



International Conference on Modern Manufacturing and Management Intelligence  
(ICMMMI 2025)

Department of Production and Industrial Engineering  
National Institute of Technology Jamshedpur

27 Feb - 1 Mar, 2025

**PRESENTATION SCHEDULE**



Track	Area	Date & Time	Room No.	Chairs	Volunteers
1	Advanced/Futuristic Materials/ Smart Materials/ Surface Engineering	27/2/2025 2:00 – 3:30 PM	DJLHC 212	Dr. Simanchal Kar Dr. Tushar Banerjee	Himanshu Batham Saroj Kumar

Paper ID	Title	Registered Author
127	Recycling of HDPE waste from Cable stay Sheathing: Characterisation and Study of Morphological, Mechanical, Environmental properties	Pravin B Bachhav
42	Recent Developments in Friction Stir Processing in Metal Matrix Composites	Abhinav Giritharan
64	Experimental study of different protective clothing against molten metal exposure	Atul Kumar
94	A Palladium/Tin and Chromic Acid Free Pretreatment, Nickel-Phosphorus Electroless Coating on PET	Budhram Boipai
71	Finite Element Analysis of Spur Gears Using 217XG, Vanadium Steel, Ni Cr-Mo-V Steel & Chrome Vanadium Materials	Vikas
78	Investigation on Box Girder Bridge Superstructure Subjected to Blast Loading	Tushar
81	A comprehensive study on the microstructure and corrosion behaviour on magnesium-based biodegradable composites: A review	Harshit Kumar
91	Graphene: A review of processing methodologies, potential and futuristic applications and challenges	Sunny Kumar



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<b>Track 2</b>	MCDM/ Business Analytics/Management/ Technology & Knowledge Management	27/2/2025 2:00 – 3:30 PM	DJLHC 312	Dr. Bhaskar Bhowani Dr. Kanika Prasad	Atul Kumar Ankita

Paper ID	Title	Registered Author
63	Mathematical model of EPQ model having price difference dependent demand, non-instantaneous deterioration, with allowable shortage and sustainability cost consideration	Vivek Dubey
104	Sustainable human resource management	Sulekha Kumari
43	Design Principles and Investigative Study on Enhanced Excavator Bucket Design under Different Static Loading Conditions	Yogesh Rangnath Khedkar
53	Evolution of automotive software	Madhanika S
54	A historical perspective on autosar	Piranesh S
55	Software standards for automotive	Pooja V.S
79	Aligning Customer Expectations and Perceptions in Insurance: The CIMAS- SERVQUAL Model	Shubhangi Raman Pranav Kumar
80	Overcoming Service Quality Challenges in Emerging Markets: Evidence from an Indian Hospital	Atishay Tripathi Mukul Raj Anubhav Yash
97	A comprehensive and systematic review of multi-criteria decision-making methods for supplier selection	Ranjan Kumar
100	Enhancing manufacturing efficiency through the optimization of industry 4.0 technologies	Alisha



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<b>3</b>	Advanced Manufacturing Processes	28/2/2025 9:00 – 11:30 AM	DJLHC 212	Dr. N. K. Singh Dr. Kuntal Maji	Pawan Kumar Himanshu Batham

