Aeronautical Society of India, CFD Division

26th AeSI CFD SYMPOSIUM

11th -13th August 2025

Day 1 (11th Aug 2025)

08:00 am - 09:00 am	**Registration**
09:00 am - 10:00 am	**Inauguration Ceremony** Venue: Main Auditorium
	Welcoming Guests
	Invocation
	Lighting of Lamp
	Welcome Address: Shri Satya Prakash, Chairman, CFD Division, AeSI
	Address by Chief Guest: Padma Shri Dr. Prahlada Ramarao (Former DS & CC R&D, DRDO, VC - DIAT Pune)
	Address by Guest of Honour: Shri Jitendra J Jadhav, DS & DG - ADA
	Address by Guest of Honour: Shri Ajay Kumar Shrivastava, Director (Engg, R&D), HAL
	Release of Book of Abstracts
	Vote of thanks: Smt. Valliammai Somasundaram, Gen. Sec, CFD Division, AeSI
10:00 am - 10:45 am	Keynote Lecture: **"Akash Missile System - Made in India, Made for World"** Padma Shri Dr. Prahlada Ramarao (Former DS & CC R&D, DRDO, VC - DIAT Pune) *Chairperson: Prof S M Deshpande, IISc*
10:45 am - 11:15 am	High Tea
11.15am - 12:00 pm	Plenary Talk: **"Challenges in 5th Generation Aircraft programmes"** Shri Jitendra J Jadhav, DS & DG - ADA *Chairperson: Padma Shri Dr. Kota Harinarayana, Former Program Director - ADA*

Day 1: 11th Aug 2025 **12:15 pm - 01:30 pm**	**Session 1B**	**Session 1C**	**Session 1D**
	Venue: Prerana	Venue: Pragathi	Venue: Abhyudaya
Session 1	**Numerical Algorithm** *Chairperson: Dr. Vidyadhar Mudkavi, NAL*	**Internal Flows** *Chairperson: Mr. G Sivaramakrishna, GTRE*	**Large Eddy Simulations** *Chairperson: Prof. Santanu Ghosh, IITM*
12:15 pm - 12:30 pm	Paper 01: CP - 10 **A Multiple Relaxation Time Based Lattice Boltzmann Method Coupled with the Flexible Forcing Immersed Boundary Scheme to Study the Power-Law Fluid Flow past a Two-dimensional Circular Cylinder** *- Shuvranil Sanyal et al., IIT Kharagpur*	Paper 02: CP - 54 **Design and CFD Analysis of a Multi-Slit Expansion Nozzle (MSEN) under Varying Pressure Ratios** *- Y Mani Sundara Krishna Vamsi et al., SASTRA University, Thanjavur*	Paper 03: CP - 45 **Large eddy simulation of trapped vortex combustor: Effect of hydrogen blending** *- Aritra Roy Choudhury et al., IISc Bangalore*
12:30 pm - 12:45 pm	Paper 04: CP - 18 **A moving multi-block entropic lattice Boltzmann method for three-dimensional moving and deforming bodies** *- Sanjeev Kumar et al., IIT Delhi*	Paper 05: CP - 07 **Inlet Pressure Distortion Related Studies on an Experimental Single Stage Fan Using CFD** *- Ritam Bhunia et al., GTRE*	Paper 06: CP - 94 **Large-eddy simulation study of the flow behind an isolated propeller and a propeller array** *- Kenjale Pratik Vijay et al., IIT Hyderabad*

