



**AARUPADAI VEEDU  
INSTITUTE OF TECHNOLOGY**  
OMR, PAIYANOOR, CHENNAI - 603104



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**DEPARTMENT OF MECHANICAL ENGINEERING  
THRUST AREA RESEARCH GROUP - CAD / CAM  
ENGINEERING DESIGN AND COLLEGIATE CLUB (EDCC)**

**REPORT ON TWO DAYS FACULTY DEVELOPMENT PROGRAM ON “COMPUTATIONAL  
FLUID DYNAMICS (CFD)” – 01.07.2019 & 02.07.2019**

Department of Mechanical Engineering in association with Engineering Design Collegiate Club (EDCC) - Thrust Area Research Group - CAD / CAM organised a two days Faculty Development Program on “**COMPUTATIONAL FLUID DYNAMICS**” from 01.07.2019 to 02.07.2019. Around 27 faculty members from Department of mechanical had attended the programme. Prof. L. Prabhu, Head of Mechanical Engineering briefed about the need of such FDP and welcomed the gathering. Resource Persons are **Mr. Mukesh, Sr. Trainer, CADDAM Technologies** **Mr. Pritivi Kumar, Trainer, CADDAM Technologies**. All the Faculty members were participated and benefitted from the FDP.

**CFD FLUENT – FDP CONTENT**

**Day -1**

Introduction to CFD – Fluent, Overview, basic steps, domain, Mouse Functionality, Tri/Tet v/s Quad/Hex, Compute solution, Examine Results.

Solver Basics - Solver Execution, Solver Inputs, Reading Mesh, Scaling Mesh & changing units, Defining Fluid Properties using Fluid Database, Material Assignment.

Boundary conditions - Locating Boundaries, Boundary Condition Types, Wall Boundaries, Symmetric & Asymmetric Boundaries, Cell Zone conditions, Periodic Boundaries, Interior Boundaries.

**Day -2**

Solver settings - Changing Solver, Changing Pressure-Velocity Couplings, Discretization Schemes, Solution Control Parameters, Monitoring stability, Accelerating convergence.

ANSYS FLUENT - Post Processing, Introduction, General Settings, Adding Lights, Creating Iso-surfaces, Creating Result Contours, Displaying Velocity Vectors, Creating Animation. Solutions using solver.

Mr. R.Praveen Assistant Professor (Gr-II), proposed the vote of thanks and briefed about the importance of CFD. The Faculty development program would be helpful for the students to undergo internships, Mini project / Project and could publish journals in reputed scopus / SCI journals.

EVENT PHOTOS:

