ISTE Membership No : IM 2194 **Faculty Chapter No :** MAH-204 **Student Chapter No :** MH-330

Activity Report on

"ISTE Approved Short Term Training Program on Computational Fluid Dynamics (CFD)"

✦ **Title of the Program** :- ISTE Approved Short Term Training Program on Computational Fluid Dynamics (CFD)

▶ **Type:** ☑ STTP ☐ FDP ☐ Workshop ☐ Webinar

✔ **Approving Body**: - Indian Society for Technical Education (ISTE)

🏛 **Organized by** :- Mechanical Engineering, MGI-COET, Shegaon

👩‍🏫 **Resource Person** :- Kiran

📍 **Venue** :- CAD Lab, MGI-COET, Shegaon, Maharashtra

🕒 **Duration** :- 6 Days

🗓 **Dates** :- 27th July 2026 to 01st August 2026

🏫 **Mode** :- Offline

🎓 **Total Number of Students Participated**:- 41

👩‍🏫 **Total Number of Faculty Participated**:-11

👥 **Programme Coordinator/s** :- 1) Prof. A. P. Bawne, 2) Prof. V. M. Gawali

Objective of the Training Program

The primary objective of the 6 Days STTP on CFD was to provide participants with in-depth knowledge of Computational Fluid Dynamics (CFD) and its direct application. The program aimed to bridge the gap between digital Simulation and physical product realization using modern CFD Tool.

1. Understand the fundamentals of Computational Fluid Dynamics (CFD).

2. Learn the governing equations of fluid flow.
3. Generate computational meshes for CFD analysis.
4. Apply appropriate boundary conditions and turbulence models.
5. Perform internal and external flow simulations using ANSYS Fluent.
6. Analyze heat transfer and fluid flow problems.
7. Visualize and interpret CFD simulation results.

Program Details

The programme commenced with a warm welcome by the Programme Coordinators, **Prof. A. P. Bawne** and **Prof. V. M. Gawali**, who welcomed the dignitaries, resource person, faculty members, and student participants. They briefed the audience about the objectives, significance, and five-day schedule of the **ISTE Approved Short Term Training Program (STTP) on Computational Fluid Dynamics (CFD)** and encouraged all participants to actively engage in the technical sessions.

Thereafter, **Hon'ble Dr. R. B. Ingle, Head of the Department, Mechanical Engineering**, addressed the gathering and highlighted the growing importance of Computational Fluid Dynamics in modern engineering. He emphasized the role of CFD in product design, thermal analysis, fluid flow simulation, optimization, and industrial problem-solving, motivating the participants to enhance their technical knowledge and practical skills in simulation-based engineering.

After the inaugural session, the technical sessions were formally initiated. The Resource Person, **Miss. Kiran**, conducted the sessions in a systematic and interactive manner. He introduced the participants to the fundamentals of Computational Fluid Dynamics, covering fluid flow principles, governing equations, numerical methods, mesh generation, boundary conditions, solver settings, convergence criteria, and post-processing techniques.

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Throughout the Six-day STTP, Miss. Kiran demonstrated the complete CFD workflow using industry-relevant software and practical case studies. Participants gained hands-on experience in geometry preparation, meshing, simulation setup, solution monitoring, result visualization, and interpretation of CFD outputs such as velocity contours, pressure distribution, temperature fields, streamlines, and flow trajectories. Real-world engineering applications from automotive, aerospace, thermal systems, and manufacturing industries were also discussed to bridge the gap between theory and practice.

