

# Advances in Design, Materials, Manufacturing and Surface Engineering for Mobility

### TECHNICAL PAPER PRESENTATION SCHEDULE

ADMMS'23 - Event Schedule, Venue: SRM Institute of Science & Technology, Chennai.

DAY	07:30 - 09:00	09.00 – 09.45	09.45 – 10.30	10.30 -11.00	11.00 -13:00	13:00 -14:00	14:00 -14:30	14:30 -15:00	15:00 - 15:30	15:30 - 17:30	17:30 - 19:00	19:00 - 20:00
27-Oct-23	Breakfast and Registration	Inauguration and Key note		Networking TEA	Session 1 - 4	Networking LUNCH	Plenary Session - 1	Plenary Session - 2	Networking TEA	Session 5 - 8		Dinner
28-Oct-23	Breakfast and Registration	Plenary Session - 3	Session 9 - 12		Session 9 - 12		Poster Presentation & Plenary Session - 4	Valedictory				

Time	Session 1	Session 2	Session 3	Session 4
	Design - I	Materials - I	Manufacturing- I	Modelling & Analysis - I
<b>27th October, 2023</b> <b>11:00-01:00</b>	<b>Improvement of torque density using output reduction method in Transmission</b> 2023-28-0050 Authors from Mahindra & Mahindra, Ltd	<b>Experimental Investigations on NOx Reduction Using Antioxidant Additives in Conjunction with SCR in a Diesel Engine Powered by Ricinus Communis Biodiesel</b> 2023-28-0059 Authors from Mohan Babu University	<b>Machinability Investigations on Wire Electrical Discharge Machining of Aluminium Based Composites for auto parts</b> 2023-28-0075 Authors from Mohan Babu University;	<b>CFD Analysis of Fuel Tank to Reduce Liquid Sloshing</b> Sayan Biswas Vellore Institute of Technology, Chennai; 2023-28-0084 Authors from Vellore Institute of Technology, Chennai;
	<b>Revolutionizing Electric Mobility: The Latest Breakthroughs in Tyre Design</b> 2023-28-0056 Authors from Apollo Tyres, Ltd	<b>Experimental investigation on the properties of briquettes made from ideal municipal waste materials: an alternate fuel</b> 2023-28-0060 Authors from SRM Institute of Science and Technology	<b>Mechanical and Microstructure Analysis of Pulsed Current Gas Tungsten Arc Welded Dissimilar Duplex UNS 2205 and Austenitic (ASS 321) Stainless Steel Joints</b> 2023-28-0076 Authors from JNTUA, Ananthapuramu	<b>Numerical Investigation on the Design and Development of Automotive Exhaust Muffler A Case Study</b> 2023-28-0085 Authors from Mahindra Research Valley;
	<b>Design and Analysis of Retrofit for Root Crop Harvester</b> 2023-28-0052 Authors from Bannari Amman Institute of Technology	<b>Performance investigation on diesel engine powered by ternary blends of linseed and calophyllum inophyllum methyl esters</b> 2023-28-0061 Authors from Mepco Schlenk Engineering College;	<b>Parallel Scheduling of Machines and Tools Without Tool Delay Using Symbiotic Organisms Search Algorithm</b> 2023-28-0142 Authors from Annamacharya Institute of Tech and Sci.;	<b>Design and Thermal Analysis of Battery Thermal Management System for EV</b> 2023-28-0087 Authors from Bannari Amman Institute of Technology;
