

INSTITUTE OF AERONAUTICAL ENGINEERING (Autonomous)

Dundigal, Hyderabad - 500043, Telangana

AEROSPACE ENGINEERING

ATTAINMENT OF COURSE OUTCOME - ACTION TAKEN REPORT

| Name of the faculty: | Dr. ATHOTA RATHAN | Department: | Aerospace Engineering | |
|----------------------|--------------------------------|---------------|-----------------------|--|
| Regulation: | IARE - MT23 | Batch: | 2023-2025 | |
| Course Name: | CFD for Aerospace Applications | Course Code: | BAED05 | |
| Semester: | I. | Target Value: | 60% (1.8) | |

Attainment of COs:

| Course Outcome | | Direct Attainment | Indirect Attainment | Overall Attainment | Observation |
|----------------|---|----------------------|------------------------|-----------------------|-------------|
| CO1 | Apply the flux approach, flux vector splitting, upwind reconstruction- evolution methods for solving the compressible flow problems using Euler's equations. | 3.00 | 2.30 | 2.9 | Attained |
| CO2 | Make use of the explicit, implicit, time split methods and approximate factorization schemes for obtaining the stabilized numerical solution of subsonic and supersonic nozzle flows. | 3.00 | 2.30 | 2.9 | Attained |
| CO3 | Develop the boundary layer transformation equations for steady external flows on airfoil, wings and aircraft using finite difference method. | 3.00 | 2.00 | 2.8 | Attained |
| CO4 | Analyze the structured, unstructured grids and dummy cells using physical boundary conditions for attaining the accurate results of fluid flow problems. | 2.20 | 2.50 | 2.3 | Attained |
| CO5 | Identify the characteristic lines and compatibility equations for designing the supersonic nozzle having shock free and isentropic flow. | 2.20 | 2.50 | 2.3 | Attained |
| CO6 | Utilize the effects of compressibility and viscosity on thin airfoil for establishing the numerical solution in aerodynamic problems. | 2.20 | 2.40 | 2.2 | Attained |

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

Mentor

Head of the Department

Head of the Department
Aeronautical Engineering
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