



# INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

Dundigal, Hyderabad - 500043, Telangana

## MECHANICAL ENGINEERING

### ATTAINMENT OF COURSE OUTCOME - ACTION TAKEN REPORT

Name of the faculty:	Dr. K VISWANATH ALLAMRAJU	Department:	Mechanical Engineering
Regulation:	IARE - R18	Batch:	2018-2022
Course Name:	MATERIALS AND MECHANICS OF SOLIDS	Course Code:	AMEB11
Semester:	IV	Target Value:	60% (1.8)

#### Attainment of COs:

Course Outcome	Direct attainment	Indirect attainment	Overall attainment	Observation
CO1 Relate the structure of materials with the principles of Miller indices, and apply in inter disciplinary engineering applications.	2.30	2.30	2.3	Attained
CO2 Identify the heat treatment process to determine mechanical and metallurgical properties with respect to phase changes of microstructures.	3.00	2.40	2.9	Attained
CO3 Compare the concepts of stress and strain at a point as well as the stress-strain relationships for linear, elastic, homogeneous and isotropic materials.	0.90	2.40	1.2	Not Attained
CO4 Develop the equations for principal stresses, maximum shearing stresses and angles acting on any arbitrary plane within a structural element.	1.70	2.30	1.8	Attained
CO5 Analyze the shear force and bending moment diagrams for different types of loads on cantilever, simply supported and over hanging beams.	1.30	2.40	1.5	Not Attained
CO6 Utilize the Clerk-Maxwell's reciprocal theorem and its applications in design of beams by considering slope and deflections.	0.60	2.40	1.0	Not Attained

#### Action Taken:

CO3: More assignments are to be given on the concept of stress-strain relationships for linear, elastic, homogeneous, and isotropic materials.

CO5: More problems are to be solved on shear force and bending moment diagrams for different types of loads and beams.

CO6: More problems are to be solved on the design of beams using Clerk-Maxwell's reciprocal theorem.

  
Course Coordinator

  
Mentor

  
Head of the Department

Head of the Department  
Mechanical Engineering  
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