INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

Dundigal, Hyderabad - 500 043

AERONAUTICAL ENGINEERING

ATTAINMENT OF COURSE OUTCOME – ACTION TAKEN REPORT

Name of the faculty:	**Praveen Kumar Balguri**	Department:	**Aeronautical Engineering**
Regulation:	**IARE - R16**	Batch:	**2017 - 2021**
Course Name:	**Aerospace Structures Laboratory**	Course Code:	**AAE104**
Semester:	**IV**	Target Value:	**80% (1.8)**

Attainment of COs:

Course Outcome		Direct attainment	Indirect attainment	Overall attainment	Observation
CO 1	Examine the deflection produce due to various end conditions of beams, verify maxwells reciprocal theorem, Stress-Strain curve for various materials for obtaining the minimum stress.	2.3	-	2.3	Attainment target reached
CO 2	Compare the buckling strength for short and long columns with various end conditions and verify it with Euler's formula for designing of beams used in aerospace structures.	2.3	-	2.3	Attainment target reached
CO 3	Assess the deflection of beams in out of plane (unsymmetrical bending), and obtain the location of shear center for a given beam section for designing of beams with minimum stresses and location of loading point to decouple torsion and deflection.	2.3	-	2.3	Attainment target reached
CO 4	Utilize the Wagner theorem to determine the buckling stresses under shear, and determine the young's modulus of a fabricated sandwich structure for designing of beams to avoid failures and to optimize the weight and strength of a sandwich structure.	2.3	-	2.3	Attainment target reached
CO 5	Utilize Dye penetration test, magnetic particle test, and ultrasonic technique to inspect the cracks on a material for characterizing a crack to avoid failures under static and dynamic loading conditions.	2.3	-	2.3	Attainment target reached
CO 6	Inspect the natural frequencies of beams under free and force vibration for designing of a structure to avoid failure due to resonance.	2.3	-	2.3	Attainment target reached

Course Coordinator **Mentor** **HOD**

Head of the Department
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