

**DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING**

**Attainment of Programme outcomes**

POs	Observations
<b>PO1: Engineering knowledge</b>	
1	<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 lateral entry students are not exposed to fundamental in the mathematics/Science subjects before joining their engineering course.</li> <li>2. Some students find it difficult to understand mathematical based engineering subjects.</li> <li>3. lack of practice of numerical has been observed.</li> </ol>
<p><b>Action 1: Special classes for first year student for mathematics, physics and chemistry</b></p> <p><b>Action 2: To motivate the student to do more practice in tutorial class</b></p> <p><b>Action 3: More problems are given for practice.</b></p>	
<b>PO2: Problem analysis:</b>	
2	<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 1: To give student actual problem to analyse as a case study.</b></p> <p><b>Action 2: To motivate the student to go to library /suffering internet for problem analysis.</b></p> <p><b>Action 3: Students are encouraged to ask questions which are solved in the lecture/ tutorial.</b></p>	
<b>PO3 Design/development of solutions:</b>	
3	<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>Action 1: To motivate the student to take part in technical event organized by our college as well as outside capuses etc.</b></p> <p><b>Action 2: Also motivate to take part in innovating related activity like quize, workshops, seminars, guest lectures etc.</b></p> <p><b>Action 3: Emphasis on practical approach using real life problem for teaching.</b></p> <p><b>Action 4: Fabrication Processes are taught with the help of video presentations, real tool display in workshop etc.</b></p>	
<b>PO4 Conduct investigations of complex problems:</b>	
4	<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>Action 1: Take help of specifications and display charts manuals available in the lab.</b></p> <p><b>Action 2: Motivate student to use new software</b></p> <p><b>Action 3: Analyse data using Ms Excel etc.</b></p> <p><b>Action 4: More practical session on solving analytical problems.</b></p>	
<p><b>PO5 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 sclab, ocean star, optsim 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>
<ol style="list-style-type: none"> <li>1. Value Added Classes are being conducted using modern tools.</li> <li>2. Students were given individual systems to work on software.</li> <li>3. Use of projector for presentation in class rooms.</li> <li>4. Centre of Excellence on various technologies like PLC SCADA, Pneumatics, Hydraulics, Industrial Automation.</li> </ol>	
<p><b>PO6 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>Action 1: To motivate students to participate in social issues like tree plantation, swatch bharatabhiyaanetc, blood donation camp</b></p> <p><b>Action 2: To gain knowledge regarding health, safety &amp; legal issues.</b></p>	
<p><b>PO7 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> </ol>

	2. Students lack the understanding that technological development cannot sustain without environmental concern for sustainability.
<b>Action 1: To motivate the student to use resources prudently</b> <b>Action 2: Motivate to learn technology of sustainable development.</b>	
<b>PO8 Ethics</b>	
8	Attainment can be improved on the basis of the following observations. <b>Observations :</b> 1. Some students tend to ignore ethics in engineering, education and management. 2. Students are not clear about the ethical practices in engineering education.
<b>Action 1: More examples on practices of ethics are being practiced by students in special lectures, regular monitoring by faculty advisors, wardens and rules for going outside college through proper permissions</b> <b>Action 2: Conduction of Induction program</b>	
<b>PO9 Individual and team work</b>	
9	Attainment can be improved on the basis of the following observations. <b>Observations :</b> 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.
<b>Action 1: To motivate student to work in a team through group project.</b> <b>Action 2: Function effectively and help other also.</b> <b>Action 3: Induction program</b>	
<b>PO10 Communication</b>	
10	Attainment can be improved on the basis of the following observations. <b>Observations :</b> 1. Moderate communication skill because of rural background. 2. Moderate presentation skill due to lack of exposure 3. lack of confidence.
<b>Action 1:Extra classes for English improvement</b> <b>Action 2: To motivate students to do presentation and seminars as a part of curriculum.</b> <b>Action 3:To take part in group discussion and other activities in extracurricular event.</b>	
<b>PO11 Project management and finance</b>	
11	Attainment can be improved on the basis of the following Observations. <b>Observations :</b> 1. Few students are having lack of exposure in project Management activities

	2. Some students are unaware of the impact of project management in Electronics & Telecommunication Engineering practical applications
<b>1. faculty lecture on project management.</b> <b>2. Assignments are given on project management</b> <b>3. Projects are also given on techno-economic analysis.</b> <b>4.financial support in the form of hardware and tools facilities through DIY Lab and financial support to participate in External National Level Competitions</b>	
<b>PO12 Life-long learning</b>	
<b>12</b>	Attainment can be improved on the basis of the following observations. <b>Observations :</b> <b>1. Students find it difficult to understand concepts for Life long learning</b> <b>2. Some students are not aware that learning is a never ending process.</b> <b>3. Students are more interested in marks rather in gaining knowledge.</b>
<b>Action 1: Assigning projects which are real life applications</b> <b>Action 2: To develop feasibility analysis to choose best practical option.</b> <b>Action 3: Motivate students to do hand on experiments and project.</b>	