

2nd International Conference on Emerging Materials, Smart Manufacturing & Computational Intelligence
ICEMSMCI-2024

Time	Day 1 – July 18th, 2024 (Offline)
09:50 AM– 10:00 AM	Inauguration Ceremony (Venue - Pierre Hall)
	Virtual Campus Tour
	Welcome Address
10:00 AM - 10:05 AM	Lighting the Lamp
10:05 AM - 10:10 AM	Saraswati Vandana
10:10 AM - 10:20 AM	Welcoming and Honoring the Delegates
10:20 AM - 10:25 AM	Breifing about Chitkara University & Conference
10:25 AM - 10:26 AM	Welcome note for Dr. Ankit Sharma, Associate Director (Research), Conference General Chair & Convener
10:26 AM - 10:34 AM	Address by Dr. Ankit Sharma, Associate Director (Research), Conference General Chair & Convener
10:34 AM - 10:35 AM	Vote of thanks for Dr. Ankit Sharma, Associate Director (Research), Conference General Chair & Convener
10:35 AM- 10:37 AM	Welcome note for Honorable Pro-Chancellor Dr. Madhu Chitkara, Chitkara University, Punjab
10:37 AM- 10:47 AM	Address by Honorable Pro-Chancellor Dr. Madhu Chitkara, Chitkara University, Punjab

10:47 AM – 10:48 AM	Vote of thanks to Honorable Pro-Chancellor Dr. Madhu Chitkara, Chitkara University, Punjab
10:48 AM - 10:50 AM	Welcome note for Honorable Vice Chancellor, Dr. Sandhir Sharma, Chitkara University, Punjab
10:52 AM - 11:00 AM	Address by Honorable Vice Chancellor Dr. Sandhir Sharma, Chitkara University, Punjab
11:00 AM - 11:02 AM	Vote of thanks to Honorable Vice Chancellor Dr. Sandhir Sharma, Chitkara University, Punjab
11:02 AM – 11:03 AM	Welcome note for Honorable Pro Vice-Chancellor Dr. Amit Mittal, Chitkara University, Punjab
11:03 AM – 11:15 AM	Address by Honorable Pro Vice-Chancellor Dr. Amit Mittal, Chitkara University, Punjab
11:15 AM – 11:16 AM	Vote of thanks to Honorable Pro Vice-Chancellor Dr. Amit Mittal, Chitkara University, Punjab
11:16 AM – 11:18 AM	Welcome note for Chief Guest Dr. Apurbba Kumar Sharma, Head of the Department - Design, IIT Roorkee
11:18 AM – 11:38 AM	Keynote Address by Chief Guest Dr. Apurbba Kumar Sharma, Head of the Department - Design, IIT Roorkee
11:38 AM – 11:40 AM	Vote of thanks to Chief Guest Dr. Apurbba Kumar Sharma, Head of the Department - Design, IIT Roorkee
11:40 AM - 11:50 AM	Abstract Inauguration & Group Photo
11:50 AM - 12:05 PM	High Tea
12:05 AM - 12:06 AM	Welcome note for Dr. Sanjeev Kumar, Principal Scientist, CSIR-CSIO (Research Lab under Ministry of Science & Technology - Government of India), Chandigarh, India