	<b>Cold Condition N to 1 Gearshift Blockage Analysis in A Manual Transmission Gearbox</b> 2023-28-0053 Authors from Mahindra & Mahindra Ltd	<b>Experimental investigation of plastic pyrolysis oil in DI diesel engine to analyze performance and emission characteristics</b> 2023-28-0062 Authors from St Josephs College of Engg & Tech.Palai	<b>Evolution of regression and neural network models on Wire Electrical Discharge Machining of Nickel Based Superalloy for sports motor vehicle application</b> 2023-28-0078 Authors from Mohan Babu University	<b>Predictive Modeling and Process Parameter Prediction for Monel 400 Wire Electrical Discharge Machining for rocket frames</b> 2023-28-0088 Authors from Mohan Babu University;
	<b>Integration of Automatic Speed Reducers and Motion Stabilizers for Improved Turn Ability in Two-Wheelers</b> 2023-28-0120 Authors from Sastra Deemed to be University;	<b>Machinability studies and the evolution of hybrid artificial intelligent tools for Advanced Machining of Nickel Alloy for aerospace applications</b> 2023-28-0065 Authors from Mohan Babu University	<b>Development of Artificial Neural Network model for CNC drilling of AA6061 with coated textured tool for auto parts</b> 2023-28-0079 Authors from Mohan Babu University;	<b>Optimization of Energy Absorption and Deformation Characteristics of Aluminium Crash Box with The Effect of Groove Along with A Screw</b> 2023-28-0089 Authors from Hindustan Institute of Technology and Science
	<b>Numerical Analysis and Optimization of Heat Transfer for FSAE Radiator for Various Sidepod Designs</b> 2023-28-0055 Authors from Vellore Institute of Technology, Chennai	<b>Preparation and characterization of Hollow glass microspheres reinforced carbon/epoxy composites</b> 2023-28-0066 Authors from DRDO;	<b>Load Bearing Analysis of a Titanium surface ground with 6%CNT incorporated Grinding Wheel.</b> 2023-28-0080 Authors from SRMIST;	<b>Modelling of an IPMSM drive and Investigation of the Torque ripple and THD with SVPWM and SPWM</b> 2023-28-0090 Authors from ZF India Pvt. Ltd.;
	<b>Synchronizer Spring Failure - Investigation and Design Recommendations</b> 2023-28-0051 Authors from Mahindra & Mahindra Ltd	<b>Development of Organic Composite Materials for Brake pads</b> 2023-28-0069 Authors from VR Siddhartha Engineering College	<b>Design And Fabrication of FDM Adapter Head Setup for CNC Milling Machine</b> 2023-28-0081 Authors from Bannari Amman Institute of Technology;	<b>Suppression of B-Field &amp; E-Field Effects on Resolver due to Overhang Components in Traction Motor Applications.</b> 2023-28-0091 Authors from ZF India Pvt. Ltd.;
				<b>Investigation on Hybrid Cooling Topologies of Li-ion Battery Pack for Electric Vehicles</b> 2023-28-0173 Authors from NIT Trichy

