

# DEPARTMENT OF PLASTIC & POLYMER ENGINEERING

## POs Attainment Levels and Actions for improvement-

POs	Observations
<b>PO1: Engineering knowledge</b>	
<b>1</b>	<p>Attainment can be improved on the basis of the following observations.</p> <p><b>Observations:</b></p> <ol style="list-style-type: none"> <li>1. Plastic &amp; Polymer Engineering curriculum requires the basic knowledge of chemistry and mathematics. Some of the students find difficulty in understanding fundamentals engineering based on basic science.</li> <li>2. Also Lateral entry Students are not exposed to mathematical basic fundamental in those subjects.</li> </ol>
<p><b>ACTION</b></p> <ul style="list-style-type: none"> <li>• Special remedial classes for basic sciences are provided to the students.</li> <li>• Mathematics tutorials are provided to lateral entry students.</li> </ul>	
<b>PO2: Problem analysis:</b>	
<b>2</b>	<p>Attainment can be improved on the basis of the following observations.</p> <p><b>Observations:</b></p> <ol style="list-style-type: none"> <li>1. Few Students has less orientation in basic of engineering mathematics and science.</li> <li>2. Students sometimes find it difficult to solve the Engineering problems because of lack of practicing in class</li> <li>3. Basic procedural steps for design are not well conceived.</li> </ol>
<p><b>ACTION</b></p> <ul style="list-style-type: none"> <li>• To give student actual problem to analyse as a case study.</li> <li>• Students are encouraged to raise questions which are solved in the lecture/ tutorial.</li> </ul>	
<b>PO3 Design/development of solutions:</b>	
<b>3</b>	<p>Attainment can be improved on the basis of the following observations.</p> <p><b>Observations :</b></p> <ol style="list-style-type: none"> <li>1. Some students find it difficult to solve the engineering problems due to poor past concepts.</li> <li>2. Lack of adequate knowledge of design and development oriented problems.</li> </ol>
<p><b>ACTIONS:</b></p> <ul style="list-style-type: none"> <li>• To motivate the student to take part in technical event organized by our college as well as outside campuses etc.</li> <li>• Also motivate to take part in innovating related activity like quiz, workshops, seminars, guest lectures etc.</li> <li>• Emphasis on practical approach using real life problem for teaching.</li> <li>• Manufacturing Processes are taught with the help of video presentations and real experiences by industrial visits.</li> </ul>	
<b>PO4 Conduct investigations of complex problems:</b>	
<b>4</b>	<p>Attainment can be improved on the basis of the following observations.</p> <p><b>Observations :</b></p> <ol style="list-style-type: none"> <li>1. Lack of involvement for investigation of the problems</li> </ol>

	<p>If appear to be difficult for few students.</p> <ol style="list-style-type: none"> <li>2. Some students find it difficult to use analysis tools to solve the complex engineering problems</li> <li>3. Some students take more time for solving investigative problem.</li> </ol>
<p><b>Actions:</b></p> <ul style="list-style-type: none"> <li>• Students are advised to go through internet surfing as well as literature study of related to investigation in the library.</li> <li>• Students are also advised to visit to relevant research institution/labs/industries.</li> </ul>	
<p><b>P05 Modern tool usage:</b></p>	
5	<p>Attainment can be improved on the basis of the following observations.</p> <p><b>Observations :</b></p> <ol style="list-style-type: none"> <li>1. Use of CADD tools by some students for doing project works as a part of their Degree program.</li> <li>2. Students were needed to be counseled to use the Design/Analysis tools.</li> </ol>
<p><b>Actions:</b></p> <ul style="list-style-type: none"> <li>• Value Added Classes are being conducted using modern tools.</li> <li>• Students were given individual systems to work on software.</li> <li>• Use of projector for presentation in class rooms.</li> <li>• Centre of Excellence on various technologies like Neumatics, Hydrualics, Industiral Automation and RAC.</li> </ul>	
<p><b>P06 The engineer and society</b></p>	
6	<p>Attainment can be improved on the basis of the following observations.</p> <p><b>Observations :</b></p> <ol style="list-style-type: none"> <li>1. Many of the students do not consider social issues in their habits or study.</li> <li>2. Students are not always aware that they are the part of the common society and they are destined to serve the society.</li> <li>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.</li> </ol>
<p><b>Actions:</b></p> <ul style="list-style-type: none"> <li>• Students are provided knowledge in respect of effect of waste plastics &amp; chemicals on health and environment.</li> <li>• To motivate students to participate in social issues like tree plantation, swatch bharat abhiyaan etc.</li> <li>• To gain knowledge regarding health, safety &amp; legal issues.</li> </ul>	
<p><b>P07 Environment and sustainability</b></p>	
7	<p>Attainment can be improved on the basis of the following observations.</p> <p><b>Observations :</b></p> <ol style="list-style-type: none"> <li>1. Students are not properly concerned with the Current social issues.</li> <li>2. Students lack the understanding that technological development cannot sustain without environmental concern for sustainability.</li> </ol>
<p><b>Actions:</b></p> <ul style="list-style-type: none"> <li>• To motivate the student to use resources prudently.</li> </ul>	