12:06 PM - 12:21 PM	Keynote Address by Dr. Sanjeev Kumar, Principal Scientist, CSIR-CSIO (Research Lab under Ministry of Science & Technology - Government of India), Chandigarh, India Topic of Presentation - <i>Bio-Signals and Their Applications</i>
12:21 PM - 12:22 PM	Vote of thanks to Dr. Sanjeev Kumar, Principal Scientist, CSIR-CSIO (Research Lab under Ministry of Science & Technology - Government of India), Chandigarh, India
12:22 PM - 12:23 PM	Welcome note for Dr. Navneet Khanna, Associate Professor, Mechanical & Aerospace Engineering Department, IITRAM
12:23 PM - 12:37 PM	Keynote Address by Dr. Navneet Khanna, Associate Professor, Mechanical & Aerospace Engineering Department, IITRAM Topic of Presentation - <i>Aerospace Materials, Machining Challenges, and Sustainable Solutions</i>
12:37 PM - 12:38 PM	Vote of thanks to Dr. Navneet Khanna, Associate Professor, Mechanical & Aerospace Engineering Department, IITRAM
12:38 PM - 12:39 PM	Welcome note for Mr. Mukesh Singh, Associate Vice President at LPS Bossard Pvt Ltd
12:39 PM - 12:54 PM	Keynote Address by Mr. Mukesh Singh, Associate Vice President at LPS Bossard Pvt Ltd Topic of Presentation - <i>Prioritizing Sustainability for a Resilient Future</i>
12:54 PM - 12:55 PM	Vote of thanks to Mr. Mukesh Singh, Associate Vice President at LPS Bossard Pvt Ltd.
12:55 PM - 01:00 PM	About Tracks & Break
01:00 PM - 02:00 PM	Lunch
	Technical Session 1

02:00 PM - 03:30 PM	Track 1 – Sustainable Emerging Material and Smart Manufacturing (Venue - Room No. B001, Edison block)		Track 2 – Sustainability in Sensing and Computing (Venue - Room No. B003, Edison block)		Track 3 – Sustainability in Sensing and Computing (Venue - Room No. B006, Edison block)	
	Track Chair: Dr. Rakesh Goyal		Track Chair: Dr. Kalpna Guleria		Track Chair: Dr. K. R. Ramkumar	
	Keynote Speaker: Dr. Kuldeep Kumar Saxena		Keynote Speaker: Dr. Sunil Agrawal		Keynote Speaker: Dr. Shalli Rani	
	Session Chair: Dr. Pankaj Sonia		Session Chair: Dr. Vinay Kukreja		Session Chair: Dr. Amanpreet Kaur	
	Paper ID	Title	Paper ID	Title	Paper ID	Title
	61	Strategic approach to identify the biowaste and preprocessing strategy for the pyrolysis process	52	Convolutional Neural Network based Computer-Aided Smart Framework for Enhancing Breast Cancer Diagnosis	70	Automated Framework for Early Detection of Fog Events in North India during Winter Season Using kNN Approach
	112	An extremely high detection accuracy surface plasmon resonance-based sensor for the detection of water in ethanol	79	Development of End2End Automatic Speech Recognition System using Wave2Vec2.0 for Punjabi Language	84	Design and Performance Analysis of High Gain Dual Band Rectangular Microstrip Patch Antenna Array for IoT application
	128	Computational and experimental analysis of erosion wear in a pipeline with butterfly valves	113	Emerging Trends and Challenges in Next-Generation Wearable Health Monitoring Devices	130	Permissionless Vs. Permissioned Blockchain: Understanding its Concepts, Platforms and Implementations
		156	Deep Learning and Machine Learning based Algorithms for Breast Cancer Diagnosis Using Histopathological Images	159	Immersive Technologies: Revolutionizing Marketing and Networking Experience	