12:45 pm - 01:00 pm	Paper 07: CP - 24 **Validation of LM Model in SU2 for Transitional Flow Prediction** *- Dattatraya S Kulkarni et al., NAL*	Paper 08: CP - 30 **Numerical Investigation of Unstart Dynamics in a Curved Compression Ramp Air Intake** *- Jayahar Sivasubramanian, MSRUAS*	Paper 09: CP - 15 **Shock-wave/Turbulent Boundary Layer Interaction using Explicit Filtering LES** *- Aruna Priyadharshini Muruganandam et al., IISc Bangalore*
01:00 pm - 01:15 pm	Paper 10: CP - 35 **Evaluation of asynchronous compressible flow solver on transitional flows** *- Aswin Kumar Arumugam et al., IISc Bangalore*	Paper 11: CP - 17 **Comprehensive CFD-Based Performance Assessment and Flow Field Analysis of a Multi-Stage Axial Flow Compressor** *- Yogesh TV, GTRE*	Paper 12: CP - 04 **Study of Compressible Impinging Round Jets using Large Eddy Simulations** *- Priyakshi Goswami et al., IIT Kharagpur*
01:15 pm - 01:30 pm	Paper 13: CP - 97 **WENO Scheme for Unstructured Grids** *- Manish Kumar Singh et al., NAL*	Paper 14: CP - 19 **Estimation of Performance of Single Stage Axial Compressor on Account of Manufacturing Tolerance** *- Gojin R S et al., GTRE*	Paper 15: CP - 132 **Non-linear unsteady aerodynamics behavior for Longitudinal stability at High angle of attack of a Modern fighter aircraft** *- Ramkumar Yadav et al., ADA*

Day 1: 11th Aug 2025 **02:30 pm - 03:15 pm**	**Session 2B**	**Session 2C**	**Session 2D**
	Venue: Prerana	Venue: Pragathi	Venue: Abhyudaya
Session 2	**Intake Aerodynamics** *Chairperson: Dr. A K Vinayagam, ADA*	**Multiphase Flows** *Chairperson: Dr. V Ashok, VSSC (Retd.)*	**Heat Transfer** *Chairperson: Dr. J S Mathur, NAL (retd.)*
02:30 pm - 02:45 pm	Paper 16: CP - 01 **Performance of Dynamic Pitot type intakes in off- design conditions** *- Pawan kumar et al., DRDL*	Paper 17: CP - 16 **Simulation of Hydrogen Mixing in Supersonic Airflow Using a Vortex Generator in a Constant-Area Duct** *- Jigarkumar Sura,Sardar Vallabhbhai Patel Institute of Technology et al., Vasad, Gujarat*	Paper 18: CP - 37 **Influence of Thermal and Gas–Surface Interaction Models on Non-Continuum Rayleigh–Bénard Convection Using DSMC** *- Sanjana G Rao et al., IIT Madras*
02:45 pm - 03:00 pm	Paper 19: CP - 125 **CFD estimation of Spillage Drag characteristics for a canted pitot intake of a generic fighter aircraft** *- Pathanjali R J et al., ADA*	Paper 20: CP - 20 **Eularian-Eularian two phase flow analysis of solid rocket motor for the Prediction of Delivered Vacuum Specific Impulse** *- Ajith M et al., ISRO*	Paper 21: CP - 43 **Numerical Investigation on the Effectiveness of Transpiration Cooling for Hypersonic Flight** *- Jayahar Sivasubramanian et al., MSRUAS*
03:00 pm - 03:15 pm	Paper 22: CP - 133 **Unsteady flow dynamics simulations in Air intake of fighter aircraft** *- Ramkumar Yadav et al., ADA*	Paper 23: CP - 87 **Primary Breakup and Spray Characterization in Gas-Assisted Liquid Atomization Using VOF–DPM Transition: Role of Impingement Angle and Gas Pressure** *- Anubhav Sinha et al., IIT BHU*	Paper 24: CP - 104 **A Study of Thermo-Chemical Non-Equilibrium Effects on the Atmospheric Re-Entry of a Crew Module** *- Pranav Koppa et al., ISRO*

