



Vasavi College of Engineering (Autonomous), Hyderabad, Telangana, India
Department of Mechanical Engineering
In Collaboration with Poornima College of Engineering, Jaipur, India
2nd International Conference on
Advanced Materials and Computational Methods in Mechanical Engineering
(ICAMCMME-2025) Date: 14-15 February 2025



Day-1: 14-February, 2025, Friday
FN Session: 11.00 A.M to 12.40 P.M

Mode of Session
Online

Paper Presentation Details

SI.No	Paper ID	Paper Details	Author
1	402	COMPUTATIONAL ANALYSIS OF FLOW CHARACTERISTICS IN AXISYMMETRIC HORIZONTAL PIPES	Shivananda Moolya1, Omar Al. Kiyumi1, Tariq Al. Rashdi1, Salim Al Jadidi1, A.Ranga Subbaiah1
2	405	Comparative Analysis of Performance and Emission Characteristics of a CI Engine Fuelled with Biodiesel and Pyrolytic Oil Derived from Cotton Seed	Manikandan A Thamizhvel R Kalaiselvan K Jassir Iqbal S
3	410	Design of thermo electric generatorfor harnessing waste heat in internal combustion engines	Bheri Giridhar Kartikeya Mergu Karthik Keesari Aksa Suda Venkateswarulu
4	415	Optimization of Advanced Materials for Enhancing Solar Collector Efficiency in Water Heating Systems	Markndeyulu Vuggirala N. Alagappan CH V K N S N Moorthy N.Karunakaran N.V. Narasimha Rao
5	416	Performance evaluation of cogeneration plant at various turbine inlet temperatures	V. Sumanraju T. Ramamohan Rao Narsimhulu Sanke
6	407	Thermal analysis of CPU heatsink with plate fins and slotted fins	Surisetty Venkataiah Salla Durga Prasad



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7	411	Effect of pipe material on the performance of Earth Pipe Air Heat Exchangers	Suda Venkateswarulu G Narendar Pothuri Venkateswara Rao P Manikanta
8	413	Epoxy coatings at cryogenic temperatures – a review	Sankalp A G Shyam Sundar B Gayatri Vineela Marrivada
9	414	Numerical studies on symmetrically and asymmetrically heated vertical channels with isothermal walls	C Gururaja Rao
10	207	Leveraging Image Processing and Neural Networks for Early Detection of Vitamin Deficiencies	Dr T Manasaveena POLUKONDA ARTHI PRIYA Muttu divya sree Mynampati Keerthi
11	313	Fabrication of Smart Firefighting and Surveillance Robot	PVS Subhashini Bharadwaj Aditya Singh
12	322	Advancements, Fabrication Techniques, and Performance Analysis of Aluminium Metal Matrix Composites	B. Sandeep Bharadwaj Aditya Singh Dr. K. Kishore J. Kantha Rao
13	325	Condition monitoring of plateau honing parameters using six sigma	K. Sai Krishna U. Yaswanth Kumar V. Ranga Naveendra K. Prasada Rao



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SI.No	Paper ID	Paper Details	Author
1	302	Acoustic-Structure Coupling Analysis Performed to an Optimized SISO Muffler	Santosh Kumar Kallepalli, Dr. K Kishore Dr. P Usha Sri
2	303	ADAPTIVE AI TECHNIQUES FOR INTRUSION DETECTION IN CYBER-PHYSICAL ROBOTIC ENVIRONMENTS	Dr. A. Kishore Kumar Divya Dr. A. Murugarajan
3	304	Empirical and ANN Optimization Study on Lemongrass Oil Blends in CI Engines	Vinodraj S Sethuraman N Prabhakaran R Thamivel R Shabeer A, Jagathesh
4	306	A Review of AI-Driven Optimization in Sustainable CNC Machining for Industry 4.0	C V Patil Dr P A Dalke Dr S P Trikal Dr. P V Walke
5	307	PERFORMANCE OPTIMIZATION OF FRICTION STIR WELDED AZ91D MAGNESIUM ALLOY USING HYBRID ENTROPY-VIKOR-TAGUCHI APPROACH	K. Rajesh Kumar Vaddi Venkata Satyanarayana P. Sampath Kumar M. Mallesh J. Pradeep Kumar Dharavath Baloji Jagadesh Kumar Jatavallabhula



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6	308	Evaluation of Toughness Properties and Intermetallic Formation in Friction Stir Welded Aluminum Metal Matrix Composites plates	Sadashiva M Srinivasa M R
7	311	Comparative analysis of performance prediction in friction stir welding using machine learning models	Gadde Raghu Babu Kakarla. Deepti
8	318	A Review on Topology Optimization of Metal Additive Manufacturing Automotive Components - A Case Study	M. Venkata Ramana M. Krishna Komal Sai Ganji Kakularam Praneel Reddy
9	320	Polygon-Based Path Optimization for AMR Traffic Management in Warehouse Applications	Dr. A. Murugarajan Darsana Barathi Peniel Winfred Raj Dr. A. Kishore Kumar
10	321	Optimization of Process Parameter in Evaluation of Mechanical Properties of Coir Natural Fiber Reinforced with Nano Silica	Ishrat Meera Mirzana S. Irfan Sadaq Hanumantu Krishna Murthy Dora M.A. Tayyab Ul Badr G. Sailaja
11	205	Quadcopter Frame Development through Topology Optimization	Elluru Veera Pratap Srinivas Pendyala Kameswara Sridhar Vepa N. V. S. S. Sagar
12	232	Hybrid-Controlled Six Wheeled Rover for Rugged Terrains With Sustainable Energy Management	J. Anjaneyulu B. Naga Manohar D. Shyam Jagadeesh M. Rahul Chakravarthy M. Ravi Teja



