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

CIVIL ENGINEERING

ATTAINMENT OF COURSE OUTCOME - ACTION TAKEN REPORT

Name of the faculty:	**Dr. PRAVEENA RAO**	Department:	**Civil Engineering**
Regulation:	**IARE - UG20**	Batch:	**2021-2025**
Course Name:	**Prestressed Concrete Structures**	Course Code:	**ACEC40**
Semester:	**VII**	Target Value:	**60% (1.8)**

Attainment of COs:

	Course Outcome	Direct Attainment	Indirect Attainment	Overall Attainment	Observation
CO1	Explain the concept of methods of pre and post tensioning and the systems of prestressing for the designing of prestressed concrete structural elements.	0.90	2.20	1.2	Not Attained
CO2	Estimate the losses in the prestress and post tensioned members for the efficient design of prestressed concrete structures. .	1.60	2.20	1.7	Not Attained
CO3	Analyse prestressed concrete structural elements subjected to flexure for the design purpose.	1.60	2.20	1.7	Not Attained
CO4	Design prestressed concrete structural elements subjected to shear using Indian standard code method.	0.90	2.20	1.2	Not Attained
CO5	Apply the concepts of transfer of prestress in pre and post tensioned members through bond for effective utilisation of prestressing force.	0.90	2.10	1.1	Not Attained
CO6	Design the composite prestressed concrete structural elements subjected to flexure and shear for designing multi storied structures.	0.90	2.20	1.2	Not Attained

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

CO1: Arranged interactive classroom discussions on selecting appropriate prestressing systems for different structural scenarios.
CO2: Organized problem-solving sessions where students calculated immediate and time-dependent losses such as elastic shortening, creep, shrinkage, and relaxation.
CO3: Conducted laboratory sessions on flexural testing of prestressed concrete beams to observe deflection and cracking behavior.
CO4: Arranged case study discussions of prestressed concrete bridges and slabs, focusing on shear design challenges.
CO5: Conducted a seminar on "Recent Developments in Digital Transformation and Intelligent Infrastructure for Structural Health Monitoring" in pre- and post-tensioned members using smart sensors and IoT-enabled instrumentation.
CO6: Arranged interactive software-based design exercises to simulate composite member behavior in multi-storied structures.

Course Coordinator

Mentor

Head of the Department

Head of the Department
Civil Engineering
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