

**NATIONAL INSTITUTE OF TECHNOLOGY: TIRUCHIRAPPALLI - 620 015**  
**DEPARTMENT OF PRODUCTION ENGINEERING**  
**M. Tech. INDUSTRIAL ENGINEERING & MANAGEMENT**

**Department Vision**

To establish a world class academy for Manufacturing and Industrial Engineering

**Department Mission**

- Curriculum development with state-of-the-art technologies.
- Pursue research interests of manufacturing and industrial engineering.
- Consultancy in design, manufacturing and industrial engineering
- Industry-Institute interaction
- Equipping Laboratories with state-of-the-art equipment.

*Programme Educational Objectives (PEOs):*

PEO 1: Graduates of the programme will be capable of integrating Engineering fundamentals and advanced Industrial Engineering concepts.

PEO 2: Graduates of the programme will be professionally competent for gainful employment in Industrial Engineering and Management functions and sustain future challenges.

*Programme Outcomes (POs):*

<b>M.Tech. – Industrial Engineering &amp; Management</b>		
	<b>Attributes</b>	<b>Programme Outcomes</b>
		On successful completion of the programme, the graduates will be able to
1	Scholarship of Knowledge	Acquire in-depth knowledge of industrial engineering with an ability to define, evaluate, analyse and synthesize existing and new knowledge.
2	Critical Thinking	Analyse complex real time industrial engineering problems critically, apply independent judgement for synthesizing information to make intellectual and/or creative advances for conducting research.
3	Problem Solving	Conceptualize and solve industrial engineering problems and evaluate potential solutions after considering economic and eco-friendly factors.
4	Research Skill	Develop scientific/technological knowledge in industrial engineering domain through literature review and design and analysis of experiments.
5	Usage of modern tools	Apply tools for modelling and simulation of complex system, life cycle assessment, ergonomic assessment, supply chain assessment and data analysis.
6	Collaborative and multi-disciplinary work	Perform collaborative-multidisciplinary industrial engineering research, through self-management and teamwork.

7	Project Management and Finance	Apply engineering and management principles to manage real time projects considering economical and financial factors.
8	Communication	Communicate with the engineering community, and with society at large, regarding complex engineering activities confidently and effectively, such as, being able to comprehend and write effective reports and design documentation by adhering to appropriate standards, make effective presentations, and give and receive clear instructions.
9	Life-long Learning	Recognize the need for, and have the preparation and ability to engage in life-long learning independently, with a high level of enthusiasm and commitment to improve knowledge and competence continuously.
10	Ethical Practices and Social Responsibility	Acquire professional and intellectual integrity, professional code of conduct, ethics of research and scholarship, consideration of the impact of research outcomes on professional practices and an understanding of responsibility to contribute to the community for sustainable development of society.
11	Independent and Reflective Learning	Observe and examine critically the outcomes of one's actions and make corrective measures subsequently, and learn from mistakes without depending on external feedback.