



# International Conference on Advances and Creations in Mechanical Engineering 2025

02 - 04 April 2025

## Online Conference Schedule

Date and Day	Activity	Time (Indian Std. Time)	Google Meet Links
02 April 2025 Wednesday	Inauguration	10.30 am to 11.15 am	
	Session F1	01.00 pm to 02.30 pm	
	Session F2	02.30 pm to 04.00 pm	
03 April 2025 Thursday	Session S1	11.30 am to 01.00 pm	
	Session S2	01.00 pm to 02.30 pm	
	Session S3	02.30 pm to 04.00 pm	
04 April 2025 Friday	Session T1	10.00 am to 11.30 am	
	Session T2	11.30 am to 01.00 pm	
	Session T3	01.00 pm to 02.30 pm	
	Valedictory Function	03.00 pm to 03.45 pm	

- ❖ All presentations will be conducted online.
- ❖ For any corrections in the paper title or author names, please email us by March 29, 2025.

## Important Guidelines for Authors

- ❖ All sessions will be online and initiated 10 minutes before scheduled time. All authors are requested to join at least 5 minutes before the start of the session.
- ❖ Authors are requested to attend the full session from the start. The internal session sequence may be subject to change in case of No Show Paper.
- ❖ **Non presented papers will not be considered for the further publication process.**
- ❖ The time allotted for each paper is 10 minutes (8 minutes for presentation and 2 minutes Q & A)
- ❖ Authors are free to select their PPT template. Please add Paper Title, Authors Names and Affiliations in the First slide. Use appropriate font color and size.
- ❖ You are kindly invited to attend the Conference Inauguration on 02 Apr 2025.
- ❖ The session can be attended by all authors. The answers during Q & A can be given by any author. Corresponding authors are requested to share the meeting links with co-authors.
- ❖ Please refer to the conference website for updates. [www.icacme.com](http://www.icacme.com)
- ❖ Please add the paper ID, Authors, Title and Session during communication so that we can assist you quickly. Email: [info.icacme@gmail.com](mailto:info.icacme@gmail.com)

## ICACME 2025: Paper Presentation Sessions

Online Session: F1 | Wednesday, 02 April 2025 | 01.00 pm to 02.30 pm (IST)

Paper ID	Paper Title	Authors
1022	Synthesis of Al6061-TiO <sub>2</sub> Nanocomposites and its Processing Parameters	M Sreenivasa, Batluri Tilak Chandra, H. M. Nanjundaswamy, Raghu S, Sujana N and Sunitha Y. N
1005	Investigation of the Mechanical Properties of Metal Chip Reinforced Composites	B. Yashwansingh R. Surnam
1003	Fabrication and Synthesis of Zn-2%Mg-HA <sub>x</sub> Using Ultrasonic Rheo Squeeze Casting Technique: Investigation on Mechanical and Tribological Behaviour for Biodegradable Implants	Sandhya L, Vinod B, Sai Tharun C, Muniteja R and Vignesh M.S
1004	Investigation of the Corrosion Behaviour of Different Metals under Stagnant Seawater Conditions	B. Yashwansingh R. Surnam
1009	Synthesis and Fabrication of biodegradable Mg-3Nd-0.5Zn-Cax hybrid composite: A novel Alternative to metallic implants	Bhuvaneshwar Reddy P, Asha A, Vinod B, Jayakumar ST, Ganesh M and Kishore A
1016	Comparative Corrosion Studies of Polyester-Powder Coatings and Uncoated Mild Steel Substrate	Anagha Shivankara, Shivnanda Bhavikattia and Abhishek Sonia
1035	Transition Depth Range and Work Hardening of Abrasion-resistant Liner Material Subjected to Ballistic Impact Test	Mamookho Elizabeth Makhatha, Kgotso Bhabha, Pawan Kumar
1028	Finite Element Analysis of Meltpool Distortion of Inconel 718 using SLM Method	Sanjeevi Sharma R., Venkatachalaiah K.N. and Pramod R.
1043	Improved the Mechanical and Thermal Properties of PVA/Starch Nanocomposite Incorporated with Nanocellulose	Krishna Narayan, Vinay Pratap Singh

