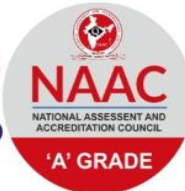




**VISAKHA**  
**INSTITUTE OF ENGINEERING & TECHNOLOGY**  
 Approved by AICTE NEW DELHI  
 (Affiliated to JNTUGV, VIZIANAGARAM)  
 88th Division, Narava, GVMC, Visakhapatnam-530027  
**DIPLOMA | ENGINEERING | MANAGEMENT**



**COLLEGE CODE**  
**VSPT**

<b>DEPARTMENT OF MECHANICAL ENGINEERING</b>		
<b>YEAR: II<sup>nd</sup></b>		<b>SEMESTER: IInd</b>
		<b>COURSE OUTCOMES(R20)</b>
<b>S.No</b>	<b>COURSE CODE: R2022031</b>	<b>COURSE NAME: MATERIALS SCIENCE &amp; METALLURGY</b>
1	<b>CO1:</b> Understand the crystalline structure of different metals and study the stability of phases in different alloy systems.	
	<b>CO2:</b> Study the behavior of ferrous and non ferrous metals and alloys and their application in different domains	
	<b>CO3:</b> Able to understand the effect of heat treatment, addition of alloying elements on properties of ferrous metals.	
	<b>CO4:</b> Grasp the methods of making of metal powders and applications of powder metallurgy	
	<b>CO5:</b> Comprehend the properties and applications of ceramic, composites and other advanced methods.	
	<b>COURSE CODE: R2022011</b>	<b>COURSE NAME: COMPLEX VARIABLES AND STATISTICAL METHODS</b>
2	<b>CO1:</b> Apply Cauchy-Riemann equations to complex functions in order to determine whether a given continuous function is analytic (L3)	
	<b>CO2:</b> Find the differentiation and integration of complex functions used in engineering problems (L5)	
	<b>CO3:</b> Make use of the Cauchy residue theorem to evaluate certain integrals (L3)	
	<b>CO4:</b> Apply discrete and continuous probability distributions (L3)	
	<b>CO5:</b> Design the components of a classical hypothesis test (L6)	
	<b>CO6:</b> Infer the statistical inferential methods based on small and large sampling tests (L4)	
	<b>COURSE CODE: R2022032</b>	<b>COURSE NAME: DYNAMICS OF MACHINERY</b>
3	<b>CO1:</b> To compute the frictional losses and transmission in clutches, brakes and dynamometers	
	<b>CO2:</b> To determine the effect of gyroscopic couple in motor vehicles, ships and aeroplanes	
	<b>CO3:</b> To analyze the forces in four bar and slider crank mechanisms and design a fly wheel	
	<b>CO4:</b> To determine the rotary unbalanced mass in reciprocating equipment	
	<b>CO5:</b> To determine the unbalanced forces and couples in reciprocating and radial engines	
	<b>CO6:</b> To determine the natural frequencies of discrete systems undergoing longitudinal, torsional and transverse vibrations.	
	<b>COURSE CODE: R2022033</b>	<b>COURSE NAME: THERMAL ENGINEERING - I</b>
4	<b>CO1:</b> Derive the actual cycle from fuel-air cycle and air- standard cycle for all practical applications.	
	<b>CO2:</b> Explain working principle and various components of IC engine	
	<b>CO3:</b> Explain combustion phenomenon of CI and SI engines and their impact on engine variables.	
	<b>CO4:</b> Analyze the performance of an IC engine based on the performance parameters.	
	<b>CO5:</b> Explain the cycles and systems of a gas turbine and determine the efficiency of gas turbine.	
	<b>CO6:</b> Explain the applications and working principle of rockets and jet propulsion.	

	<b>COURSE CODE: R2022034</b>	<b>COURSE NAME: INDUSTRIAL ENGINEERING AND MANAGEMENT</b>
5	<b>CO1:</b> Design and conduct experiments, analyse, interpret data and synthesize valid conclusions	
	<b>CO2:</b> Design a system, component, or process, and synthesize solutions to achieve desired needs	
	<b>CO3:</b> Use the techniques, skills, and modern engineering tools necessary for engineering practice with appropriate considerations for public health and safety, cultural, societal, and environmental constraints.	
	<b>CO4:</b> Function effectively within multi-disciplinary teams and understand the fundamental precepts of effective project management	
	<b>COURSE CODE: R2022036</b>	<b>COURSE NAME: MACHINE DRAWING PRACTICE</b>
6	<b>CO1:</b> Draw and represent standard dimensions of different mechanical fasteners and joints and Couplings.	
	<b>CO2:</b> Draw different types of bearings showing different components.	
	<b>CO3:</b> Assemble components of a machine part and draw the sectional assembly drawing showing the dimensions of all the components of the assembly as per bill of materials	
	<b>CO4:</b> Select and represent fits and geometrical form of different mating parts in assembly drawings.	
	<b>CO5:</b> To prepare manufacturing drawings indicating fits, tolerances, surface finish and surface treatment requirements.	

HOD

PRINCIPAL