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:	**2019-2023**
Course Name:	**MATERIALS AND MECHANICS OF SOLIDS**	Course Code:	**AMEB11**
Semester:	**IV**	Target Value:	**60% (1.8)**

Attainment of COs:

	Course Outcome	Direct attaiment	Indirect attaiment	Overall attaiment	Observation
CO1	Relate the structure of materials with the principles of Miller indices, and apply in inter disciplinary engineering applications.	0.90	2.30	1.2	Not Attained
CO2	Identify the heat treatment process to determine mechanical and metallurgical properties with respect to phase changes of microstructures.	1.60	2.20	1.7	Not 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.	3.00	2.20	2.8	Attained
CO4	Develop the equations for principal stresses, maximum shearing stresses and angles acting on any arbitrary plane within a structural element.	0.90	2.20	1.2	Not Attained
CO5	Analyze the shear force and bending moment diagrams for different types of loads on cantilever, simply supported and over hanging beams.	0.90	2.20	1.2	Not Attained
CO6	Utilize the Clerk-Maxwell's reciprocal theorem and its applications in design of beams by considering slope and deflections.	0.90	2.30	1.2	Not Attained

Action Taken:

CO1: More engineering applications may be given of the structure of materials with the principles of Miller indices.

CO2: More assignments may be given on the effect of the heat treatment process on the mechanical and metallurgical properties.

CO4: More tutorials to be conducted on finding principal stresses, and maximum shearing stresses in a structural element.

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**