



# 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 - BT23	Batch:	2024-2028
Course Name:	Matrices and Calculus	Course Code:	AHSD02
Semester:	I	Target Value:	60% (1.8)

#### Attainment of COs:

Course Outcome	Direct Attainment	Indirect Attainment	Overall Attainment	Observation
CO1 Determine the rank and solutions of linear equations with elementary operations.	2.60	2.70	2.6	Attained
CO2 Utilize the Eigen values, Eigen vectors for developing spectral matrices.	0.80	2.60	1.2	Not Attained
CO3 Make use of Cayley-Hamilton theorem for finding powers of the matrix	1.20	2.60	1.5	Not Attained
CO4 Interpret the maxima and minima of given functions.	1.20	2.60	1.5	Not Attained
CO5 Apply the Fourier series expansion of periodic functions for harmonic series.	1.00	2.60	1.3	Not Attained
CO6 Determine the volume of solid bounded regions by using the integral calculus.	0.40	2.60	0.8	Not Attained

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

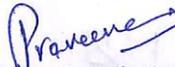
CO2: Conducted lectures explaining the mathematical concepts of Eigenvalues and Eigenvectors and their significance in structural dynamics.

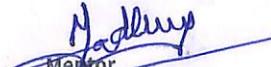
CO3: Organized problem-solving sessions where students applied the theorem to  $2 \times 2$  and  $3 \times 3$  matrices to simplify calculations.

CO4: Delivered tutorials on graphical interpretation of maxima and minima to strengthen conceptual understanding and analytical skills.

CO5: Organized problem-solving sessions where students computed Fourier coefficients for different standard functions and boundary conditions.

CO6: Conducted classroom lectures on methods of computing volumes using disk, washer, and shell techniques.

  
Course Coordinator

  
Mentor

  
Head of the Department  
Civil Engineering  
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