<b>Paper ID</b>	<b>Title</b>	<b>Registered Author</b>
37	Sustainable manufacturing approaches to develop a magnesium-based composite for orthopaedic implants with improved mechanical and corrosion properties: A review	Triloki Nath Mishra
61	Surface Reflectivity of Aluminium alloys in Direct Energy Deposition: A Review	Patel Nikunj Kumar Jitendrabhai
88	A Review on Tool Electrode in the Electrochemical Discharge Machining	Amar Prakash
110	An analysis of microstructure of electroless Ni-P-Graphene composite coating on Ti-6Al-4V alloy: A review.	Saroj Kumar
120	Optimization of Single-Point Incremental Forming Process Parameters of Titanium Grade 4 Sheets Using EWMM Deng's Similarity Approach	Gorla Venkata Siva
124	Maximizing strength and surface quality of PETG 3 D printed specimen suitable for medical application	Vipul
128	Development and characterization of Magnesium alloy with surface modified hydroxyapatite composite for orthopaedic application	Md Manzar Iqbal
50	Eco-Friendly Dielectric Fluids in EDM: Performance and Sustainability Analysis	Pankaj Kumar Rawat
52	Influence of Thermal Aging on Microstructure and Hardness of Additively Manufactured L-DED 316L Stainless Steel	Muthe Srikanth
59	Microstructural Analysis of Mild Steel in Metal Inert Gas (MIG) Hard facing Process.	Muthe Srikanth
76	Review and a case study of Wheeled Mobile Robots from Mechanical aspects along with Path Optimization Algorithms used	Amey Vasant Rao Sutar
83	Biochar-Reinforced Polymer Composites: Applications and Mechanical Performance	Adarsh Chaurasiya
86	Optimization of process parameters for tig welding of dissimilar metals using Taguchi method	Binoree Das
113	To study about the microstructure and mechanical behaviour of AISI 4340 Steel	Neeraj
117	Comprehensive Review of Power Tiller Innovations: Balancing Productivity, Sustainability, and Operator Comfort	Ankit Yadav



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118	Significant Advancement in Metal Matrix Composite Fabrication: A Comprehensive Review	Rohit Singh
119	Dry Sliding Wear Behaviour of Aluminium Alloy7075 Nano Composite reinforced with Cr <sub>3</sub> C <sub>2</sub>	Vijay Katare
125	Micro-electric discharge machining (Micro-EDM) of Nickel Titanium (NiTi): A review	Anupam Kumar

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<b>Track 4</b>	Supply Chain Management/Circular Economy/Closed-loop supply chain/ Risk Management	28/2/2025 9:00 – 11:30 AM	DJLHC 312	Dr. Mohit Tyagi Dr. Dinesh Kumar	Rohit Roy Gautam Prasad

<b>Paper ID</b>	<b>Title</b>	<b>Registered Author</b>
35	Approaches, Methods and Tools to Achieve Circularity of Single Use Plastics: A Critical literature review	Ankita Gupta
58	A study on multi-item inventory system under cross perishability condition and backlogging	Gautam Prasad
95	Behavioural Factors influencing Supply Chain Management: A Systematic Literature Review	Shrejal Kumari
98	Sentiment Analysis in the Semiconductor Supply Chain Using Machine Learning	Rohit Roy
99	Mathematical modelling for optimizing the transportation cost of paddy from MSP centre to MILL in Saraikella-kharsawan district of Jharkhand	Ananta Kumar Mahato
56	Green Investment in Manufacturing and Electric Vehicle (E.V) in Transportation	Gautam Prasad
38	Optimum Dispatching Policies for Perishable Items with Demand Forecasting Using Machine Learning	Ankita Gupta
87	AI-Powered Smart E-Cheque Validation and Fraud Detection System	Gunja Rahul
108	Application of AHP-TOPSIS approaches for prioritizing barriers and their solutions in agriculture-based supply chain	Ravi Kant
114	Examining the Role of Institutional In-capabilities in Obstructing Sustainable Supply Chain Practices: A Qualitative Analysis	Shagun Smith
116	Unlocking Sustainability: A Bibliometric and Systematic Review of Blockchain in Supply Chain Management	Ritu Rani

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<b>5</b>	3D Printing/ Near-Net Shape Manufacturing/ Sustainable Manufacturing	28/2/2025 2:00 – 4:00 PM	DJLHC 212	Dr. Kamal Pal Dr. Susmita Dutta	Gautam Prasad Gorla Venkatasiva