Day 1: 11th Aug 2025 **03:15 pm - 04:00 pm**	**Session 3B**	**Session 3C**	**Session 3D**
	Venue: Prerana	Venue: Pragathi	Venue: Abhyudaya
Session 3	**Internal Flows** *Chairperson: Dr. A K Vinayagam, ADA*	**CFD based Augmentation of WT data** *Chairperson: Dr. V Ashok, VSSC (Retd.)*	**Flow past Airfoils** *Chairperson: Dr. J S Mathur, NAL (retd.)*
03:15 pm - 03:30 pm	Paper 25: CP - 129 **Numerical Analysis of an inlet unstart and start characteristics of a scramjet engine** *- Amit Kumar Singh et al., ISRO*	Paper 26: CP - 135 **Impact of Canard Deflection and Gap on a Blunt Nosed Slender Body at Mach 2.0** *- Priyank Kumar et al., BIT Mesra*	Paper 27: CP - 34 **Numerical Investigation of Flow Separation for Eppler 387 Airfoil** *- Jayahar Sivasubramanian et al., MSRUAS*
03:30 pm - 03:45 pm	Paper 28: CP - 62 **Numerical Study of Unstart/Restart Hysteresis in a Scramjet Engine** *- Jayahar Sivasubramanian et al., MSRUAS*	Paper 29: CP - 122 **Effect of geometric modifications for intake wind tunnel testing** *- Abilashini R,ADA*	Paper 30: CP - 96 **Estimating Aerodynamic Characteristics of Wing with Control Surfaces using Airfoil Data** *- Ravi Kumar et al., IIT Madras*
03:45 pm - 04:00 pm	Paper 31: CP - 78 **Surrogate Model for Predicting the Performance of an Axial Turbine Due to Tip Clearance** *- Vaishnavi J et al., GTRE*	Paper 32: CP - 103 **Influence of Wind Tunnel Sting on the longitudinal Aerodynamic Characteristics of a fighter aircraft from CFD** *- Praveen Kumar B et al., ADA*	Paper 33: CP - 44 **Numerical Analysis of Modified Supersonic Airfoils to Investigate Aerodynamic Performance** *- Harini Ravi et al., MIT, Anna University Chennai*

Day 1: 11th Aug 2025 **04:15 pm - 05:00 pm**	**Session 4B**	**Session 4C**	**Session 4D**
	Venue: Prerana	Venue: Pragathi	Venue: Abhyudaya
Session 4	**Aircraft Aerodynamics** *Chairperson:Dr. P S Kulkarni, IISc (Retd.)*	**Aeroelasticity** *Chairperson: Dr. Indira Narayanswamy, ADA (Retd.)*	**Numerical Algorithms** *Chairperson: Dr. T N Venkatesh, NAL*
04:15 pm - 04:30 pm	Paper 34: CP - 29 **GPU Acceleration in External aerodynamic simulation of transonic flow over an aircraft** *- Shankar Singh Kaira et al., ANSYS*	Paper 35: CP - 09 **Effects of Angle of Attack on Aeroelastic Coupling in Flexible Flapping Wing Dynamics** *- Rahul Kumar et al., IIT Ropar*	Paper 36: CP - 127 **Residual Driven Adaptive Time Stepping for Unsteady Flow Computations** *- Mohammed Shaheen Suhail S et al., IISc Bangalore*
04:30 pm - 04:45 pm	Paper 37: CP - 93 **Study of Wing-Propeller Mutual Interference Effects using SU2 Solver** *- Arshad Shameem C et al., NAL*	Paper 38: CP - 74 **Transonic buffet and buffeting of a supercritical wing section** *- Adithya Udupa et al., IISc Bangalore* WITHDRAWN	Paper 39: CP - 95 **Hybrid RANS-LES Modeling of Flow over a NACA 0012 Airfoil: A Comparison of SA and SST based Formulations** *- Sintu Singha et al., NAL*
04:45 pm - 05:00 pm	Paper 40: CP - 100 **Computational Estimation of Longitudinal Dynamic Derivatives of Aircraft Configurations** *- Sharanappa V Sajjan et al., NAL*	Paper 41: CP - 108 **Horizontal and vertical tail buffeting of a trapezoidal wing planform in transonic flow** *- M I Vellaisamy Dinu et al., ADA*	Paper 42: CP - 85 **Multi-Level Hierarchical Kriging for Aerodynamic Shape Optimization at Low Reynolds Numbers** *- Syed Mohsin et al., MSRUAS*