Circular or Brochure

ISTE Membership No : IM 2194 **Faculty Chapter No :** MAH-204 **Student Chapter No :** MH-330

Day-wise / Session-wise Summary of Proceedings

Day / Date	Session Timing	Topic Covered	Key Takeaways
Day 1 27/07/2026	10:00–13:00 14:00–17:00	Introduction to CFD & Governing Equations	Understood mathematical modeling of fluid flow, continuity, momentum, and energy equations.
Day 2 28/07/2026	10:00–13:00 14:00–17:00	Discretization Techniques (FDM, FVM, FEM)	Gained clarity on Finite Volume Method formulations and boundary condition setups.
Day 3 29/07/2026	10:00–13:00 14:00–17:00	CAD Geometry Pre-processing & Grid Generation	Practiced mesh generation techniques, surface meshing, grid independence study, and inflation layers.
Day 4 30/07/2026	10:00–13:00 14:00–17:00	Turbulence Modeling & Internal/External Flow	Analyzed RANS models (k-ε, k-ω SST) and simulated pipe/airfoil flow fields.
Day 5 31/07/2026	10:00–13:00 14:00–17:00	Heat Transfer & Multiphase Flow Modeling	Modeled conjugate heat transfer, thermal boundary layers, and free surface flows.
Day 6 01/08/2026	10:00–13:00 14:00–16:00	Post-processing, Validation, Test & Valedictory.	Learned contour/vector plot visualization,residualconverg ence checking, and conducted final post-test.

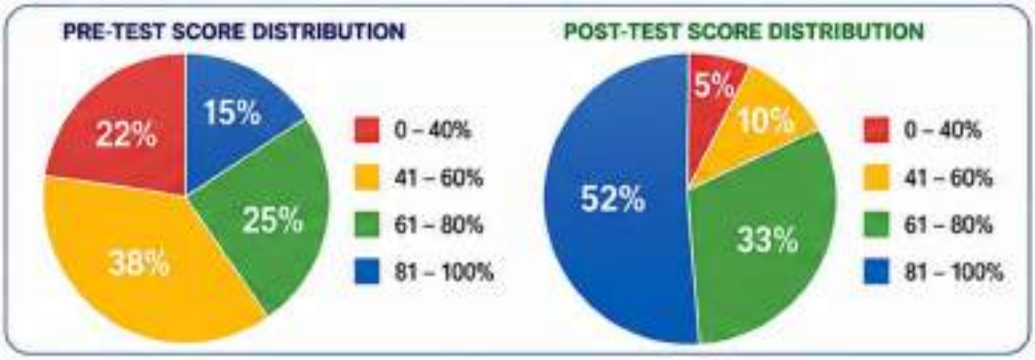
6 Days STTP Highlights

Geotag Photos for 6 Day STTP on Computational Fluid Dynamics

Pre-Test And Post-Test Analysis

A Pre-Test was conducted before the STTP on Computational Fluid Dynamics (CFD) to assess participants' existing knowledge. After the five-day programme, a Post-Test was conducted to evaluate learning improvement.

Parameter	Pre-Test	Post-Test
Total Participants	52	52
Average Score	46%	87%
Highest Score	78%	98%
Lowest Score	22%	68%
Participants Scoring Above 80%	5	42



Analysis

- Participants showed substantial improvement in CFD concepts.
- Hands-on ANSYS Fluent sessions enhanced simulation skills.
- Confidence in simulation setup and result interpretation improved.
- Post-test results confirm achievement of learning objectives and programme outcomes.

ISTE Membership No : IM 2194 **Faculty Chapter No :** MAH-204 **Student Chapter No :** MH-330

Result

Average Pre-Test Score **46%**	Average Post-Test Score: **87%**	Overall Improvement: **41**

Certificate Distributed to the Participant

Late Purushottam Hari (Ganesh) Patil Shikshan Sanstha's
Mauli Group of Institution's
College of Engineering and Technology, Shegaon
AICTE Approved, Affiliated Sant Gadge Baba Amravati University, Amravati, ISO 9001:2015 Certified

CERTIFICATE

This certificate is awarded to

MINAKSHI SUBHASH UJJAINKAR

has successfully completed the ISTE Approved Six-Day Short Term Training Program (STTP) on

"Computational Fluid Dynamics (CFD)"

organized by the Department of Mechanical Engineering, MGI-COET, Shegaon, held from 27th July 2026 to 01st August 2026 (6 Days).

