






**VIGNAN'S LARA**




**INSTITUTE OF TECHNOLOGY & SCIENCE**


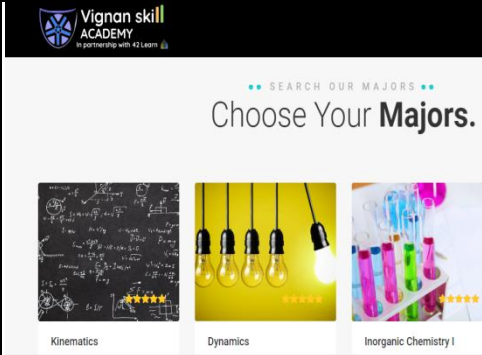

Approved by AICTE New Delhi & Affiliated to JNTUK Kakinada  
Vadlamudi - 522 213, Guntur District


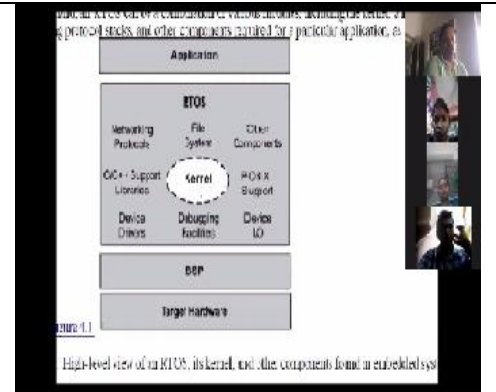
## Department of Mechanical Engineering


Innovations By the faculty in Teaching Learning			
Innovative method	Process	Outcomes	Supporting Information
<b>Flipped Class room</b>	<ul style="list-style-type: none"><li>• To make the students more attentive and participative</li><li>• Relevant material is provided in advance.</li><li>• It enables the students towards self-learning.</li></ul>	<ul style="list-style-type: none"><li>• The level of understanding and interpretation improves.</li><li>• Able to apply the knowledge in real time applications.</li></ul>	 <p>Subject material / Video Lecture &amp; Flipped Class room (<a href="https://youtube.com/playlist?list=PLJBJM007sTgwZ_y06hTEME4PWrfI2JPx2">https://youtube.com/playlist?list=PLJBJM007sTgwZ_y06hTEME4PWrfI2JPx2</a>)</p>


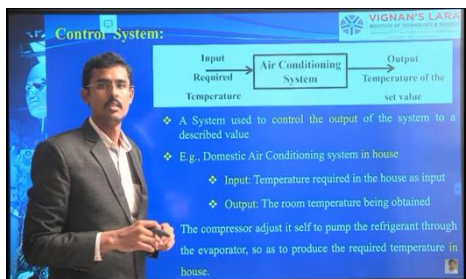
<p><b>Peer Learning</b></p>	<ul style="list-style-type: none"> <li>• Identification of student mentors based on Academic performance</li> <li>• Mentors support mentee, who are lagging in their academics.</li> </ul>	<ul style="list-style-type: none"> <li>• Mentees are going to be attaining improvements in their academics.</li> <li>• Leadership quality is enabled among the mentors.</li> </ul>	 <p>Active participation of students in Peer Learning</p>
<p><b>Online learning (Self Learning)</b></p>	<ul style="list-style-type: none"> <li>• Students are motivated to learn through NPTEL, Coursera etc.,</li> <li>• The students are evaluated on a common learning platform.</li> </ul>	<ul style="list-style-type: none"> <li>• The students are globally competitive.</li> <li>• Skills upgrade through multiple teaching learning methodologies.</li> </ul>	 <p>Online Course certificate</p>


<p style="text-align: center;"><b>RPT</b> <b>(Revision Practice Test)</b></p>	<ul style="list-style-type: none"> <li>• Revise the topics unit wise by faculty.</li> <li>• Practice the topics by students conduct the test after practicing the topics</li> </ul>	<ul style="list-style-type: none"> <li>• Students are able to pass and obtain merit grades in exams.</li> </ul>	 <p style="text-align: center;">Students involved in RPT</p>
<p style="text-align: center;"><b>Blended learning</b></p>	<ul style="list-style-type: none"> <li>• Blended learning is an approach that combines online educational material with face-to-face interaction.</li> <li>• It provides multiple opportunities through online interaction with traditional classroom methods.</li> </ul>	<ul style="list-style-type: none"> <li>• Provide Access to global resources and materials that meet the students' level of knowledge and interest.</li> <li>• Self-Pacing increases satisfaction.</li> <li>• Better information retention reduces the stress level in slow and quick learners.</li> </ul>	  <p style="text-align: center;">Students engaged in blended learning</p>