<b>Paper ID</b>	<b>Title</b>	<b>Registered Author</b>
102	Exploring the Challenges for Industry 4.0 Adoption in Green Manufacturing: An Empirical Study	Yerukali Mounika
103	Analysing the Drivers towards the Adoption of Industry 4.0 Practices in Green Manufacturing	Shashwat Saha Rishabh Kumar Sharma
36	Overview of multiple indicators used in the perishable food system for sustainability measurement	Mohammad Haider
39	Improving Grindability of Ti-6Al-4V alloy using eco-friendly MQL techniques with cooled air jet	Sunil Kumar Singh
60	Characterization of a new natural fibre extracted from the roots of Ficus Benghalensis	Saran M
126	"A Sustainable Manufacturing Perspective on Solar-Powered Pneumatic Reciprocating Pumps for Agricultural Applications"	Harshitha B K Ramya C R Chaithra SV
40	Recent Developments in Friction Stir Additive Manufacturing of Functionally Graded Materials	Abhinav Giritharan
41	Current Challenges and Opportunities in Wire Arc Additive Manufacturing of High Entropy Alloys	Abhinav Giritharan
72	Desirability function based Multi-Objective Optimisation of Process Parameters for Fused Deposition Modelling	Nikhil Raut
92	Design and development of Thermionic Cathode for Electron Beam Powder Bed Fusion process	Avinash Kumar Mehta



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<b>Track 6</b>	Data Analytics/ ML/ IoT Applications/TQM/Quality Assurance/ Reliability and Maintenance	28/2/2025 2:00 – 4:00 PM	DJLHC 312	Dr. Dilbagh Panchal, Dr. C. S. Azad, Dr. Dinesh Kumar (CSE)	Ankita Rohit Roy

Paper ID	Title	Registered Author
46	The role of Project Management in Microfinance Institutions: A comprehensive bibliometric analysis and future research direction	Ramjeevan Prasad Das
112	Physics-informed Classification for Predictive Maintenance of Machines	Mallika Gupta
105	Energy Consumption Performance Analysis and Optimization in a University Campus	Umang Verma Tanya Madaan Sneha Kumari Raushan Yadav Ujjwal Kumar
44	Comparative Analysis of Swin Transformer Architectures for Pneumonia Detection: Evaluating Performance with ResNet50 and Inception ResNet50 Integration	Pratyush Pallav
77	Optimizing Credit Risk Management in Retail Banking with Machine Learning Models	Sambhavi Muskan Shree
89	Valence and Arousal Prediction in Dynamic Environments Using CNN-based Ensemble Models	M S Vineeth
106	Comparative Analysis of ARIMA and LSTM Models for Accurate Demand Forecasting and Inventory Management	Rohan Purohit
57	Implementation of Industry 4.0 & Development of Digital Twin Model for Metal Injection Moulding Machine.	Rajeev Kumar Arora
107	Reliability Centred Maintenance concept-based study of Wheel Set in Rolling Stock	Meenakshi

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<b>7</b>	Machining Processes/ Welding Processes/ Metal Forming	01/03/2025 9:00 – 11:30 AM	DJLHC 212	Dr. Pankaj Kumar Dr. G. Yoganjaneyulu Dr. Shubham Tripathi	Vivek Dubey Gorla Venkatasiva

<b>Paper ID</b>	<b>Title</b>	<b>Registered Author</b>
45	Multipass Friction stir Butt and Lap joint of dissimilar light-weight metals: A Review	Shyam Narayan Divakar
65	Investigation into the weldability of dissimilar joints of DP780 and DP980 steels fabricated by Laser welding	Sumit Kumar
67	SVM modelling of rotary friction welding	Avishek Samanta
70	The effect of welding parameters in micro plasma arc welding of titanium thin sheets	Kasif Ansari
73	An extensive review on influence of Cold Metal Transfer welding on weld characteristics in dissimilar welding of Aluminium and Copper	Neeraj Kumar
93	Effect of ultrasonic agitation process on the structure of 0-1 $\mu\text{m}$ diamond grit micro-grinding tool fabricated by the Electroless coating route	Himanshu Batham
75	Investigating Exposure Time for Efficient Microwave Joining of Monel400 and SS304 Using a Graphite Separator Sheet at 1200 W Power	Manjunath Ramesh Rawal
115	Analysing the Impact of Modes of Metal Transfer on the Residual Stress and Distortion in Gas Metal Arc Welding of Stainless Steel using Thermo-mechanical Simulation	Dhrubajit Mondal
51	Optimization of CNC Milling Parameters for Zamak 3 Alloy	Rithika Jayabharathi Yuvarajan
109	A Comparative analysis of Grinding of HCHCr D2 steel under different environments.	Jashveer Singh