Day 1: 11th Aug 2025 **05:00 pm - 06:00 pm**	**Session 5B** Venue: Prerana	**Session 5C** Venue: Pragathi	**Session 5D** Venue: Abhyudaya
Session 5	**Acoustics** *Chairperson:Dr. P S Kulkarni, IISc (Retd.)*	**Store Separation** *Chairperson: Dr. Indira Narayanswamy, ADA (Retd.)*	**High Performance Computing** *Chairperson: Dr. T N Venkatesh, NAL*
05:00 pm - 05:15 pm	Paper 43: CP - 11 **PE-RAMGeo Model for Underwater Noise Prediction: Validation and Bio-acoustic Application** *- Akula Chaturvedi et al., IIT Bombay*	Paper 44: CP - 73 **Development and Validation of Store Separation Suite Using Opensource Solver SU2** *- Shikhar Jaiswal et al., NAL*	Paper 45: CP - 98 **A high level framework for MPI based communication in CFD applications and it's implementation in PRAVAHA Software** *- Harichand M V et al., ISRO*
05:15 pm - 05:30 pm	Paper 46: CP - 25 **Effect of Geometry Induced Passive Control Strategies on Supersonic Cavity Flow Dynamics** *- Anagha K et al., IIT Hyderabad*	Paper 47: CP - 128 **Finalization of Hard Point Locations for Indian fighter aircraft** *- Karthikeya P et al., ADA*	Paper 48: CP - 77 **OpenACC vs OpenMP Offloading: Evaluating the COMPSQUARE Compressible Flow Solver on GPUs** *- Raghuram B et al., IIT Madras*
05:30 pm - 05:45 pm	Paper 49: CP - 114 **Acoustic wave attenuation in weakly compressible methods using anisotropic non-homogeneous bulk viscosity** *- Y Sudhakar et al., IIT Goa*	Paper 50: CP - 130 **Numerical simulation of Store separation with transient control surface deflections** *- Dheeraj Sappa et al., DRDL*	Paper 51: CP - 83 **A parallelized streaming code for spectral proper orthogonal decomposition** *- Pradeep Moise et al., IIT Kanpur*

05:45 pm - 06:00 pm	Paper 52: CP - 116 **Effect of Mach Number on Cavity Acoustics** *- Argha Saha et al., IISc Bangalore*	Paper 53: CP - 134 **Effect of retro jets plume interaction on missile fins and trajectory parameters during stage separation** *- S Srinivasa Raju et al., DRDL*	Paper 54: CP - 22 **Direct numerical simulation of turbulent channel flow using an efficient domain decomposition algorithm** *- Akhilesh M Prabhu et al., IISc Bangalore*
06:15 pm - 06:30 pm	**Felicitation of CFD Experts**		
06:30 pm - 08:00 pm	**Cultural Events**		
08:00 pm onwards	**Gala Dinner**		

Day 2 (12th Aug 2025)	
09:00 am - 09:15 am	Welcome
09:15 am - 10:00 am	Invited Talk: **"CFD based Multidisciplinary Analysis and Optimization Needs for Highly flexible aircraft"** Dr. L Venkatakrishnan, PD - High Altitude Platform, NAL *Chairperson: Mr. V V S Narayan, HAL* Venue: Main Auditorium
10:00 am - 11:00 am	**Industry Insights** *Chairperson: Mr. Biju Uthup, Former PD (GHATAK), ADA* *Venue: Main Auditorium*
10:00 am - 10:10 am	"DELL AI Factory" - Presented by DELL Technologies
10:10 am - 10:20 am	"Advanced CFD & Co Simulation Solutions for Aerospace & Defense applications"- Presented by Hexagon Design & Engineering
10:20 am - 10:30 am	"Get Productive with AI" - Presented by HP Enterprise
10:30 am - 10:40 am	"Mission Critical AI for Defence" - Presented by Netweb Technologies
10:40 am - 10:50 am	"Best in Class, Consistent & Trusted to deliver - CFD++ Solver & modeFRONTIER Optimization software" - Presented by Axiomatic iTech Pvt. Ltd.
10:50 am - 11:00 am	"AI for product design optimization" - Presented by Mathworks India Pvt. Ltd.
11:00 am - 11:15 am	Tea
11:15am - 12:00 pm	Invited Talk: **"Harnessing Exascale Computing for Advanced Aerospace Applications"** Prof. V Nagabhushana Rao, IITM *Chairperson: Dr. Kishore Kumar, GTRE (Retd.)* Venue: Main Auditorium

