B.Tech Program

PROGRAM EDUCATIONAL OUTCOMES (PEO's)

PEO-1:

To train students with practical skills and experimental practices related to core and applied areas of mechanical engineering to expand their knowledge horizon beyond books.

PEO-2:

To enable students to design, develop and maintain mechanical equipments which are useful for the society.

PEO-3:

To improve team building, team working and leadership skills of the students with high regard for ethical values and social responsibilities.

PEO-4:

To enable students to communicate effectively and demonstrate the knowledge of project management and independent research.

PROGRAMME OUTCOMES (PO's)

Engineering Graduates will be able to:

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

PO2 Problem analysis: Identify, formulate, review literature and analyze mechanical engineering problems to design, conduct experiments, analyze data and interpret data.

PO3 Design /development of solutions: Design solution for mechanical engineering problems and design system component of processes that meet the desired needs with appropriate consideration for the public health and safety, and the cultural, societal and the environmental considerations.

PO4 Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions in mechanical engineering.

PO5 Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to mechanical engineering activities with an understanding of the limitations.

PO6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to mechanical engineering practice.

PO7 Environment and sustainability: Understand the impact of the mechanical engineering solutions in societal and environmental contexts, and demonstrate the knowledge and need for sustainable development.

PO8 Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the mechanical engineering practice.

PO9 Individual and team work: Function affectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings in mechanical engineering.
PO10 Communication: Communicate effectively on complex engineering activities with the engineering committee and with society at large, such as, being able to comprehend and write affective reports and design documentation, make effective presentations in mechanical engineering.
PO11 Project Management and finance: Demonstrate knowledge & understanding of the mechanical engineering principles and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments in mechanical engineering.
PO12 Life- long learning: Recognize the need for, and the preparation and ability to engage in independent research and lifelong learning in the broadest contest of technological changes in mechanical engineering.

PROGRAMME SPECIFIC OUTCOMES (PSO's)
Engineering Graduates will be able to:
PSO1 To empower the students to apply practical skills, knowledge in major streams such as thermal, design, manufacturing and industrial engineering.
PSO2 To enable the student to take-up career in industries or to pursue higher studies in mechanical and interdisciplinary programs with high regard for ethical values, environmental and social issues.

M.Tech.

Programme Educational Objectives (PEOs)

PEO-1:
Post Graduates will have fundamental technical knowledge and develop analytical skills required for mechanical engineering (manufacturing technology and automation).

PEO-2:
Post Graduates to focus on practical skills and capable of using software and developing program related to core and applied areas of their discipline to expand their knowledge horizon beyond books and to equip them with experimental and industrial practices.

PEO-3:
Post Graduates will have improved team building, team working and leadership skills with high regard for ethical values and social responsivities.

PEO-4:
Post Graduates will create and develop innovations in various aspects of mechanical engineering.

PROGRAMME OUTCOMES (PO) Mechanical Engg.(Mfg. Tech. & Automation)
Engineering programs have been designed to prepare M.Tech. Students for attaining the following program outcomes (PO):

PO1 An ability to independently carry out research /investigation and development work to solve practical problems of Manufacturing Technology and Automation Engineering.

PO2 An ability to write and present a substantial technical report/document

PO3 Students should be able to demonstrate a degree of mastery in the area of Manufacturing Technology and Automation Engineering. The mastery should be at a level higher than the requirements in the bachelor program of Mechanical Engineering

PO4 An ability to use research-based knowledge and research methods including design of experiments, analysis and interpretation of data for the solution of complex problems of manufacturing industries/institutions

PO5 An ability to develop and apply computer based software and hardware tools for the analysis of problems related to mechanical design, manufacturing and automation fields.

PO6 An ability to apply the acquired knowledge to assess societal, safety, ethical issues and subsequently design / develop mechanical equipment and systems.