Department of Production Engineering

National Institute of Technology Tiruchirappalli

Programme Educational Objectives (PEOs):

- 1. Graduates formulate, analyze and solve Manufacturing and Industrial engineering problems.
- 2. Graduates take gainful employment for manufacturing functions.
- 3. Graduates become product and process design professionals for sustainable manufacturing.
- 4. Graduates become entrepreneurs in Manufacturing Engineering sector.

Programme Outcomes (POs)

GRADUATE ATTRIBUTES	PRODUCTION ENGINEERING GRADUATE ATTRIBUTES				
Engineering Knowledge	Graduates will apply knowledge acquired in mathematics, science, engineering and humanities to production engineering problems				
2. Problem Analysis	Graduates will have the ability to define the problems and provide solutions by designing and conducting experiments, interpreting and analyzing data for manufacturing				
3. Design/development of solutions	Graduates will design manufacturing systems that would encompass machining technology, welding technology, metal forming, foundry technology and thermal engineering infrastructure and would meet specifications and requirements as demanded by the customers				
4. Conduct investigations of complex problems	Graduates will apply design and tooling for manufacturing, finite element methods, modeling of manufacturing systems to solve production engineering problems				
5. Modern tool usage	Graduates understand manufacturing technologies like computer controlled processes and management information systems, production management, SCM, ERP and new manufacturing concepts like TPS, agile manufacturing, pull & push system				
6. Engineer & society	Graduates will have the confidence to apply engineering solutions in global and societal contexts				
7. Environment & sustainability	Graduates will understand quantitative modeling and analysis of a broad array of systems-level decision problems concerned with economic efficiency, work design, productivity and quality with environmental focus				

8. Ethics	Graduates should be capable of self-education and clearly understand the value of achieving perfection in their professional endeavors								
9. Individual & team work	Graduates will participate as members of engineering and science laboratory teams, as well as members of multidisciplinary design teams								
10.Communication	Graduates will be proficient in English language in both verbal and written forms which will enable them to compete with graduates of international engineering institutions								
11.Project & finance mgmt.	Graduates will exhibit competency in choosing and applying appropriate resource management technique(s) so as to optimally utilize resources in manufacturing systems								
12.Life-long learning	Graduates will be broadly educated and will have an understanding of the impact of engineering on society and confront contemporary issues								

Correlation between PEOs & POs

		Programme Outcomes (PO)											
		1 – Engineering Knowledge	2 – Problem Analysis	3– Design / Analysis	4 – Complex problemsolvi9ng	5- Modern tool usage	6 – Engineer & Society	7 – Environ. & Sustain.	8 - Ethics	9 - Team work	10 - Communication	11 - Project & finance mgmt.	12 - Life-long learning
	1	X	Χ										
PEOs	2	Χ			Х	Х			Х	X	Х		
	3	Χ		Х	Х	Х		Х	Х	Х	X		Х
	4	X					Х	Х	Х	Х	Х	Х	