Paper ID	Paper Title	Authors
2007	Computational Analysis of Heat Transfer Enhancement in a micro Channel Heat Exchanger with Pin Fins Using Nanofluids	Sorna Latha, Divya Haridas, Karthik Jayanarasimhan
2013	Investigation of Heat Transfer & Flow Analysis of Artificial Roughened Solar Air Heater Duct having Reversed Arc Shaped Roughness with Staggered Element	Surjeet Singh Rajpoot, Manish Singh Bharti and S. K. Nagpure
2016	Thermal Performance of a Closed Loop Pulsating Heat Pipe Using Acetone and Ethanol for Plain Tube and Wire Insert	Dhananjay Banik Joy, Sumon Kumar Pramanik Joy, Sanjay Kushal Biswas and Alope Kumar Mozumder
2006	Artificial neural network based determination of the performance and emissions of a DI Diesel engine using HCP microalgae biodiesel blend	Jagadevkumar Patil
2024	Numerical Analysis of Diffusion Absorption Refrigeration System Using Different Working Fluids	Sreenesh Valiyandi and Gireeshkumaran Thampy
2018	Systematic Review on the Design and Development of Solar Dryers for Agricultural Products.	Sachin Shivaji Phuge and Balasaheb Shahaji Gandhare
2028	A Detailed Review of Different Solar Collectors for Milk Pasteurization	Krunal Gohil, Chetankumar Patel and Vanraj Dodiya
1055	Solar Hybridization Strategies: Unlocking the Potential of CSP-PV Systems in India	Alen Jose Iakra, Vaibhav Chaubey, Vishal Yadav, Anil Kumar
2038	Enhancing Diesel Engine Performance and Emissions with Biodiesel and Exhaust Gas Recirculation: A Comprehensive Review	Saurabh Hemant Patil, Niraj Dole

Paper ID	Paper Title	Authors
2002	Biopolymer Applications in Two-Phase Flows for Drag Reduction – A Review	Prashant Baghele and Pramod Pachghare
2014	Optimization of Savonius Hydrokinetic Turbine Performance: The Role of Wall Y+ and Prism Layer Stretching	Karan Kumar, Lakhbir Singh Brar, Dhruv Narnolia, Debanshu Banerjee, Veena Kumari, Rishikesh Sharma, Akash Dayal and Yaswanth Varikuti
2005	Effect of Biopolymer Mixing on Water and Air-Water Flow through Horizontal Pipes	Prashant Baghele and Pramod Pachghare
2017	Analysis of Centrifugal Pump Using Non-Smooth Theory	Sanjay Ghatage, Pankaj Karande, Rushikesh Jangale and Parashuram Shelke
2033	A Comprehensive Analysis on Gas Ejector Design, Challenges, and Applications	Dhaval Rajyaguru, Hiral Joshi and Chetan Patel
3013	Numerical Investigation of Savonius Hydrokinetic Turbine: A Benchmark Study	Veena Kumari, Lakhbir Singh Brar and Om Prakash
3025	Aerodynamic Characteristics of Corrugated Nozzles: A Review of Numerical and Experimental Studies	Kriparaj K.G, Tide P. S. and Biju N.
2008	Jet impingement heat transfer using Al <sub>2</sub> O <sub>3</sub> and Cu nanoparticles in Air and Water	Ananya Mahapatra and Pandaba Patro

Paper ID	Paper Title	Authors
1001	Optimization of Laser Process Parameters and Performance Comparison Using Random Forest and Linear Regression Models	Amit Sharma, Tauseef Uddin Siddiqui, Manoj Kumar Singh, Arshad Noor Siddiquee, Tarun Bhardwaj, Aftab Ansari and Arbab Jamil
1013	Prediction and Optimization of Weld Bead Geometry in Gas Metal Arc Welded EN31 Plates.	Annvicsha, Dushyant Sharma and Pradeep Khanna
1006	Optimizing FFF Process Parameters to Enhance PLA Performance on Low-Cost 3D Printers	Gayatri Dhankhar and M.K Satyarthi
1008	Optimization of Process Parameters in drilling of AZ91D Magnesium Alloy using Desirability Function Approach	Umamaheswarrao P, Vijay Praveen D, Narendra Babu Y and Krugon S
1012	Optimization of Turning Parameters for Aluminum 7075 Using the Taguchi Method: A Statistical Approach	Ashis Satapathy, Debasish Panda, Man Mohan Patnaik and Gouri Shankar Mohapatro
1002	Multi-Objective Optimization of Wire-EDM of Process Parameter for Machining AlCoCrFeNi High Entropy Alloy	Mr Sahib, Tauseef Uddin Siddiqui, Arshad Noor Siddiqui and Zahid Akhtar Khan
1014	Prediction and Optimization of Weld Dilution in Gas Metal Arc Welded EN31 Plates.	Dushyant Sharma, Annvicsha and Pradeep Khanna
4005	Selection of Electric Car Using Multi Attribute Decision Making Methods	Pranav Bachhav, Karan Gawali, Praful Gonnade and Avinash Kamble
1039	Material Selection for Roll cage of ATV Car using Multi Attribute Decision Making Methods	Praful Gonnade , Pranav Bachhav, Karan Gawali and Avinash Kamble