Day 2: 12th Aug 2025 **12:00 pm - 12:45 pm**	**Session 6A** Venue: Main Auditorium	**Session 6B** Venue: Prerana	**Session 6C** Venue: Pragathi
Session 6	**Space Applications** *Chairperson:* *Prof. Priyank Kumar, BIT MESRA*	**Unsteady Flows** *Chairperson:* *Dr. Vaibhav Shah, DRDL*	**Low Speed Flows** *Chairperson:* *Prof. M Sivapragasam, MSRUAS*
12:00 pm - 12:15 pm	Paper 55: CP - 113 **Sloshing mitigation analysis in a capsule-shaped LOX tank using innovative baffle design** *- Daivik Gautam et al., Chandigarh University*	Paper 56: CP - 50 **Oscillations of a Heated Flexible Cantilever Plate Driven by Natural Convection in an Enclosed Cavity** *- Ashwani Assam et al., IIT Patna*	Paper 57: CP - 47 **Numerical investigation of building gap influence in highway flow characteristics** *- S.Nadaraja Pillai et al., SASTRA University, Thanjavur*
12:15 pm - 12:30 pm	Paper 58: CP - 105 **Effect of gas generator exhaust on the base thermal environment of a launch vehicle with clustered engines** *- Aswathi Krishna et al., ISRO*	Paper 59: CP - 72 **On effectiveness of optimal perturbation for flow past a finite wing in hastening instabilities in wing-tip vortices** *- Mohd. Suhail Naim et al., IIT Kanpur*	Paper 60: CP - 76 **An Exploration of Low Fidelity Simulation during Conceptual Aircraft Aerodynamic Design** *- Kannan Ramachandran et al., HAL*
12:30 pm - 12:45 pm	Paper 61: CP - 107 **Aerodynamic characterization of a Test Launch Vehicle with large Fore body-to-Core diameter ratio using CFD** *- Amit Sachdeva et al., ISRO*	Paper 62: CP - 112 **Pitch damping of a typical re-entry capsule at subsonic conditions using forced oscillation technique** *- Ankur Nagpal et al., ISRO*	Paper 63: CP - 59 **Analysis of High-Speed Train's Slipstream Effects on Pedestrian Stability** *- S. Nadaraja Pillai et al., SASTRA University, Thanjavur*

Day 2: 12th Aug 2025 **12:45 pm - 01:30 pm**	**Session 7A**	**Session 7B**	**Session 7C**
	Venue: Main Auditorium	Venue: Prerana	Venue: Pragathi
Session 7	**Aeroelasticity** *Chairperson: Dr. P S Kulkarni, IISc (Retd.)*	**Bluff Body Analysis** *Chairperson: Prof. Pradeep Moise, IIT Kanpur*	**Meshless Methods** *Chairperson: Prof. Rajesh Ranjan, IIT Kanpur*
12:45 pm - 01:00 pm	Paper 64: CP - 52 **Learning Governing Equations for Vortex-Induced Vibrations from Simulation Data via Sparse Identification** *- Chandan Bose et al., University of Birmingham*	Paper 65: CP - 14 **Numerical Simulation of Particle-Laden Flow Over a Cylinder Using a Multiphase Solver** *- Shesh Narayan Dhurandhar et al., IIT Madras*	Paper 66: CP - 05 **An Eulerian Meshless Method for Embedded Geometries in Isotropic Point Clouds** *- Anand Bharadwaj S et al., IIT Delhi*
01:00 pm - 01:15 pm	Paper 67: CP - 23 **Vortex Dynamics and Associated Dynamical Transitions of the Numerical Swimmers in Quiescent Flow Condition** *- Kumar Sourav et al., SR University , Warangal*	Paper 68: CP - 28 **Comparing flow past a rotating cylinder for low and high rotation rates** *- Sanjeev Kumar et al., IITISM Dhanbad*	Paper 69: CP - 31 **Adaptive Meshing Using Supervised Machine Learning** *- Sai Tanusha Palle et al., VIT Vellore*
01:15 pm - 01:30 pm	Paper 70: CP - 82 **CFD estimation of maneuver loads on an aircraft** *- Adithya Udupa et al., IISc Bangalore*	Paper 71: CP - 12 **Instability of Flow Past a Triangular Bluff Body for Combustion Applications** *- Krishna Chaitan Marthi et al., IIT Kanpur*	Paper 72: CP - 03 **Weighted Least Squares Meshless Method for Entropically Damped Artificial Compressibility (EDAC) Method for Incompressible Flows using McCormack Technique** *- Konark Arora, PEC Chandigarh*
01:30 pm - 02:30 pm	Lunch		