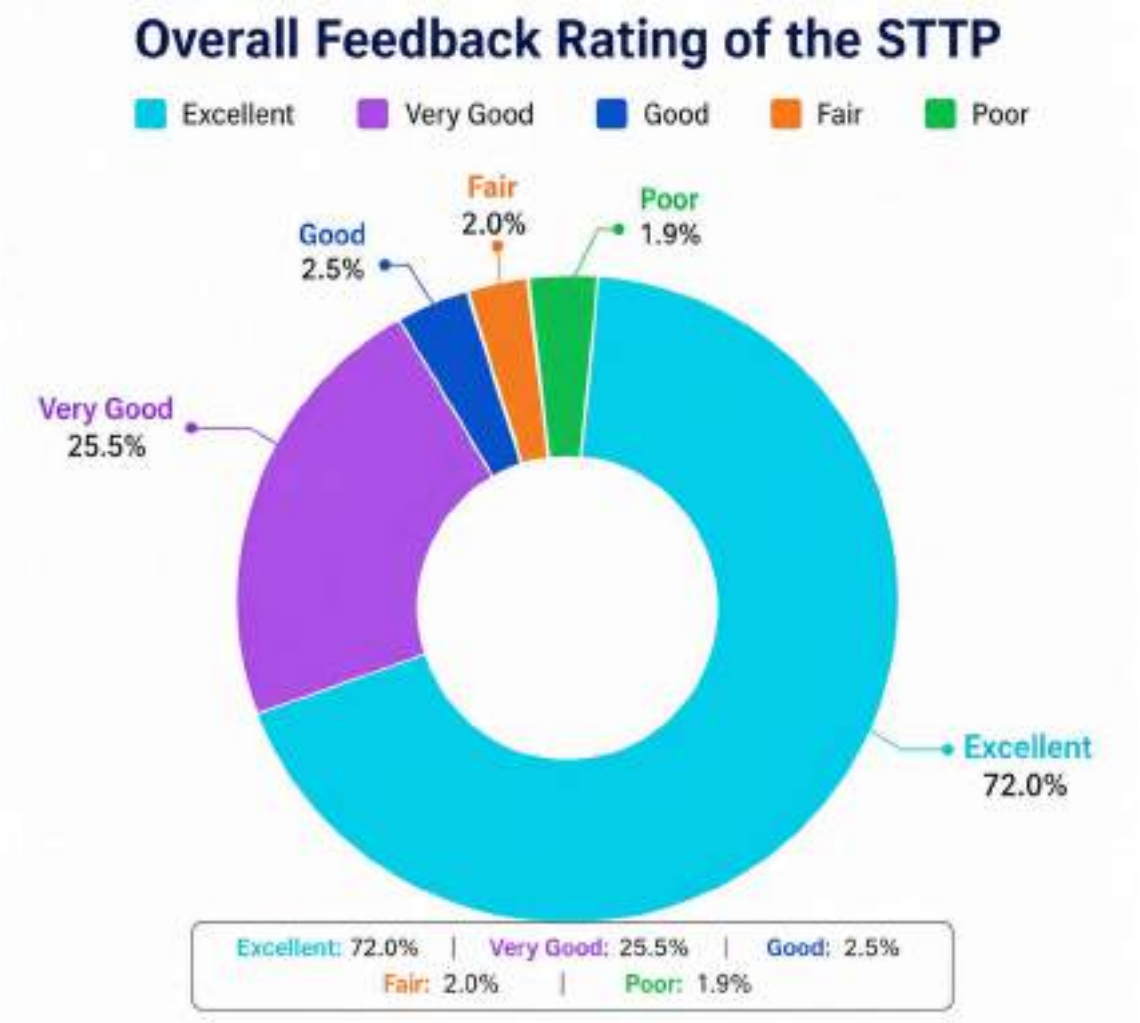
Miss. Kiran
Course Instructor

Dr. R. B. Ingle
HOD-M.E.

