



INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

Dundigal, Hyderabad - 500043, Telangana

STRUCTURAL ENGINEERING

ATTAINMENT OF COURSE OUTCOME - ACTION TAKEN REPORT

Name of the faculty:	Dr. R RAMYA SWETHA	Department:	Structural Engineering
Regulation:	IARE - PG21	Batch:	2022-2024
Course Name:	Structural Dynamics	Course Code:	BSTC14
Semester:	II	Target Value:	60% (1.8)

Attainment of COs:

	Course Outcome	Direct Attainment	Indirect Attainment	Overall Attainment	Observation
CO1	Explain the concepts of equation of motion of a dynamic system and different loads acting on the structures for understanding the behavior of structures.	3.00	2.30	2.9	Attained
CO2	Outline the concept of damped vibrations of single degree freedom systems for the analysis of structures subjected to dynamic loads.	2.30	2.00	2.2	Attained
CO3	Develop the expressions for response of single degree freedom systems based on loading function for the response of structure used in design.	0.60	2.30	0.9	Not Attained
CO4	Develop the equations of structural response to dynamic loads using Duhamel's integral and fourier analysis.	0.90	2.60	1.2	Not Attained
CO5	Analyse the two-degree freedom systems subjected to free and forced vibrations for the design purpose.	- 0.90	2.00	1.1	Not Attained
CO6	Analyse the multiple degree of freedom systems to know the natural frequencies, modes and mode shapes using orthogonality and normality principles and superposition method.	0.90	2.20	1.2	Not Attained

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

CO3: Arranged a guest lecture on "Dynamic Analysis and Design of Seismic Resistant Buildings for Safety" to demonstrate the development and application of response expressions for single degree of freedom systems under various loading functions used in structural design.

CO4: Derived step-by-step response equations using Duhamel's integral for single-degree-of-freedom systems.

CO5: Organized problem-solving sessions to compute dynamic response under harmonic and transient excitations.

CO6: Assigned numerical exercises to practice MDOF system analysis using both analytical and matrix methods.

Course Coordinator

Mentor

Head of the Department

Head of the Dep.

Civil Engineering

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