STRUCTURAL ENGINEERING

ATTAINMENT OF COURSE OUTCOME - ACTION TAKEN REPORT

Name of the faculty:	**Dr. JSR PRASAD**	Department:	**Structural Engineering**
Regulation:	**IARE - PG21**	Batch:	**2021-2023**
Course Name:	**Advanced Solid Mechanics**	Course Code:	**BSTC02**
Semester:	**I**	Target Value:	**60% (1.8)**

Attainment of COs:

	Course Outcome	Direct Attainment	Indirect Attainment	Overall Attainment	Observation
CO1	Explain theory of elasticity including strain/displacement and Hooke's law relationships for analysing the structures with in elastic range.	0.30	2.20	0.7	Not Attained
CO2	Develop constitutive relationships between stress and strain in linearly elastic solid for analysing the stresses in the field.	0.90	1.90	1.1	Not Attained
CO3	Analyze the Stresses and Strains, Strain Displacement and Compatibility Relations for Boundary Value Problems in the Principal Directions.	0.90	2.30	1.2	Not Attained
CO4	Explain the Plane Stress and Plane Strain Problems using Airy's stress Function and Two-Dimensional Problems in Polar Coordinates.	0.90	2.30	1.2	Not Attained
CO5	Analyze boundary value problems using Modified Galerkin Method.	0.00	2.30	0.5	Not Attained
CO6	Examine the properties of ideally plastic solids using different yield criterion.	0.30	2.50	0.7	Not Attained

Action Taken Report: (To be filled by the concerned faculty / course coordinator)

CO1: Employed graphical representations of stress–strain curves to distinguish elastic limits and applicability of theory.

CO2: Conducted a guest lecture on "Sustainability trends, global risks, and building a better world through application of the Envision sustainability rating system to infrastructure projects" to explain practical development of stress–strain constitutive relationships in elastic materials.

CO3: Integrated MATLAB/Excel-based demonstrations for computation of stresses and strains in boundary value problems.
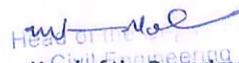
CO4: Encouraged discussions on the practical significance of plane stress/strain assumptions in structural and mechanical components.

CO5: Demonstrated step-by-step formulation of weak form equations for simple boundary value problems.

CO6: Assigned problem sets highlighting differences in predictions between various yield criteria.

Course Coordinator

Mentor

Head of the Department
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