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28-Oct-23	Breakfast and Registration	Plenary Session - 3	Session 9 - 12		Session 9 - 12		Poster Presentation & Plenary Session - 4			Valedictory		

Time	Session 5	Session 6	Session 7	Session 8
	Materials - II	Manufacturing- II	Modelling & Analysis - II	Manufacturing- III
<b>27th October, 2023</b> <b>03:30-05:30</b>	<b>Investigation of Mechanical Properties and Drilling parameters of Sesbania rostrata Fiber Reinforced Polycaprolactone Biodegradable Composite</b> 2023-28-0073 Authors from K S Rangasamy College of Technology	<b>Artificial Intelligence model for Machinability investigations on Drilling of AA6061 with micro textured tool for automobile applications</b> 2023-28-0082 Authors from Mohan Babu University;	<b>Moisture induced mechanical characterization of composite through numerical simulation</b> 2023-28-0092 Authors from Indian Institute of Information Technology;	<b>Application of Taguchi based ANFIS approach in Wire Electrical Discharge Machining of Inconel 625 for automobile applications</b> 2023-28-0148 Authors from Mohan Babu University;
	<b>Investigation on Micro-explosion effect using Water blended Karanji Ester in a CI Engine with Exhaust Gas Recirculation</b> 2023-28-0074 Authors from Mohan Babu University, Tirupati;	<b>Optimization of Spark Erosion Machining of Monel 400 alloy for automobile applications</b> 2023-28-0140 Authors from Mohan Babu University;	<b>Design of Solar Power Conversion using Silicon Nanowire Photonic Crystals for Electric Vehicles</b> 2023-28-0093 Authors from Mohan Babu University	<b>A Comparative Analysis on Corrosion Behavior on Precipitation Hardened Stainless Steel Weldments for Car parts</b> 2023-28-0149 Authors from Adhi College of Engineering and Technology;
	<b>Performance and emission investigation of Linseed oil Jatropa oil ternary blends in a direct injection diesel engine fuelled with ethanol as an additive</b> 2023-28-0125 Authors from Mepco Schlenk Engineering College	<b>Optimizing Concurrent Scheduling of Machines and Tools in a Flexible Manufacturing System with Alternating Machines using the Flower Pollination Algorithm</b> 2023-28-0141 Authors from Annamacharya Institute of Tech and Sci.;	<b>Design, Modelling and Simulation of Adaptable Marine and Terrestrial Cleaner</b> 2023-28-0165 Authors from Bannari Amman Institute of Technology;	<b>IoT Integrated Advanced Mor-Sockets For Smart Devices</b> 2023-28-0150 Authors from, SRM Institute of Science and Technology
	<b>Development of asbestos free aramid fibre based friction lining material for automotive application</b> 2023-28-0122 Authors from RVS Education Trust Group of Institution;	<b>Multi-objective optimization of laser cutting process on Al7075 metal matrix composites for Automobile Applications</b> 2023-28-0077 Authors from JNTU College of Engineering Anantapuram;	<b>Modelling and Simulation of Solar Powered Thermoelectric Generator for Electric Food Delivery Pick-up Truck</b> 2023-28-0096 Authors from VNR Vignana Jyothi Institute of Engineering;	<b>Application of Taguchi Approach on Wire Electrical Discharge Machining of SS304 for automotive applications</b> 2023-28-0151 Authors from Mohan Babu University;
	<b>Machinability Investigations on Wire Electrical Discharge Machining of Inconel 625 by Taguchi based Grey Approach</b> 2023-28-0124 Authors from Mohan Babu University	<b>Machinability Investigations on Ti-6Al-4V (Grade 5) Wire Electrical Discharge Machining Using the Taguchi Approach for auto parts</b> 2023-28-0144 Authors from Mohan Babu University	<b>Study the Effect of Pneumatic Valve Characteristics due to Linear and Non-Linear Damping System</b> 2023-28-0160 Authors from ZF Group;	<b>Application Of Grey Taguchi Method For Optimization Of Edm Process Parameters On Stircasted Aluminium Hybrid Metal Matrix Composites</b> 2023-28-0152 Authors from Mohan Babu University;
	<b>Investigations on the effects of chemical treatment on mechanical Properties of Thespesia Lampas fiber reinforced composites for Automobile Applications</b> 2023-28-0121 Authors from Mohan Babu University	<b>Machine Learning approach to predict hardness and bead dimension in Wire Arc Additive Manufacturing</b> 2023-28-0145 Authors from SRM Institute of Science and Technology;	<b>Design Improvement of an Automotive-shock Absorber Component Subjected to Fretting Fatigue</b> 2023-28-0157 Authors from Rambal Limited, Thiruporur, Tamil Nadu;	<b>Optimization of Axial Forming Process Parameters through Mathematical Modelling Approach</b> 2023-28-0154 Authors from ZF India Private Limited;
	<b>Development of silicon carbide dispersed steel using Wire Arc Additive Manufacturing process</b> 2023-28-0126 Authors from SRM Institute of Science and Technology;	<b>Application of optimization Technique on Spark Erosion Machining of AA 2014 alloy for aircraft components</b> 2023-28-0146 Authors from Mohan Babu University	<b>Optimization of Cooling Efficiency in Inverter Assembly using Numerical and Experimental Analysis</b> 2023-28-0162 Authors from ZF India Ltd;	<b>Investigations on Wire Electrical Discharge Machining of Magnesium Alloy for automobile parts</b> 2023-28-0155 Authors from Mohan Babu University;

