



# **JAI SHRIRAM ENGINEERING COLLEGE**

**TIRUPPUR – 638 660**

Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

Recognized by UGC & Accredited by NAAC and NBA (CSE and ECE)



## **DEPARTMENT OF MECHANICAL ENGINEERING**

### **DEPARTMENT VISION**

To strive for all embracing needs of core industries by educating the rural community students to become professional Engineers of Excellent Eminence.

### **DEPARTMENT MISSION**

- To impart quality education with emerging skills through innovative learner - centric approach.
- To promote cutting - edge research and development through collaboration with core industries.
- To nurture the students with ethical values, creativity and Innovation to become employable Engineers and Entrepreneurs.

### **PROGRAM EDUCATIONAL OBJECTIVES (PEO)**

After 2 to 4 years of graduation, the graduates will:

- Undertake challenges in design and development of Industrial problem solving approach with sound knowledge.
- Broaden their horizons to address entrepreneurial and ethical values to meet the societal needs.
- Expose their ability in team work, effective communication and persist learning.



# JAI SHRIRAM ENGINEERING COLLEGE

TIRUPPUR – 638 660

Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai  
Recognized by UGC & Accredited by NAAC and NBA (CSE and ECE)



## PROGRAM OUTCOMES (PO)

Engineering graduates will be able to:

**PO1: Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.

**PO2: Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

**PO3: Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and 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.

**PO5: Modern tool usage:** Create, select and apply appropriate techniques, resources and modern engineering and IT tools including prediction and modeling to complex 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 the professional engineering practice.

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

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

**PO9: Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

**PO10: Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

**PO11: Project management and finance:** Demonstrate knowledge and understanding of the engineering 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.

**PO12: Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.



# JAI SHRIRAM ENGINEERING COLLEGE

TIRUPPUR – 638 660

Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

Recognized by UGC & Accredited by NAAC and NBA (CSE and ECE)



## PROGRAM SPECIFIC OUTCOMES (PSO)

**The Graduates will be able to:**

**PSO1:** Conduct experiments and simulate the real time complications involved in the field of thermal and design engineering using modern tools.

**PSO1:** Attain excellence in the area of machine building technology, robotics and automation, 3D printing in manufacturing sector for societal and industrial needs.