



# INSTITUTE OF AERONAUTICAL ENGINEERING (Autonomous)

Dundigal, Hyderabad - 500043, Telangana

## MECHANICAL ENGINEERING

### ATTAINMENT OF COURSE OUTCOME - ACTION TAKEN REPORT

Name of the faculty:	Dr. N SANTHISREE	Department:	Mechanical Engineering
Regulation:	IARE - R18	Batch:	2018-2022
Course Name:	Computational Fluid Dynamics	Course Code:	AMEB35
Semester:	VI	Target Value:	60% (1.8)

#### Attainment of COs:

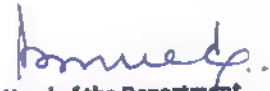
Course Outcome	Direct attainment	Indirect attainment	Overall attainment	Observation
CO1 Summarize the concepts of computational fluid dynamics and its applications in various industries as a tool for fluid and heat flow analysis	1.00	2.10	1.2	Not Attained
CO2 Select the appropriate fundamental physical principles and a suitable flow model to derive the governing equations for CFD analysis.	0.70	2.10	1	Not Attained
CO3 Apply shock fitting and shock capturing methods for CFD analysis of time marching and space marching problems.	0.00	2.10	0.4	Not Attained
CO4 Classify the partial differential equations into hyperbolic, parabolic and elliptical forms with the understanding of their mathematical behaviour.	1.30	2.10	1.5	Not Attained
CO5 Distinguish various grid generation and transformation techniques in the implementation of finite difference useful in solving complex fluid flow problems	0.90	2.10	1.1	Not Attained
CO6 Outline the concepts of finite volume method and its difference from finite difference method to solve basic fluid flow model in the real world applications.	1.30	2.10	1.5	Not Attained

#### Action Taken:

- CO1: More concepts are needed for computational fluid dynamics and its applications in various industries  
 CO2: Additional tutorial hours are required for physical principles and a suitable flow model to derive the governing equations for CFD analysis.  
 CO3: More exercises are required for CFD analysis of time  
 CO4: More practice is required for partial differential equations into hyperbolic, parabolic and elliptical forms  
 CO5: Additional tutorial hours are required for transformation techniques  
 CO6: More exercises are required finite volume methods

  
Course Coordinator

  
Mentor

  
Head of the Department  
Head of the Department  
Mechanical Engineering  
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