Distribution of Certificates to Participants

Feedback

Participants expressed high satisfaction with the quality of the sessions and the depth of content covered. They appreciated the practical sessions, which allowed them to apply the theoretical knowledge gained during the lectures. The feedback indicated that the training program was a valuable learning experience and would be beneficial for future research and technical Skill.



Program Outcomes

After successful completion of the **ISTE Approved Short Term Training Program (STTP) on Computational Fluid Dynamics (CFD),** the participants will be able to:

1. **Understand** the fundamental concepts and principles of Computational Fluid Dynamics (CFD) and its engineering applications.
2. **Apply** the governing equations of fluid flow and heat transfer to formulate and solve engineering problems.
3. **Select and implement** appropriate boundary conditions, turbulence models, and numerical solution methods for different fluid flow problems.
4. **Perform** steady-state and transient simulations of internal and external flow problems using **ANSYS Fluent.**
5. **Analyze** fluid flow, heat transfer, pressure distribution, and thermal performance in engineering systems using CFD tools.
6. **Evaluate** the accuracy and reliability of CFD results by assessing convergence, mesh quality, and validation techniques.
7. **Apply** CFD knowledge to solve real-world engineering problems in automotive, aerospace, manufacturing, thermal systems, and energy applications.

These programme outcomes are aligned with the objectives of the STTP and emphasize both theoretical understanding and practical proficiency in Computational Fluid Dynamics.

Prof. A. P. Bawne
ISTE Dept. Coordinator

Mauli Group of Institution's College of Engineering & Technology ★ Shegaon

Dr. R. B. Ingle
HOD / ISTE Secretary
Head of Department
Mechanical Engineering
Mauli Group of Institution's
College of Engineering & Technology
Shegaon Dist. Buldhana

Late Purushottam Hari (Ganesh) Patil Shikshan Sanstha's

Mauli Group of Institution's,

College of Engineering & Technology, Shegaon.

Department of Mechanical Engineering

Session: 2026-2027

ISTE Membership No : IM 2194 **Faculty Chapter No :** MAH-204 **Student Chapter No :** MH-330

Attendance Sheet

Topic: ISTE Approved STTP on CFD

Trainer: Kiran

Venue: CAD Lab

Time: 10:00 AM to 05:00 PM

Sr. No	Name of Participant	27/07/2026	28/07/2026	29/07/2026	30/07/2026	31/07/2026
1	Gayatri A. Kathod					
2	Kshitija V. Bhand					
3	Yogita D. Namatkar					
4	Bhakti S. Khot	B.S.Khot	B.S.Khot	B.S.Khot	B.S.Khot	B.S.Khot
5	Samiksha Kedar					
6	Gauri M. Raut	G.M.Raut	G.M.Raut	G.M.Raut	G.M.Raut	G.M.Raut
7	Pratiksha T. Jawarkar					
8	Ashwini G Metkar					
9	Eshwari N Dhumale					
10	Payal D. Wanjulkar					
11	Yukta N. Dabhade					
12	Minakshi Ujjainkar					
13	Neha Adhav					
14	Sakshi Kapse					
15	Vaishnavi Rothe					

Prof. A. P. Bawne
ISTE Dept. Coordinator

Mauli Group of Institution's College of Engineering & Technology ★ Shegaon

Dr. R. B. Ingle
HOD / ISTE Secretary

Mechanical Engineering
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College of Engineering & Technology
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Topic: ISTE Approved STTP on CFD **Venue:** CAD Lab