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SI.No	Paper ID	Paper Details	Author
1	108	Influence of specimen diameter for AHSS material using split hopkinson pressure bar tests	G Keerthi Dr T Ramamohan Rao Dr. VBS. Rajendra prasad
2	210	SCADA and DCS-Based Automation for Pressure, Flow, and Temperature Control	Buyakar Sandeep Chilumula Sai Siddartha Akula Sriram Manikanta Kesineni Lokesh Choudary Ravi Kumar Panthangi
3	215	On the study of High velocity impact behaviour of metals using SHPB	V B S Rajendra Prasad Siri.V. Kancharla Aravind.G
4	223	Modelling and Analysis of a Composite Car Body	K. Isaac Spurgeon B. Sandeep B. N. Manohar
5	224	Design, Analysis and Applications Of the stewart PLATFORM:a comprehensive study	Suda Venkateswarulu Vedika Takalkar Abhilash Wood
6	227	Design and Validation of an Arduino-Based Control System for a Driver Seat Vibration Simulator	M.Pandarinath T.Ramamohan Rao SriramVenkatesh Sree Lakshmi Gundebommu



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7	228	Investigations on Inclined Piezoelectric actuated patches on rectangular plate for DE-ICING	K. Gurubrahmam Dr. T. Ramamohan Rao Dr. M. Chandra Sekhar Reddy
8	231	Performance Evaluation & Analysis of a Brushless DC Motor (BLDC)	Kunal Goyal
9	236	Low velocity impact analysis and damage characterization of sandwich composite	T.V.S Krishna Kaushik N. Kiran Kumar
10	241	Design and Kinematic analysis of quadrupled robots	P.V.S Subhashini S.SreeKrishna Y. Varun T. Rohan
11	301	A Review on Friction Stir Welding: Alloys and Composites	G. Subhash ^a , M.V.R.D. Prasad ^a , M. Venkata Ramana
12	310	Optimization of Thrust and Torque Forces of EN8 in Drilling with HSS	P.V. Gopalkrishna K. Kishore Ch. Arun Kumar
13	408	Thermo-Structural Analysis of Cryogenic Fuel Tank with varying Common Bulk Head Configurations	Venkata Narayana Yenugula Azarael. B



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Day-2: 15-February, 2025, Saturday
FN Session: 11.00 A.M to 12.40 P.M

Mode of Session
Online

Paper Presentation Details

Sl.No	Paper ID	Paper Details	Author
1	101	Fabrication and microstructure examination of Al6063 -silicon carbide metal matrix composites	Harichandra K Chavhan Dr. Pradeep M. Solanki
2	102	Heat Input and Its Role in Shaping the Structural and Corrosion Performance of Nickel-Based MIG Welds on AISI 316 Stainless Steel	Samrat Kavishwar Vinod Bhaiswar
3	103	Enhancing Thermal Cycling Resistance in Multi-Layered Thermal Barrier Coatings: A Focus on Functionally Graded Designs	Renuka Y Anderson A
4	105	An assessment of mullins effect in some rubber compounds over different cycles for their energy absorption ability through artificial intelligence	J.Anjaneyulu G. Venkata Rao
5	107	A Review on Self-Healing Polymer Composites	Rajesh M Dhanush Kumar G Krishna Moorthy L Santhosh Palanisamy
6	220	A Deep Learning Approach for Counterfeit Currency Detection	Dr T Manasaveena S Yamini Sk.Zilani P.Ajay Babu
7	110	A comprehensive review on flame retardant strategies and carbon fiber reinforcement in natural fiber polymer composites	M.RAJESH A.DHIVAKAR M.KARTHIKEYAM N.MITHUN MTAMILARASAN ⁵



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8	111	Wear performance of polymer matrix composites reinforced with aramid fibers and modified with ceramic fillers	Ravikiran Kamath B Sudheer M Vidyasagar Shetty P. Akshara Chidambar Kadoli G. Sanjay Pai Akash Vishwanath Rajath
9	114	Evaluating Performance, Durability, and Environmental Benefits of Low-Carbon Concrete: A Comprehensive Review	Shoeb Mohammed Kandoori Roja Shrihari Saduwale Srinivasa Reddy Vempada
10	201	A review paper on Condition Monitoring Strategies and Fault Diagnosis Methods in Rotor Dynamics	Rajli Adhav Prof. Pravin Gosavi Dr. Asif Qureshi
11	202	A Review on Vibration Based Condition Monitoring of Bearings–A Rotor dynamics Perspective	Saniya Naik Pravin Gosavi
12	203	Investigation of dynamic characteristics of the rotor bearing system with simulation in ansys workbench	Kalpesh S. Magdum Aditya V. Sarvade Om A. Basarikatti Prerana R. Nangare Omkar A. Kanade Pravin S. Gosavi
13	401	An Investigation of the Effect of Pilot Injection on the Performance of a Common Rail Direct	Kavati Venkateswarlu, Jalleda Anjaneyulu Kavati Veladri