02:30 pm - 03:15 pm	Invited Talk: **"Launch vehicle stage recovery - Past, Present & Near Future"** Dr. Pankaj Priyadarshi, Division Head - ADSD, VSSC *Chairperson: Prof. N Balakrishnan, IISc* Venue: Main Auditorium		
Day 2: 12th Aug 2025 **03:15 pm - 04:00 pm**	**SPICES Workshop Presentations** Venue: Main Auditorium	**Session 8B** Venue: Prerana	**Session 8C** Venue: Pragathi
Session 8	**SPICES Workshop** *Chairperson: Dr. Pankaj Priyadarshi, VSSC*	**Rotor Aerodynamics** *Chairperson: Mr. Sharanappa Sajjan, NAL*	**Internal Flows** *Chairperson: Mr. Vadivelan, ADE*
03:15 pm - 03:30 pm	**SPICES Workshop**	Paper 73: CP - 49 **High-Fidelity computation of flow in the vicinity of Helicopter Blades during hover** *- Rangan Pal et al., IIT Kanpur*	Paper 74: CP - 51 **CFD Analysis of Shock-Induced Flow Separation in Scramjet Inlet-Isolator Systems** *- Jayahar Sivasubramanian et al., MSRUAS*
03:30 pm - 03:45 pm		Paper 75: CP - 42 **Optimizing VAWT Solidity Ratio for Urban Wind Conditions** *- S. Nadaraja Pillai et al., SASTRA University, Thanjavur*	Paper 76: CP - 81 **Parametric Study of Ramjet Engine Intake Design for Optimal Performance Based on Pressure Recovery Ratio and Mass Capture Ratio Curve** *- Ritesh Pednekar et al., School of Aeronautical Engineering, Sanjay Ghodawat University, Kolhapur*

03:45 pm - 04:00 pm	**SPICES Workshop**	Paper 77: CP - 71 **Effect of Rotor Tip Winglet Geometry on Performance and Stability of a Transonic Axial Compressor Rotor** *- Subbaramu S et al., MSRUAS*	Paper 78: CP - 89 **Numerical Simulation and Multi-Algorithmic Design Optimization of a Supersonic Inlet for a 155 mm Ramjet-Assisted Artillery Shell** *- Tushar Chourushi et al., MIT Art Design and Technology University, Pune*
04:00 pm - 04:15 pm	Tea		

Day 2: 12th Aug 2025 **04:15 pm - 05:30 pm**	**SPICES Workshop Presentations**	**Session 9B**	**Session 9C**
	Venue: Main Auditorium	Venue: Prerana	Venue: Pragathi
Session 9	**SPICES Workshop** *Chairperson: Dr. Subash S, VSSC*	**CFD based Design Framework** *Chairperson: Prof. Anil Nemili, BITS Hyderabad*	**Combustion** *Chairperson: Prof. Sathesh Mariappan, IIT Kanpur*
04:15 pm - 04:30 pm	**SPICES Workshop**	Paper 79: CP - 115 **Uncertainty Quantification of Aerodynamic Loads on a Store Using Detached Eddy Simulation** *- Saranraj A et al., IISc Bangalore*	Paper 80: CP - 64 **Enhancing Fuel-Air Mixing in Aft-wall slanted cavity with upstream Expansion Ramp in Supersonic Combustion** *- Surojit Maji et al., IIST Trivandrum*
04:30 pm - 04:45 pm		Paper 81: CP - 38 **Hybrid Mesh Adaptation for Hypersonic Flows** *- Deepak Varma R S et al., IISc Bangalore*	Paper 82: CP - 06 **Numerical Investigation of Flow Structures and Mixing of a Liquid Jet in Supersonic Crossflow** *- Sarath P et al., ANSYS*

04:45 pm - 05:00 pm	**SPICES Workshop**	Paper 83: CP - 101 **OptiProp: A fast optimization tool for propeller optimization** *- Kaushik Kumar Nagarajan et al., NAL*	Paper 84: CP - 02 **Simulation of Strut-Based Injector Testing in Dual Fuel Scramjet Engine** *- Vevina Shreya Cutinho et al., MSRUAS Bangalore*
05:00 pm - 05:15 pm		Paper 85: CP - 75 **Fully open-source tools workflow for propeller aircraft aerodynamic design, validation and verification** *- Josy P Pullockara et al., NAL*	Paper 86: CP - 13 **Effect of thermal conductivity of walls of micro-combustor in premixed hydrogen-air catalytic combustion** *- Arjun Gond et al., IIT ISM Dhanbad*

