technology**

(Program Code: 1-1358137416)

**Program Educational Objectives (PEOs)**

Graduates of PG Programme within three to five years of their graduation in Computer Science and Engineering (Specialization in I.T.) will be able to:

**PEO1.** Demonstrate the domain expertise and technical leadership with good communication and professional skills to analyze, synthesize, evaluate and execute real life projects in Computer Science and Engineering (I.T.) and allied fields.

**PEO2.** Contribute individually or in team to the development of Engineering technology leading to innovation in various domains of Computer Science and Engineering using modern tools in Information Technology.

**PEO3.** Exhibit life-long learning attitude, ethical behavior and societal responsibility

**Programme Outcomes (POs)**

Post graduates on successful completion of the programme will be able to:

**PO1:** Apply appropriate research methodologies and demonstrate higher order skill individually, in groups to the development works in the domain of Computer Science and Information Technology to solve practical problems. **(Research Skill)**

**PO2:** Communicate with engineering community and society at large, confidently and effectively, through technical report, documentation and presentation, by adhering to appropriate standards. **(Communication)**

**PO3:** Demonstrate degree of mastery in Computer Science and Information Technology at a level higher than the requirements in the appropriate bachelor program. **(Scholarship of Knowledge)** <sup>4</sup>

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**PO4:** Analyze complex problems in Computer Science and Information Technology with an ability to compare, contrast and predict theoretically and practically to evaluate wide range of potential solutions with the aid of modern engineering techniques/tools. **(Critical Thinking and Problem Solving)**

**PO5:** Demonstrate ethical behavior with professional code of conduct, life-long learning, effective managerial skills, and contribute to sustainable development of society **(Ethical Practices, Social responsibility, Managerial skills and Life-long learning)**

**PO6:** Apply emerging techniques for the design of Computer Science and Information Technology facilities in the domain of Machine Learning, Data Analytics, Computer Vision, High Performance Computing, Networking, Information Systems and recent technologies **(Programme specific outcome)**

*A. 16/2/23*