Trainer: Kiran **Time:** 10:00 AM to 05:00 PM

Sr. No	Name of Participant	27/07/2026	28/07/2026	29/07/2026	30/07/2026	31/07/2026
16	Bhakti M. Bhise					
17	Sayli S. Barode					
18	Akanksha Rathod					
19	Kshitikesh bhande					
20	Atharva N. Kolte					
21	om.V. Deshmukh					
22	Akshamesh P. Tikale					
23	Shlok Kediya					
24	Radhekrishna Joshi					
25	Abhishek G Mehar					
26	Tushar L Chitte					
27	Yash R. Bhagwatkar					
28	Virendra. V. Pate					
29	Aditya V. Wolle.					
30	Rajat M. Dambare					

Prof. A. P. Bawne
ISTE Dept. Coordinator

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Dr. R. B. Ingle
HOD / ISTE Secretary

Head of Department
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Topic: ISTE Approved STTP on CFD **Venue:** CAD Lab

Trainer: Kiran **Time:** 10:00 AM to 05:00 PM

Sr. No	Name of Participant	27/07/2026	28/07/2026	29/07/2026	30/07/2026	31/07/2026
31	Atharva Sontakke					
32	Nitish.A.Bayaskar	N.A.Bayaskar	N.A.Bayaskar	N.A.Bayaskar	N.A.Bayaskar	N.A.Bayaskar
33	Tushar.V. Fursule					
34	Akash K Verulkar					
35	Chaitanya H Bore					
36	Bhushan Sultane					
37	Jejay Raut					
38	Durgesh Dhoraki					
39	Kunal L. Dhanokar					
40	Pradik Pahurkar					
41	Aaditya Gore					
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Attendance Sheet

Topic: ISTE Approved STTP on CFD

Trainer: Kiran

Venue: CAD Lab

Time: 10:00 AM to 05:00 PM

Sr. No	Name of Participant	01/08/2027
1	Atharva N. Kolte	
2	Om.V. Deshmukh	
3	Shlok Kediya	
4	Prathamesh Tikar	
5	Abhishek G. Metkar	
6	Radhakrishna Joshi	
7	Tushar Chitte	
8	Yash Bhagwathar	
9	Vivekanda Pote	
10	Aaditya Kolte	
11	Rajat Dambare	
12	Atharva Sontakke	
13	Nitish A. Bayaskar	
14	Tushar V. Fursule	
15	Kunal L. Bharatkar	

Sr. No	Name of Participant	01/08/2027
16	Sayli S. Bonde	
17	Bhakti M. Bhise	
18	Vaishnavi Rothe	
19	Sakshi kalse	
20	Neha Adnav.	
21	Minakshi Vijainkar	
22	Payal D Lanjulkar	
23	Yukta Dabhade	
24	Eshwari Dhumale	
25	Ashwini Metkar	
26	Pratiksha Jaiswal	
27	Gauri Raut	
28	Samiksha Kedar	
29	Bhakti S. Khot	
30	Aaditya S. Gore	

Attendance Sheet

Prof. A. P. Bawne
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Trainer: Kiran

Venue: CAD Lab

Time: 10:00 AM to 05:00 PM

Sr. No	Name of Participant	01/08/2027
31	Yogita Mamatkar	
32	Durgesh Ghorude	
33	Bhushan Sultane	
34	Tejas Raut	
35	Chaitanya Bole	
36	Akash Vanvikar	
37	Pratik Pathrikar	
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Department of Mechanical Engineering
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Venue: CAD Lab

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Sr. No	Name of Participant	27/07/2026	28/07/2026	29/07/2026	30/07/2026	31/07/2026
1	Prof. V. M. Gawali					
2	Prof. Y. P. Tidke					
3	Prof. A. V. Sawkate					
4	Prof S. J Thakur					
5	Prof. T. Z. Ahmad					
6	Prof. S S Bhadange					
7	Dr. R. M. Kshirsagar					
8	Prof. D. B. Vaitkar					
9	Prof. A. P. Bawne					
10	Dr. R. B. Ingle					
11	Prof. Pawan Firke					
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13						
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Trainer: Kiran

