

DEPARTMENT OF MECHANICAL ENGINEERING

Attainment of Programme outcomes

POs	Target Level	Attainment Level	Observations
PO1: Engineering knowledge			
1	Attainment can be improved on the basis of the following observations. Observations: 1. Some lateral entry students are not exposed to fundamental in the mathematics /Science subjects before joining their engineering course. 2. Some students find it difficult to understand mathematical based engineering subjects. 3. lack of practice of numerical has been observed.		
Action 1: Special classes for first year student for mathematics ,physics and chemistry Action 2: To motivate the student to do more practice in tutorial class Action 3: More problems are given for practice.			
PO2: Problem analysis:			
2	Attainment can be improved on the basis of the following observations. Observations: 1. Few Students has less orientation in basic of engineering mathematics and science 2. Students sometimes find it difficult to solve the Engineering problems because of lack of practicing in class 3. Basic procedural steps for design are not well conceived.		
Action 1: To give student actual problem to analyse as a case study. Action 2: To motivate the student to go to library /suffering internet for problem analysis. Action 3: Students are encouraged to raise questions which are solved in the lecture/ tutorial.			
PO3 Design/development of solutions :			
3	Attainment can be improved on the basis of the following observations. Observations : 1. Some students find it difficult to solve the engineering problems due to poor past concepts. 2. Lack of adequate knowledge of design and development oriented problems.		
Action 1:To motivate the student to take part in technical event organized by our college as well as outside capuses etc. Action 2:Also motivate to take part in innovating related activity like quize, workshops, seminars, guest lectures etc. Action 3: Emphasis on practical approach using real life problem for teaching. Action 4: Material /Manufacturing Processes are taught with the help of video presentations, real tool dispay in workshop etc.			
PO4 Conduct investigations of complex problems:			
4	Attainment can be improved on the basis of the following observations. Observations : 1. Lack of involvement for investigation of the problems		

	<p>If appear to be difficult for few students.</p> <ol style="list-style-type: none"> 2. Some students find it difficult to use analysis tools to solve the complex engineering problems 3. Some students take more time for solving investigative problem.
<p>Action 1: Take help of specifications and display charts manuals available in the lab. Action 2: Motivate student to use new software Action 3: Analyse data using Ms Excel etc. Action 4: More practical session on solving analytical problems.</p>	
PO5 Modern tool usage:	
5	<p>Attainment can be improved on the basis of the following observations.</p> <p>Observations :</p> <ol style="list-style-type: none"> 1. Use of CADD tools by some students for doing project works as a part of their Degree program. 2. Students were needed to be counseled to use the Design/Analysis tools.
<ol style="list-style-type: none"> 1. Value Added Classes are being conducted using modern tools. 2. Students were given individual systems to work on software. 3. Use of projector for presentation in class rooms. 4. Centre of Excellence on various technologies like Neumatics, Hydrualics, Industiral Automation and RAC. 	
PO6 The engineer and society	
6	<p>Attainment can be improved on the basis of the following observations.</p> <p>Observations :</p> <ol style="list-style-type: none"> 1. Many of the students do not consider social issues in their habits or study. 2. Students are not always aware that they are the part of the common society and they are destined to serve the society. 3. Students often do not understand that all academic excellence will go in vain if it is not contributing to the benefit of the society.
<p>Action 1: To motivate students to participate in social issues like tree plantation, swatch bharat abhiyaan etc. Action 2: To gain knowledge regarding health, safety & legal issues.</p>	
PO7 Environment and sustainability	
7	<p>Attainment can be improved on the basis of the following observations.</p> <p>Observations :</p> <ol style="list-style-type: none"> 1. Students are not properly concerned with the Current social issues. 2. Students lack the understanding that technological development cannot sustain without environmental concern for sustainability.
<p>Action 1: To motivate the student to use resources prudently Action 2: Motivate to learn technology of sustainable development.</p>	

PO8 Ethics	
8	Attainment can be improved on the basis of the following observations. Observations : 1. Some students tend to ignore ethics in engineering, education and management. 2. Students are not clear about the ethical practices in engineering education.
Action 1: More examples on practices of ethics are being practiced by students in special lectures. Action 2: Induction program	
PO9 Individual and team work	
9	Attainment can be improved on the basis of the following observations. Observations : 1. Few students are not showing interest in coordination in team. 2. Lack of interest in other department courses. 3. Students find it difficult to solve the application oriented/practical engineering problems.
Action 1: To motivate student to work in a team through group project. Action 2: Function effectively and help other also. Action 3: Induction program	
PO10 Communication	
10	Attainment can be improved on the basis of the following observations. Observations : 1. Moderate communication skill because of rural background. 2. Moderate presentation skill due to lack of exposure 3. lack of confidence.
Action 1:Extra classes for English improvement Action 2: To motivate students to do presentation Action 3:To take part in group discussion and other activities in extra curricular event.	
PO11 Project management and finance	
11	Attainment can be improved on the basis of the following Observations. Observations : 1. Few students are having lack of exposure in project Management activities 2. Some students are unaware of the impact of project management in mechanical engineering practical applications
1. faculty lecture on project management 2. Assignments are given on project management 3. projects are also given on techno-economic analysis.	
PO12 Life-long learning	
12	Attainment can be improved on the basis of the following observations.

Observations :

1. Students find it difficult to understand concepts for Life long learning
2. Some students are not aware that learning is a never ending process.
3. Students are more interested in marks rather in gaining knowledge.

Action 1: To give the knowledge of latest technology to student.

Action 2: To develop feasibility analysis to choose best practical option.

Action 3: Motivate students to do hand on experiments and project.