Day 3 (13th Aug 2025)			
09:00 am - 09:10 am	Welcome		
09:10 am - 09:55 am	Invited Talk: **"A New Era of Throughput Jump in CFD Simulations"** Mr. Harsh Vardhan, Senior Director - R&D (Meshing Development Unit), ANSYS *Chairperson: Mr. Biju Uthup, Former PD (GHATAK), ADA* Venue: Main Auditorium		
Day 3: 13th Aug 2025 **10:00 am - 10:45 am**	**Session 10A** Venue: Main Auditorum	**Session 10B** Venue: Prerana	**Session 10C** Venue: Pragathi
Session 10	**AI / ML for predicting Turbulent Flows** *Chairperson:* *Prof. N Balakrishnan, IISc*	**AI/ ML for predicting flow around airfoils** *Chairperson:* *Prof. Rishita Das, IISc*	**AI /ML for CFD applications** *Chairperson:* *Prof. Arya Bhattacharya, Mahindra University*
10:00 am - 10:15 am	Paper 87: CP - 27 **GRU-Enhanced Diffusion Model for Long-Duration Turbulent Inflow** *- Harshith Reddy Kaila et al., IISc Bangalore*	Paper 88: CP - 110 **Airfoil Flow-field predictor using Physics Informed Neural Networks** - Shakthi Uma Devi et al., ADA	Paper 89: CP - 123 **Machine learning based prediction of flow fields in serpentine air intake ducts** *- Abilashini R et al., ADA*
10:15 am - 10:30 am	Paper 90: CP - 39 **Investigation of Neural Network-Based Calibration of the GEKO Turbulence Model for High-Lift Airfoil Flow Prediction** *- Kaushik Chavali et al., CADFEM India*	Paper 91: CP - 118 **Machine Learning-Based Surrogates for Aerodynamic Flow Prediction in a Digital Twin Framework** *- Vanshika Anand et al., ADA*	Paper 92: CP-36 **A machine learning based early flashback prediction in hydrogen reheat combustors** *- Tadikonda Shiva Sai et al., IISc Bangalore*

10:30 am - 10:45 am	Paper 93: CP - 67 **Investigating Shallow Layer Fine-Tuning in Transfer Learning for Generalization in LES of Turbulent Flows** *- Surya Datta Sudhakaret al., IISc Bangalore*	Paper 94: CP - 55 **Machine Learning-Based Prediction of Lift and Drag Coefficients for NACA 2412 Airfoil with CFD Validation** *- Mohammed Faidh et al., B S Absur Rahman Crescent Institute of Science and Technology*	Paper 95: CP - 68 Predicting **Turbomachinery Flows with Physics-Informed Neural Networks and Sparse Data Assimilation** *- Rajesh Ranjan et al., IIT Kanpur*
10:45 am - 11:00 am	Tea		

Day 3: 13th Aug 2025 **11:00 am - 04:00 pm**	**AI/ML Master Class Sessions** Venue: Main Auditorium
11:00 am - 12:30 pm	AI/ML Masterclass - 1: Prof. Arya Bhattacharya, Mahindra University
12:30 pm - 01:30 pm	AI/ML Masterclass - 2: Prof. Arya Bhattacharya, Mahindra University
01:30 pm - 02:30 pm	Lunch
02:30 pm - 04:00 pm	AI/ML Masterclass -3: Prof. Rishita Das, IISc Bangalore
04:00 pm - 04:15 pm	Tea
04:15 pm - 05:30 pm	**Valedictory Session** Venue:Main Auditorium
	Valedictory Talk: **"Staggered update procedure (SUP): A framework for Higher Order Finite Volume Method"** Prof. N Balakrishnan, IISc Bangalore *Chairperson: Mr. Satya Prakash, Chairman - CFD Division, AeSI*
	Students' Awards Distribution
	Vote of thanks