INSTITUTE OF AERONAUTICAL ENGINEERING
(Autonomous)
Dundigal, Hyderabad - 500043, Telangana

STRUCTURAL ENGINEERING
ATTAINMENT OF COURSE OUTCOME - ACTION TAKEN REPORT

Name of the faculty:	**Dr. VENU MALAGAVELLI**	Department:	**Structural Engineering**
Regulation:	**IARE - R18**	Batch:	**2020-2022**
Course Name:	**ADVANCED STRUCTURAL ANALYSIS**	Course Code:	**BSTB01**
Semester:	**I**	Target Value:	**60% (1.8)**

Attainment of COs:

	Course Outcome	Direct Attainment	Indirect Attainment	Overall Attainment	Observation
CO1	Explain the concepts of the static and kinematic indeterminacy of structures for analyzing the structures subjected to different loads	0.90	2.50	1.2	Not Attained
CO2	Analyze continuous beams, portal frames for the given loading conditions using the stiffness, flexibility, approximate methods for ensuring structural efficiency	0.90	2.50	1.2	Not Attained
CO3	Analyze member forces due to applied loads, lack of fit and temperature changes for the indeterminate trusses	0.90	2.40	1.2	Not Attained
CO4	Apply the concept of stiffness matrix equations in global coordinate system with boundary condition for analysing member forces in beams and frame structures.	0.90	2.40	1.2	Not Attained
CO5	Explain the shape function concepts of one and two-dimensional elements for enriching knowledge on stiffness matrix.	0.90	2.40	1.2	Not Attained
CO6	Make use of modified galerkin method for computing approximate solution of one-dimensional boundary value problems	0.90	2.40	1.2	Not Attained

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

CO1: Organized step-by-step problem-solving sessions to identify redundancies and degrees of freedom in structural systems.
CO2: Conducted classroom lectures on analysis of continuous beams and portal frames using stiffness, flexibility, and approximate methods under various loading conditions.
CO3: Assigned numerical problems and home assignments emphasizing accurate force calculation and sign conventions.
CO4: Emphasized correct application of boundary conditions to obtain accurate displacements and member forces.
CO5: Introduced shape functions for two-dimensional elements such as triangular and quadrilateral elements with examples.
CO6: Demonstrated application of the modified Galerkin method through solved numerical examples.

Course Coordinator   **Mentor**   **Head of the Department**
Civil Engineering
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