<p><b>VLITS Moodle</b> <b>(Vignan skill Academy)</b></p> 	<ul style="list-style-type: none"> <li>• Provide easy access to the content.</li> <li>• To provide web based personalized environment for easy learning.</li> <li>• Lecture notes, PPTs, Video links, Previous question papers, GATE question papers are uploaded in Moodle server.</li> </ul>	<ul style="list-style-type: none"> <li>• The students are able to access the curriculum study material</li> <li>• Facilitates the students to access content from any location.</li> <li>• Helps the teachers to upload content into a single repository.</li> <li>• Pass percentage rate is increased by adapting this practice.</li> </ul>	 <p><a href="https://vignanskills.in/">(https://vignanskills.in/)</a></p> <p>Accessing course materials using Moodle</p>
<p><b>Mini and Major technical projects</b></p>	<ul style="list-style-type: none"> <li>• To expand technical understandings through development in terms of software solutions and hardware implementation towards industrial/ societal problems.</li> </ul>	<ul style="list-style-type: none"> <li>• Create opportunities to explore theory</li> <li>• To research and present a pilot project with possibility of further development</li> <li>• To test technical insight</li> <li>• To apply intellectual learning, or to challenge the skills in a particular field</li> </ul>	 <p>Students participate in Projects</p>

<p><b>Modular courses</b></p>	<ul style="list-style-type: none"> <li>• Courses are offered by the industry to make the students skill oriented</li> <li>• Elite courses are offered during summer breaks for advanced learners.</li> </ul>	<ul style="list-style-type: none"> <li>• Gap is able to fill between the industry and academics in order to make students industry ready.</li> </ul>	 <p>Students during modular Courses</p>
<p><b>Virtual class</b></p>	<ul style="list-style-type: none"> <li>• Voluntarily a paradigm shift took place in the field of education and flipped to online teaching methodologies to fill the gap due to COVID-19.</li> <li>• Virtual platforms like ZOOM are used to interact with the students, led by a virtual class room</li> </ul>	<ul style="list-style-type: none"> <li>• No deviation of academic calendar</li> <li>• Both faculty and students experienced virtual classes thus beat COVID-19</li> <li>• It is observed that absenteeism is minimized during these sessions</li> </ul>	 <p>Virtual class</p>

<p><b>Student Seminars</b></p>	<ul style="list-style-type: none"> <li>• The overall objective of this activity is to motivate students for Self-Study and Group Study.</li> </ul>	<ul style="list-style-type: none"> <li>• This best practice enhances Listening ability. Working in a team builds Leadership quality in students</li> <li>• Team building and team spirit of students grows as they work in a Team. The Communication Skills are improved by Oral presentations in seminars.</li> <li>• Sharing of Knowledge happens while preparing. Students learn management skill. Students will be able to deal with conflicting opinions.</li> <li>• Students participated in various seminars by using visual aids.</li> </ul>	 <p style="text-align: center;">Student Seminar</p>
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<p><b>Group Discussion</b></p>	<ul style="list-style-type: none"> <li>To provide students an insight regarding internal working of companies and industries.</li> </ul>	<ul style="list-style-type: none"> <li>Learn from others experiences and background knowledge.</li> <li>Students developed listening and interpersonal skills.</li> <li>Identify and sort out the communication opinions</li> </ul>	 <p>Group Discussion</p>
<p><b>Power Point Presentation</b></p>	<ul style="list-style-type: none"> <li>To enhance the overall comprehension of students and allows teachers to present their lessons in more dynamic way</li> </ul>	<ul style="list-style-type: none"> <li>It provides the ability to equip presentations with different types of media - including images, animations, and much more.</li> <li>This enhances students' abilities to retain what is being taught, especially to those who are visual learners.</li> <li>Teachers can focus on the class and interacting with the students instead of writing on a board, as the text &amp; entire presentation are already there in the form of PowerPoint</li> </ul>	 <p>Power Point Presentation</p>

<p><b>Industrial Visits</b></p>	<ul style="list-style-type: none"><li>• To provide students an insight regarding internal working of companies and industries</li></ul>	<ul style="list-style-type: none"><li>• Industrial visit is considered as one of the tactical methods of teaching.</li><li>• The reason behind this is to help students to know things on ground practically through interaction, working methods and its practices.</li><li>• It also provides a good opportunity to the students and gain awareness about industrial practices. Through industrial visits students get to know how about new technologies</li></ul>	 <p>Industrial visit</p>
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