



INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

Dundigal, Hyderabad - 500043, Telangana

STRUCTURAL ENGINEERING

ATTAINMENT OF COURSE OUTCOME - ACTION TAKEN REPORT

Name of the faculty:	Ms. SURBHI R THAREWAL	Department:	Structural Engineering
Regulation:	IARE - PG21	Batch:	2021-2023
Course Name:	Advanced Structural Analysis	Course Code:	BSTC01
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.	0.60	2.40	1	Not Attained
CO2	Analyze continuous beams, portal frames for the given loading conditions using the stiffness, flexibility, approximate methods for ensuring structural efficiency.	0.60	2.30	0.9	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 analyzing 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.	0.60	2.20	0.9	Not Attained
CO6	Make use of modified galerkin method for computing approximate solution of one-dimensional boundary value problems.	0.90	2.10	1.1	Not Attained

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

CO1: Conducted a seminar on "Construction Technologies for Speedy Delivery of Structures" explaining static and kinematic indeterminacy concepts through real construction case studies, highlighting how indeterminate systems improve load redistribution, structural safety, and rapid execution under varying loading conditions.

CO2: Assigned weekly numerical assignments focusing on load combinations and support conditions for continuous beams and frames.

CO3: Organized guided problem-solving sessions using compatibility and equilibrium conditions for indeterminate trusses.

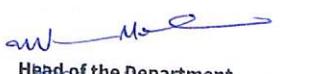
CO4: Conducted tutorial sessions on the systematic application of boundary conditions (supports, restraints, releases) to reduce global stiffness matrices correctly.

CO5: Used graphical visualization to show nodal displacement variation governed by shape functions in 1D and 2D elements.

CO6: Encouraged mini-assignments where students applied the modified Galerkin method to real-life engineering boundary value problems.


Course Coordinator


Mentor


Head of the Department
Civil Engineering
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