



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:	2018-2020
Course Name:	STRUCTURAL DYNAMICS	Course Code:	BSTB12
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.	0.90	2.40	1.2	Not Attained
CO2	Outline the concept of damped vibrations of single degree freedom systems for the analysis of structures subjected to dynamic loads.	0.90	2.30	1.2	Not Attained
CO3	Develop the expressions for response of single degree freedom systems based on loading function for the response of structure used in design.	0.90	2.60	1.2	Not Attained
CO4	Develop the equations of structural response to dynamic loads using Duhamel's integral and fourier analysis.	0.90	2.20	1.2	Not Attained
CO5	Analyse the two-degree freedom systems subjected to free and forced vibrations for the design purpose.	0.90	2.30	1.2	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	2.40	1.2	Not Attained

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

CO1: Conducted classroom demonstrations explaining single and multi-degree-of-freedom equations of motion for dynamic structural systems.

CO2: Provided numerical worksheets and assignments focused on evaluating dynamic response parameters such as amplitude decay and phase angle.

CO3: Arranged MATLAB-based tutorials to simulate response of SDOF systems and compare analytical solutions with numerical results.

CO4: Delivered a seminar on "Dynamic Response Analysis Using Duhamel's Integral and Fourier Methods" with engineering applications in buildings and bridges.

CO5: Arranged a guest lecture by an industry expert on practical methods for vibration analysis in structural and mechanical design.

CO6: Organized interactive workshops where students performed experimental modal analysis using models or simulation data to validate theoretical predictions.


Course Coordinator


Mentor



Head of the Department
Civil Engineering
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