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AN Session : 02.30 P.M to 04.10 P.M

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SI.No	Paper ID	Paper Details	Author
1	204	Numerical analysis of vibration characteristics of rotor-bearing system with faults in skf 6206 bearing	Pravin S. Gosavi R. G. Desavale
2	216	Fabrication of hybrid motor vehicle: conversion of kinetic luna into a hybrid vehicle	Maddi Venu Gopal Reddy Kura Prashanth Kumar Puttharaj Parameshwar Challa Dinesh
3	226	Topology optimization of aerospace engine bracket under multi-loading conditions	S.Kirthana Dr.T.Ramamohan Rao
4	245	Modelling and fabrication of aurdino controlled humanoid robot	Dr.B. Naga Sudha Rani B. Murali Krishna M. Bala Bhargav Ch. Saketh B.Uma Maheswara Rao V.Charan B.Poulraju
5	244	Development of mechanical characterization of bagasse-based natural fiber reinforced polymer composite	Devarakonda Shiva Sai Subham Kumar Singh Anish Chattaraj Kamireddi varun chandu D Sri Laxmi Durga D Harish Kumar Jai Inder Preet Singh



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6	246	Design of Non-Explosive Release Actuator Using Shape Memory Alloy	Y. Venkata Narayana Maloth Santhosh
7	316	Design and fabrication of gesture controlled robot	Koppuravuri Srinivasa Rao Syed Habeeb Ur Rehman Khaja Mubashir Uddin Adil Ahmed
8	214	Design and Analysis of the Drive Shaft of a Four-Wheeler using Composite Materials	Syamala Sreerishna Indusri Bojaraju Bhumandla Rajitha Gundoju Sai Anugna
9	219	Development of IC engine performance analysis tool using python	Durga Vilas Gayatri Vineela Marrivada
10	230	Modelling and simulation of an edf jet engine and propeller for drone applications	Ramavath Tharun Gayatri Vineela Marrivada
11	305	Impact of Design Thinking on student engagement & Success in Engineering colleges	Dr B V S Rao Dr P Prabhakar Reddy D S Madhuri
12	222	Machine learning Optimization of CI Engine Performance Using WSA Algorithm and Prosopis Juliflora Biofuel	N.Sethuraman S.Vinodraj R.Thamizhvel D.Prithiviraj K.Karthikraja
13	317	AI - Enhanced Project Management System	Dr. M. Sunitha Dr.T.Adilakshmi K.Harjeeth



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Sl.No	Paper ID	Paper Details	Author
1	324	Optimization of Selective Laser Melting Process Parameters for Wear-Resistant AISi10Mg Alloy 3D-Printed Aerospace Components Using Taguchi Method	Mudda Nirish Buschaiah Karolla R.Rajendra
2	326	Material Optimization for Two-Wheeler Shock Absorber Springs: Design and Analysis Approach	G. Sailaja G Prasanna Kumar Faisal Abdul Qader Ishrat Meera Mirzana Irfan Sadaq Arshad Mohammad
3	319	Investigation of Microstructural Evolution in Ti-48Al-2Cr-2Nb Alloy under Micro-EDM Drilling: AN Experimental Approach	Pranav Ravindrannair K Kishore P Laxminarayana M Vijay
4	312	state space modelling of a RR robotic system with dynamic base by bond graph method	K.Veladri Rohan Aaron I S.Harshini K.Meghana
5	314	Optimization of Micro-EDM Process Parameters using Grey Relational Analysis on Tungsten Carbide	Jalli Kantharao Praveen Kumar Thadikonda B Sandeep



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6	315	Design and Development of a Pest Removal Machine using ultrasonics	J. Anjaneyulu D. Shyam Jagadeesh B. Vikas Kumar K. Vijay
7	235	CAPACITATED VEHICLE ROUTING PROBLEM WITH FIXED POSITION CONSTRAINT	Naga Anuradha chengalvala
8	409	Evaluating the performance of diesel engine with diesel-plastic fuel blend as an alternate fuel	Pothuri Venkateswara Rao Suda Venkateswarulu G. Narendar J. Pavani G.I. Mahith Simha Reddy
9	211	Design, Analysis and Cost Estimation of a Reactor Pressure Vessel	D.Govinda Rao B.Sandeep K.I.Spurgeon B.N.Manohar
10	417	A review on magnetic powered engine	Gannu Abhiram Kallepalli Santosh Kumar Gunda Rakesh Kumar