Paper ID	Paper Title	Authors
3020	Study of Vibration Interplay between Unbalance and Two Cracks in a Rotor-Foil Bearing System	Veeramallu Naga Anirudh, Prabhat Kumar, Ngarinsing Ruivah, Gopal Kumar and Wungrampei Semmi Langkhamwo
3011	Innovative Crane-Like Modular System for Automated Panel Translation and Rotation	Suvranta Kumar Tripathy, Gouri Shankar Mohapatro and Sudhansu Kumar Patnaik
3010	Robust Mechanical Design Optimization for Lightweight Structural Systems	Shubham Bhaskar Thakare
3016	Development of an Automated Locator Pin Placement System Using Machine Learning	Priyanshu Sharan, Mridul Singhal, Joy Sachdeva, Aniket Meena, Karan and Anurag Gupta
3014	Automated Farming Solutions: Design, Motion, And Structural Analysis of An Agribot	Mythili Basireddy and Dayana R
3019	Design, optimization, computational analysis of foldable electric skateboard: The comparative study	Kaveri Katake, Siddhesh Balkawade, Altmash Shaikh and Akash Zanje
3018	Vibration-based multi-fault detection of bevel gearboxes with decision tree and machine learning algorithms	Sheo Kumar and Praveen Kumar Agarwal
3021	Unbalance and Crack Fault Detection in a Rotor-Foil Bearing System Using Machine Learning Approach	Shiksha Singh, Prabhat Kumar, Karong Reniwar Kom, Gopal Kumar and Apollos Marakpa
3001	Comprehensive Design, Simulation, Optimization and Performance Evaluation of a Battery Powered Go-Kart	Keyurita Deshpande, Prajwal Chavan, Wajid Nekware, Yash Randive, Swapnil Gosavi

Online Session: T1 | Friday, 04 April 2025 | 10.00 am to 11.30 am (IST)

Paper ID	Paper Title	Authors
1015	Fundamentals, Advancements and Current Status of Metal Wire Additive Manufacturing Technique: A Comprehensive Review	Mihir Patel, Trivedi Achyut, Apurva Indrodia and Ashil Patel
1030	An Overview of 3D Printing Materials and Applications in Dentistry	Ratnakar Lande, Achal Shahare and R. B. Tirpude
1026	Wire Arc Additive Manufacturing of AA 7075 Correlation of Arc Mode Microstructure & Mechanical Properties	V V Ravi Kumar
1024	Defect Reduction Using Integration of Quality Control Tools with Lean Manufacturing Techniques for Process Improvement at an Automobile Company	Karan Gawali, Pranav Bachhav, Praful Gonnade and Avinash Kamble
1033	Combination of CNC End Milling Parameters to Optimize Chip Thickness Using Taguchi Approach	Makireddi Durga Naidu, Reddy Sreenivasulu , Shaik Abdul Rehaman and Vemula Vital Paul
1036	Digital Twin Adoption in Manufacturing: A Review	Mahadev Laxman Naik and Milind Shrikant Kirkire
1084	Analysis of the Impact of APQP on Product Lifecycle Management (PLM)	Osho Shah and Chetankumar Patel
1010	Linear Graphs and Interaction Tables in Planning of Orthogonal Array: A Case Study	Araveeti C Sekhara Reddy
1085	Optimization of cutting parameters in surface roughness and metal removal rate in cutting stainless steel by coated tool	Yusuf Sahin and Ahmet Saygin Öğülmüş



Paper ID	Paper Title	Authors
1021	A Brief Review on Restoration Processes in Duplex Stainless Steel	Mamookho Elizabeth Makhatha and Pawan Kumar
1019	Investigating the Effects of Bio waste Papaya Fruit Powder on the properties of Polylactic Acid-Based Bio Composites	Yogesh Laxmanrao Kakuste, Prajitsen Gulabrao Damle and Dinesh Vanji Lohar
1031	Comparative Study on Vibration Damping Performance of Unidirectional Fiber Reinforced Epoxy Granite Beam	Deepak Ubale and Abhijeet Shah
1083	Structure-property Correlation of Continuous Cotton Fibre Reinforced Paper Composite Subjected to Drop Test	Mamookho Elizabeth Makhatha and Pawan Kumar
1032	Finite Element Analysis of the Effect of Hygrothermal Ageing on the Mechanical Properties of Glass Fiber Reinforced Polymer Composites	Jishnu S Nair and Pramod R
1020	Simulation-Based Analysis of Nature-Inspired Voronoi Structures in Additive Manufacturing	Vasu Kumar, Mayank Agarwal, Surabhi Lata, U. Gayatri and Tony Rhodes Kotchera
1045	Fabrication of Aluminium Alloy (AL6061) Reinforced with Silicon Carbide and Sugarcane Bagasse Ash	Amol S Dayma and Chetankumar Patel
1050	Locally Resonant Phononic Crystals For Noise Mitigation: A Machine Learning Approach	Shaili Kataria, Tanisha Agrawal, Srishti Gupta and Prachi Suman

Online Session: T3 | Friday, 04 April 2025 | 01.00 pm to 02.30 pm (IST)

Paper ID	Paper Title	Authors
3009	Performance Analysis of Multilevel Inverter Systems using PWM Techniques	Parul Gaur
1051	Influence of Printing Conditions on Image Drying Time	Amey Mandreker and Harichandra Chandekar
2041	Assessment of Empty Straight Conical Diffusers Using ANOVA	Mangesh Mahajan and Sanjay Nikhade
2020	Effect of water consumption pattern on the temperature distribution of water within water cooler tank	Ghanashyam Chendke, Suresh Sawant and Laxman Waghmode