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Time	Session 9	Session 10	Session 11	Session 12
	Advanced Mobility- I	Design - II	Materials - III	Modelling & Analysis - III
28th October, 2023 09:45-01:00	Integration of Bilevel Model and Mixed Integer Linear Programming for Optimization of Electric Vehicle Charging Stations with Distributed Energy Sources 2023-28-0100 Authors from SRM Institute of Science and Technology	Analysis of Transient Thermoelastic Behaviour in Disc Brakes Using Finite Element Methods 2023-28-0057 Authors from FCA Engineering India Pvt Ltd;	Influence of Al <sub>2</sub> O <sub>3</sub> and TiO <sub>2</sub> nanoadditive biodiesel blends on Performance and Emission Parameters of a DI Diesel engine 2023-28-0127 Authors from Anchupogu Bapatla Engineering college;	Ride Comfort Analysis of Passive and Air Suspension System of Quarter-and-Half Car Using MATLAB/SIMULINK 2023-28-0159 Authors from ZF India Ltd;
	Approach to Develop Reliable Two-Wheeler EV Powertrains 2023-28-0101 Authors from BLW Precision Forging Ltd.;	Impact of Tyres on Electric Vehicle Ride Comfort Performance 2023-28-0058 Authors from Apollo Tyres, Ltd.	Enhancing the performance of DOC and SCR after-treatment devices using statistical techniques and heating strategies 2023-28-0128 Authors from SRM Institute Of Science And Technology;	Interleaved Landsman Converter Fed EV Battery Charger 2023-28-0098 Authors from SRM Institute of Science and Technology
	Static inductive wireless charging station for electric vehicle 2023-28-0102 Authors from SRM Institute of Science and Technology	Experimental investigation of Efficiency Enhancement of Manual Transmission Gearbox Synchronizer Rings for the Enrichment of Gearshift Quality 2023-28-0114 Authors from Mahindra & Mahindra, Ltd.	Preparation of Copper Zinc Tin Sulfide Thin Films Solar Cells By Chemical Synthesis 2023-28-0139 Authors from Mohan Babu University;	Computational study on the handling performance expected upon converting propulsion system of a scooter from IC engine to Electric 2023-28-0158 Authors from Sastra Deemed to be University
	Electric Bikes as Exercise Equipment: A Technical Study on Design and Energy Recovery for Home and Fitness Center Use 2023-28-0104 Authors from Valeo India Private Limited;	Improving The Gearbox Efficiency By Reducing Drag Loss In Automotive Manual Transmission 2023-28-0115 Authors from Mahindra & Mahindra, Ltd.;	Effect of ZrO <sub>2</sub> nanoparticles loading on the Tribo-Mechanical behavior of magnesium alloy nanocomposites 2023-28-0130 Authors from Dhanalakshmi Srinivasan Institute of tec;	Multiple Regression Analysis for Ti-6Al-4V Wire Electrical Discharge Machining (Grade 5) for light weight automobile applications 2023-28-0163 Authors from Mohan Babu University;
	Comparative analysis of control techniques for Electric Vehicle with PMSM motor drives for Voltage selection techniques and torque-flux mitigation 2023-28-0105 Authors from SRM Institute of Science and Technology	Reduction In Synchronizer Ring Wear and Improving the Cone Torque Generation by Enhancing the Lapping Operation Using Statistical Technique 2023-28-0116 Authors from Mahindra & Mahindra Ltd;	Development of Hybrid Natural Fiber Composite Material for Automotive Applications 2023-28-0131 Authors from Geethanjali College of Engineering and Technology	Simulation and Analysis of Quarter Car Model for Low-Cost Suspension Test Rig 2023-28-0164 Authors from Bannari Amman Institute of Technology
	An Assessment of Performance of Compression Ignition Engine fueled with Diesel-Biobutanol Blends enhanced with Castor Oil for properties 2023-28-0107 Authors from Hindustan Institute of Technology & Science;	Modeling and Analysis of Motorcycle Assembly for Dynamic Investigation 2023-28-0117 Authors from Vellore Institute of Technology Chennai	Effect of Soft Reinforcement Particles on Microstructural, Mechanical and Tribological Properties of Sintered Copper-Based Brake Composite Friction Material 2023-28-0132 Authors from IIT Madras	Evaluation of Mechanical Vibration in Permanent Magnet Electric Motor Construction and its effects in speed high Operation. 2023-28-0171 Authors from Hindustan Institute of Tech. Science;
	Design of an efficient bidirectional buck boost converter for V2G and G2V operation in Electric Vehicles 2023-28-0176 Authors from SRM Institute of Science and Technology	Virtual Reality based study on pre-impact position of Auto Rickshaw Driver 2023-28-0118 Authors from Sastra Deemed University;	ADI - Green Design Alternative for Circular Economy 2023-28-0134 Authors from Volvo	Application of Taguchi based ANFIS approach in Wire Electrical Discharge Machining of Haste alloy C276 for automobile applications 2023-28-0167 Authors from Mohan Babu University;
	Experimental Investigation on Biogas operated Electric Vehicle Charging Station 2023-28-0178 Authors from Kongu Engineering College;	An evaluation of Gear-Shift Impulse of Two Different Architectures of a High-Torque Capacity Manual Inline Transmission 2023-28-0119 Authors from Mahindra & Mahindra, Ltd.;	Taguchi's Approach to Wire Electrical Discharge Machining of Magnesium Alloy AZ31B 2023-28-0136 Authors from Mohan Babu University	Modelling and Simulation Methodology for Mechanical control cable to accurately predict the Performance and Efficiency 2023-28-0168 Authors from Mahindra & Mahindra, Ltd.;
	Design and Investigation of Automatic Trash Collecting Machine for Industry 2023-28-0179 Authors from KCG College of Technology;	Effect Of Temperature on Synchronizer Ring Performance 2023-28-0054 Authors from Mahindra Research Valley	A Comprehensive Exergy Analysis of CI Engines with Hydrogen Injection for Enhanced Performance 2023-28-0129 Authors from Srm Institute of Science And Technology;	Design Optimization of Solar Energy Harvesting using Perovskite Solar Cell For Electric Vehicles using Finite Element Method 2023-28-0095 Authors from Mohan Babu University