

Event title	Two Day Hands on Training on Computational Fluid Dynamics
Event Category	Workshop
Date and Duration	18.9.2025 and 19.9.2025
Department	Mathematics and Mechanical Engineering
Co-ordinators	Dr S Anitha AP/Maths and Dr Avinash Kumar R AP/Mech
Chief Guest/ Resource Person/ Keynote Speaker	Dr Manoj Kumar P, Prof/Mech, Dr Prem kumar T, AP/Mech, Dr Avinash Kumar R, AP/Mech, Dr. S. Anitha, AP/Maths, Mr. V. Vijai Kaarthi, AP/Mech
No. of Participants	21

The Department of Mathematics and the Department of Mechanical Engineering, PSG Institute of Technology and Applied Research, Coimbatore, jointly organized a Two-day Hands-on Training on Computational Fluid Dynamics (CFD) on campus.

The program was inaugurated at the E6 Mechanical Seminar Hall with a Prayer Song. Dr S Aramuthakannan, HoD (i/c), Mathematics, welcomed the gathering. Dr Manoj Kumar P, Professor and Head, Mechanical Engineering, delivered the Inaugural Address, stressing the importance of CFD in modern engineering and industry. Dr Avinash Kumar R, Assistant Professor, Mechanical Engineering, outlined the objectives of the workshop, while Dr S Anitha, Assistant Professor, Mathematics, proposed the Vote of Thanks.

The workshop was structured to provide both theoretical foundations and practical exposure.

- **Day 1** focused on fundamentals of fluid mechanics, governing equations, and CFD methodology. Sessions by **Dr Prem kumar T** and **Dr Avinash Kumar R** introduced **ANSYS Workbench and Fluent**, solver setup, and boundary conditions. The day concluded with **case studies on flow and heat transfer**, where participants gained hands-on experience in simulation and analysis.
- **Day 2** covered advanced topics. **Dr Manoj Kumar P** explained the **Finite Volume Method**, while **Dr S Anitha** highlighted the role of mathematics in fluid dynamics. **Dr X Ajay Vasanth** introduced **AI and Physics-Informed Neural Networks (PINNs)**, followed by a **hands-on session** applying AI to CFD problems. The workshop ended with **application-based problem-solving**, an **assessment**, and the **valedictory function**.



Group Photo

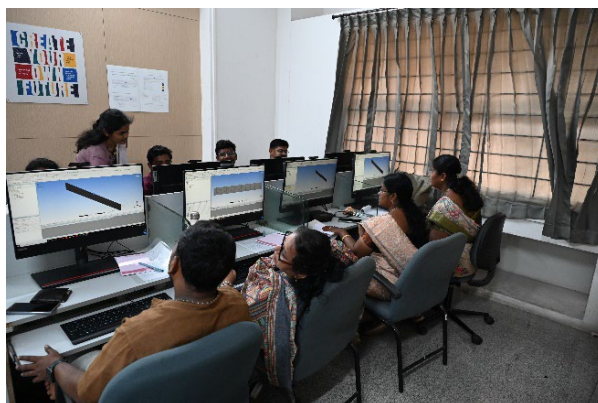
Event Photos



Inaugural Function



Session by Dr Prem kumar T



Hands-on Session



Session by Dr Avinash Kumar R