



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: | 2019-2021 |
| 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 | 2.30 | 2.80 | 2.4 | Attained |
| CO2 Analyze continuous beams, portal frames for the given loading conditions using the stiffness, flexibility, approximate methods for ensuring structural efficiency | 3.00 | 2.40 | 2.9 | Attained |
| CO3 Analyze member forces due to applied loads, lack of fit and temperature changes for the indeterminate trusses | 3.00 | 2.50 | 2.9 | 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. | 2.10 | 0.00 | 1.7 | Not Attained |
| CO5 Explain the shape function concepts of one and two-dimensional elements for enriching knowledge on stiffness matrix. | 2.10 | 0.00 | 1.7 | Not Attained |
| CO6 Make use of modified galerkin method for computing approximate solution of one-dimensional boundary value problems | 2.10 | 0.00 | 1.7 | Not Attained |

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


CO4: Organized guided problem-solving sessions where students applied boundary constraints and computed member forces step-by-step using stiffness method formulations.

CO5: Provided numerical assignments focused on interpolation functions and their role in stiffness matrix development.

CO6: Arranged hands-on tutorials using MATLAB to compare analytical and Modified Galerkin solutions for one-dimensional problems.


Course Coordinator


Mentor


Head of the Department

Civil Engineering

INSTITUTE OF AERONAUTICAL ENGINEERING

Dundigal, Hyderabad