



**SRI VASAVI INSTITUTE OF ENGINEERING & TECHNOLOGY**

**DEPARTMENT OF MECHANICAL ENGINEERING**

**COURSE OUTCOMES**

Academic year-2019-2020

Year/sem- IV-I

<b>CO Number</b>	<b>Course Outcome(CO) Statement- At the end of the Course, the students will be able to</b>	<b>Blooms Taxonomy</b>
<b>Mechatronics (C411)</b>		
C411.1	Interpret the knowledge of mechatronics systems	Apply
C411.2	Recognize the Solid state electronic devices	understand
C411.3	Recognize the Hydraulic and pneumatic actuating systems	understand
C411.4	Interpret the knowledge of Digital electronics and systems	Apply
C411.5	Distinguish the System and interfacing and data acquisition	Analyze
C411.6	Examine the Dynamic models and analogies	Analyze
<b>CAD/CAM (C412)</b>		
C412.1	Implement the basic fundamentals of CAD & CAM.	Apply
C412.2	Describe the mathematical basis in the technique of representation of parametric curves, wireframe, surfaces & solid modeling and can visualize the components	Understand
C412.3	Explain the difference between NC's and CNC's and he can also know the methods involved in part programming.	Understand
C412.4	Examine the use of GT and CAPP for the production development	Analyze
C412.5	Identify the importance of CAQC at different contact and non contact inspection methods to improve the quality control	Understand
C412.6	Implement the various elements and their activities in the CIM systems	Apply
<b>Finite Element Methods (C413)</b>		
C413.1	Explain the concepts behind Variational methods and weighted residual methods in FEM	Understand
C413.2	Select the proper element type, element length, Stiffness matrix, Interpolation function and Boundary conditions	Evaluate
C413.3	Distinguish the application and characteristics of FEA elements such as Trusses and beams.	Analyze
C413.4	Solve two dimensional stress analysis using constant strain triangle	Apply
C413.5	Identify the higher order iso parametric elements, Implement the finite element analysis for 2D four noded element	Apply
C413.6	Solve dynamic and steady state heat transfer problems using FEM	Apply
<b>Power plant Engineering (C414)</b>		
C414.1	explain energy sources and acquire overall knowledge on handling	Understand

	and operation of steam power plant	
C414.2	differentiate prime movers and auxiliaries and enhance power generation	Analyze
C414.3	explain Basic knowledge of hydroelectric power projects construction and handling	Understand
C414.4	explain basic working principles of new clear power and equipments and also environmental safety considerations	Understand
C414.5	explain combined operations of different power generating plants economics and importance of process control instruments	Understand
C414.6	Calculate the power generation plant and other parameters	Apply
<b>Additive Manufacturing (C415)</b>		
C415.1	Interpret the knowledge of Rapid prototyping systems	Apply
C415.2	Explain the Solid based rapid prototyping systems	Understand
C415.3	Differentiate the powder based rapid prototyping systems from other rapid prototyping systems.	Analyze
C415.4	Interpret the knowledge of Rapid tooling	Apply
C415.5	Distinguish the rapid prototyping data formats and software's.	Analyze
C415.6	Select the appropriate rapid prototyping system for suitable application.	Evaluate
<b>Gas Dynamics &amp; Jet Propulsion (C416)</b>		
C416.1	Describe the basic concepts of Gas dynamics	Understand
C416.2	Analyze Isentropic flow of an ideal gas	Analyze
C416.3	Analyze the flow through constant area ducts with friction and heat transfer.	Analyze
C416.4	Analyze flows with normal and oblique shocks.	Analyze
C416.5	Compare the working of various jet engines and calculate thrust & efficiency in jet propulsion using gas dynamics principles.	Analyze
C416.6	Compare the working of various jet engines and calculate efficiency in rocket propulsion	Analyze

Faculty co-ordinator

HOD