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Sr. No	Name of Participant	01/08/2027
1	Prof. V. M. Gawali	
2	Prof. Y. P. Tidke	
3	Prof. A. V. Savekar	
4	Prof S. S Thaker	
5	Prof. T. Z. Ahmad	
6	Prof. S. S Bhadang	
7	Dr. R. M. Kshirsagar	
8	Prof. D B. Vaithkar	
9	Prof. A P. Bawne	
10	Dr. R. B. Ingle	
11	Prof. Raman Ford	
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Sr. No	Name of Participant	01/08/2027
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Shegaon Dist. Buldhana

Indian Society for Technical Education

Shaheed Jeet Singh Marg, Near Katwaria Sarai, New Delhi – 110016

Name and Address of Host Institution

Name: M. G. OF INSTITUTION'S COLLEGE OF ENGG. & TECH

Email: rahul4ingle@gmail.com

Phone: 9730752607

Website: -

Address: KHAMGAON ROADSHEGAON-

City: DIST. BULDHANA

State: MAHARASHTRA

Pincode: 444203

Incharge Details

First Name: Dr. S. R

Last Name: Paraskar

Email: principal@maulicoet.org

Phone: 9422920644

Designation: Professor

Program Details (SHORT-TERM TRAINING PROGRAMME ON COMPUTATIONAL FLUID DYNAMICS (CFD))

Program intended for: Student and Teachers

Specialization Area: Mechanical

Course Type: Special course on Emerging areas

Proposal Category: Industry-based programmes with substantial involvement of industry and its experts

Program Duration: One week

Proposed Program Start Date: 2026-07-27

Proposed Program End Date: 2026-08-01

Having enough expertise within your institute and neighboring places: Yes

Course Coordinator Details

Field	Coordinator 1	Coordinator 2
Name	Amol P Bawne	Vaibhav M Gawali
Email	amolbawane12991@gmail.com	vaibhavgawali13@gmail.com
Phone	9657443244	8999309186
Telephone	09657443244	08999309186
Address	KHAMGAON ROADS, SHEGAON	KHAMGAON ROADSHEGAON-
Designation	Assistant Professor	Assistant Professor
Highest Qualification	M E	M E
Area of Specialization	CAD CAM	Mechanical
Teaching Experience	11	7
Industry Experience	-	-
Papers Published	5	2
Short-Term Course Attended	5	3
Short-Term Course Conducted	3	3

Course Details

Significance and Objectives: Understand the fundamentals of Computational Fluid Dynamics, Apply appropriate boundary conditions and turbulence models

Course Content/Coverage

Topic	Duration	Subject Expert
Introduction to CFD	5	Kiran
Mesh Generation	7	Kiran
Boundary Conditions	8	Kiran
Flow Analysis	5	Kiran
Result Interpretatio	5	Kiran
CFD Validation	5	Kiran

Course Schedule

Total Days	Lectures	Practicals	Visits	Others	Total Hours
6	10	25	2	1	38

Details of Equipment or Laboratory Facilities: Computer

Collaboration with Regulating Authority / Department

Expert Name	Organisation	Nature of Collaboration	Area of Expertise
Kiran	Gryphon	Training	Design

Details of Course Faculty

Name	Designation	Institute	Highest Qualification	Specialization
Kiran	Design Engineer	Gryphon	M E	Design

Audio Visuals and Mode of Course

Audio Visuals: Smart Classroom, LCD Projector

Mode of Course: Offline

Institute Membership and Chapter Details

IM Certificate Number: 2194 **Chapter Certificate Number:** MAH 204

Does your institution have an ISTE Faculty Chapter: Yes

Certified By Coordinator

Name: Dr Rahul Ingle **Place:** SHEGAON

Date: 18 Jul 2026

Certified By Principal

Name: Dr S R Paraskar **Place:** SHEGAON

Date: 18 Jul 2026