



Department of Mechanical Engineering

Delhi Technological University

Shahbad Daulatpur, Main Bawana Road Delhi-110042,

M.Tech

Computer Aided Analysis and Design

Program Educational Objectives PEOs

PEO 1: To develop the scientific and engineering manpower of high quality to cater to the needs of the industry and institutes.

PEO 2: To provide a broad grasp of the fundamental principles of the mechanics and design through its advanced curriculum.

PEO 3: To provide a deep understanding of the area of specialization to serve and understand better the industrial problems.

PEO 4: To develop the students with a capability to cater the requirements and aspirations of society.

Programme Specific Outcomes (PSOs)

After completion of the Program, students will be able to:

PSO 1: Build capability for research in the area of computational mechanics and design along with problem solving skills for industry. Recognize the need for lifelong learning independently, with a high level of enthusiasm and commitment to improve knowledge and competence continuously.

PSO 2: The student will be equipped in the use of various CAD/CAE softwares, thereby having high employability potential for industry along with possibility of entrepreneurship and pursuit of higher studies.

Program Outcomes (PO)

PO 1: An ability to independently carry out research/investigation and development work to solve practical problems.

PO 2: An ability to write and present a substantial technical report/document.

PO 3: An ability to demonstrate expertise over the area as per the specialization of the program.

PO-4: To integrate basic and advance research knowledge for identification and formulation of problem statement to focus on alternate approaches for their solution.

PO-5: To be able to apply the research knowledge for solution to industry specific problems.

PO-6: To impart capabilities in post graduate students of Computer Aided Analysis and Design to work in cross cutting areas of Operations Management.

Industrial Engineering and Management

Program Educational Objectives PEOs

PEO 1: To develop the scientific and engineering manpower of high quality to cater the need of the industries and institutes.

PEO 2: To provide a broad concept of Industrial Engineering & Management.

PEO 3: To provide a deeper understanding of the area of specialization to solve the industrial problems.

PEO 4: To develop the students with a capability to cater the requirements and aspirations of the society.

Programme Specific Outcomes (PSOs)

After completion of the Program, students will be able to:

PSO 1: Apply the skills in the field of decision making, optimization, simulation and modeling, statistics for optimal utilization of the different resources and improving the efficiency and affectiveness of the various processes in the industry.

PSO 2: Develop entrepreneurship skills and be equipped in applying knowledge of Industrial Engineering and management in solving various real time problems and also pursue higher studies.

Program Outcomes (PO)

PO1: An ability to independently carry out research/investigation and development work to solve practical problems.

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

PO3: An ability to demonstrate expertise over the area as per the specialization of the program.

PO-4: To integrate basic and advance research knowledge for identification and formulation of problem statement to focus on alternate approaches for their solution.

PO-5: To be able to apply the research knowledge for solution to industry specific problems.

PO-6: To impart capabilities in post graduate students of Industrial Engineering and Management to work in cross cutting areas of Operations Management.

PRODUCTION ENGINEERING

Program Educational Objectives (PEOs)

PEO1: To inculcate qualities for long term learning with ethical and societal.

PEO2: To adapt students on sustainable manufacturing and Production Technology conservation of resources.

PEO3: To expose the students to current global scenario on cutting edge technologies related to Production and Industrial Engineering.

PEO4: To enhance the domain knowledge in various areas of Production & Industrial Engineering through examination, seminar, and research projects.

Program Specific Outcomes (PSOs)

The students should be able to,

PSO–1: To develop passion and zeal for creating new manufacturing processes competing on cost, quality and performance.

PSO–2: An ability to solve production and industrial engineering problems using analytical, experimental and numerical skills with a systemic view.

Program Outcomes

PO-1: An ability to independently carry out research / investigation and development work to solve practical problems.

PO-2: An ability to write and present technical report/document.

PO-3: Students should be able to demonstrate a degree of mastery over the area as per the specialization of the program. The mastery should be at a level higher than the requirements in the appropriate bachelor program

PO-4: To integrate basic and advance research knowledge for identification and formulation of problem statement to focus on alternate approaches for their solution.

PO-5: To be able to apply the research knowledge for solution to industry specific problems.

PO-6: To be capable of dealing with manufacturing work in cross cutting areas of Production and Industrial Engineering.

THERMAL ENGINEERING

Program Educational Objectives (PEOs)

PEO1: To inculcate qualities for long term learning with ethical and societal responsibilities.

PEO2: To adapt students on sustainability and conservation of resources.

PEO3: To expose the students to current global scenario on cutting edge technologies related to Thermal Engineering.

PEO4: To enhance the domain knowledge in various areas of Thermal Engineering through examination, seminar, and research projects.

Program: Specific outcome (PSOs)

The students should be able to,

PSO – 1: To develop passion and zeal for creating new thermal systems competing on cost, quality and performance.

PSO – 2: An ability to solve thermal engineering problems using analytical, experimental and numerical skills with a systemic view.

Program Outcomes

PO-1: An ability to independently carry out research / investigation and development work to solve practical problems.

PO-2: An ability to write and present technical report / document.

PO-3: Students should be able to demonstrate a degree of mastery over the area as per the specialization of the program. The mastery should be at a level higher than the requirements in the appropriate bachelor program.

PO-4: To integrate basic and advance research knowledge for identification and formulation of problem statement to focus on alternate approaches for their solution.

PO-5: To be able to apply the research knowledge for solution to industry specific problems.

PO-6: To be capable of dealing with development of systems in cross cutting areas of Thermal Engineering.

ENERGY SYSTEM AND MANAGEMENT

Program Educational Objectives (PEOs)

PEO 1: To develop the capability to analyse the fundamentals of Science and Energy Technology, the engineering problems with a futuristic approach.

PEO 2: To foster a confident and competent post graduate capable of solving real-life practical engineering problems fulfilling society's obligation.

PEO 3: To inculcate an aptitude for identifying and undertaking developmental work both in industry and in an academic environment with emphasis on continuous learning, enabling to excel in competitive participation at a global level.

PEO 4: To nurture and nourish effective communication and interpersonal skills to work in a team with a sense of ethics and moral responsibility for achieving a goal.

Programme Specific Outcomes (PSOs)

PSO 1: Apply software skills in the field of modeling, analysis and system simulation such as MATLAB, ANSYS- CFX, Fluent for performance evaluation and optimization of non-renewable/ renewable energy systems like bio, wind, solar and hybrid systems.

PSO 2: To sustain passion and zeal for real world applications for meeting the challenges of Aatm Nirbhar Bharat.

Program Outcomes (PO)

PO1: An ability to independently carry out research/investigation and development work to solve practical problems.

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

PO3: An ability to demonstrate a degree of command over the area as per the specialization of the program.

PO4: To integrate theoretical and available recent research knowledge for identification & Formulation of problem statement and to focus on alternate approaches for their solution.

PO5: To focus on application of research knowledge for solutions to industry specific problems.

PO6: To impart capabilities to post graduate students of Energy Systems and Management to work in cross cutting areas of Mechanical Engineering.