	<ul style="list-style-type: none"> <li>To motivate students to take up projects related to plastic waste management in order to reduces negative impact of wastes on environment</li> </ul>
<b>P08 Ethics</b>	
<b>8</b>	<p>Attainment can be improved on the basis of the following observations.</p> <p><b>Observations :</b></p> <ol style="list-style-type: none"> <li>Some students tend to ignore ethics in engineering, education and management.</li> <li>Students are not clear about the ethical practices in engineering education.</li> </ol>
<p><b>Actions:</b></p> <ul style="list-style-type: none"> <li>Faculty advisors guide the students in respect of basic ethics issue.</li> <li>More examples on practices of ethics are being practiced by students in special lectures.</li> <li>Induction program</li> </ul>	
<b>P09 Individual and team work</b>	
<b>9</b>	<p>Attainment can be improved on the basis of the following observations.</p> <p><b>Observations :</b></p> <ol style="list-style-type: none"> <li>Few students are not showing interest in coordination in team.</li> <li>Lack of interest in other department courses.</li> <li>Students find it difficult to solve the application oriented/practical engineering problems.</li> </ol>
<p><b>Actions:</b></p> <ul style="list-style-type: none"> <li>To motivate student to work in a team through group projects.</li> <li>To motivate to resolve the difficulties with the help of other students.</li> <li>Induction program</li> </ul>	
<b>P010 Communication</b>	
<b>10</b>	<p>Attainment can be improved on the basis of the following observations.</p> <p><b>Observations :</b></p> <ol style="list-style-type: none"> <li>Moderate communication skill because of rural background.</li> <li>Moderate presentation skill due to lack of exposure</li> <li>lack of confidence.</li> </ol>
<p><b>Action :</b></p> <ul style="list-style-type: none"> <li>Extra classes for English improvement</li> <li>To motivate students to give presentation on various topics/ subject.</li> <li>To Motivate students to participate in group discussion and other activities in extra curricular events.</li> </ul>	
<b>P011 Project management and finance</b>	
<b>11</b>	<p>Attainment can be improved on the basis of the following observations.</p> <p><b>Observations :</b></p> <ol style="list-style-type: none"> <li>Few students are having lack of exposure in project Management activities</li> <li>Some students are unaware of the impact of project management in plastic &amp; polymer engineering practical applications</li> </ol>
<p><b>Actions:</b></p> <ul style="list-style-type: none"> <li>Faculty take lectures on project management</li> <li>Assignments are given on project management</li> <li>Projects are also assigned on techno-economic analysis.</li> </ul>	
<b>P012 Life-long learning</b>	

<b>12</b>	Attainment can be improved on the basis of the following observations. <b>Observations :</b> <b>1.</b> Students find it difficult to understand concepts for Life long learning <b>2.</b> Some students are not aware that learning is a never ending process. <b>3.</b> Students are more interested in marks rather in gaining knowledge.
<b>Actions:</b> <ul style="list-style-type: none"><li>• To give the knowledge of latest technology to student.</li><li>• To develop feasibility analysis to choose best practical option.</li><li>• Motivate students to do hand on experiments and project.</li></ul>	