Time	Day 2 – July 19th, 2024 (Online)
09:30 AM - 09:50 AM	Virtual Campus Tour
09:50 AM - 10:00 AM	Briefing Day 1 Google meet link - meet.google.com/jia-wbxi-cxk
10:00 AM - 10:01 AM	Welcome note for Honorable Pro Vice Chancellor - Research, Dr. Praveen Kumar Khosla, Chitkara University, Punjab, India
10:01 AM - 10:16 AM	Keynote Address by Honorable Pro Vice Chancellor - Research, Dr. Praveen Kumar Khosla, Chitkara University, Punjab, India
10:16 AM - 10:17 AM	Vote of thanks to Honorable Pro Vice Chancellor - Research, Dr. Praveen Kumar Khosla, Chitkara University, Punjab, India
10:17 AM - 10:18 AM	Welcome note for Ms. Priya Vyas, Senior Editor, Applied Sciences and Engineering, Springer Nature
10:18 AM - 10:33 AM	Keynote Address by Ms. Priya Vyas, Senior Editor, Applied Sciences and Engineering, Springer Nature Topic of Presentation - <i>Scientific Writing</i>
10:33 AM - 10: 34 AM	Vote of thanks to Ms. Priya Vyas, Senior Editor, Applied Sciences and Engineering, Springer Nature
10:34 AM - 10:35 AM	Welcome note for Dr. Millos Djukic, Professor, Department of Engineering Materials and Welding, University of Belgrade, Serbia
10:35 AM - 10:50 AM	Keynote Address by Dr. Millos Djukic, Professor, Department of Engineering Materials and Welding, University of Belgrade, Serbia Topic of Presentation - <i>Hydrogen Embrittlement</i>
10:50 AM - 10:51 AM	Vote of thanks to Dr. Millos Djukic, Professor, Department of Engineering Materials and Welding, University of Belgrade, Serbia
10:51 AM - 10:52 AM	Welcome note for Dr. Giuseppe Carbone, Associate Professor, Department of Mechanical, Energy and Management Engineering, University of Calabria, Italy

10:52 AM - 11:07 AM	Keynote Address by Dr. Giuseppe Carbone, Associate Professor, Department of Mechanical, Energy and Management Engineering, University of Calabria, Italy Topic of Presentation - <i>On Innovative Robot Design</i>									
11:07 AM - 11:08 AM	Vote of thanks to Dr. Giuseppe Carbone, Associate Professor, Department of Mechanical, Energy and Management Engineering, University of Calabria, Italy									
11:08 AM - 11:10 AM	Track Announcement									
11:10 AM - 11:30 AM	Break									
11:30 AM - 01:00 PM	Technical Session 2									
	Track 4 - Manufacturing and Robotics Google meet link - meet.google.com/ogs-psxg-wqw		Track 5 - Computational Intelligence & Sensing Technologies Google meet link - meet.google.com/dnu-peup-dpj		Track 6 - Imaging, Computer Vision and IOT Google meet link - meet.google.com/zan-metb-chq		Track 7 - Sustainable Emerging Materials Google meet link - meet.google.com/kaq-qhqr-xcx		Track 8 - AI in Sustainable Development Google meet link - meet.google.com/bqf-hoxq-cgk	
	Track Chair: Dr. Deepam Goyal		Track Chair: Dr. Kalpna Guleria		Track Chair: Dr. Bhisham Sharma & Dr. Bhanu Sharma		Track Chair: Dr. Rakesh Goyal		Track Chair: Dr. K. R. Ramkumar	
	Session Chair: Dr. Jaya Madan		Session Chair: Dr. Yogesh Kumar		Session Chair: Dr. Neha Tuli		Session Chair: Dr. Arpit Mehrotra		Session Chair: Dr. Harjeet Singh	
	Paper ID -	Title	Paper ID -	Title	Paper ID -	Title	Paper ID -	Title	Paper ID -	Title
	72	A Comprehensive Review on Microwave Cladding of Metallic Surfaces and its Future Prospects	22	Sustainable Decentralized Communications-Combining Mesh Networks and Blockchain	29	Smart Vehicle Parking Management Systems: A Review of Technologies and Challenges in Urban Mobility	9	Optimizing Solar Power: Engineering Efficiency in CdTe/MASnI3 Double Absorber Solar Cell	42	Advancements in AI-Driven Technologies for Breast Cancer Detection: Implementing Advanced Image Processing and Machine Learning Techniques

81	Advances in sensing for real-time monitoring of gear oil using pH	27	Deep Learning-Based Musical Instrument Classification Using LSTM Networks	60	Empowering Healthcare with Gender-Specific Predictive Analytics using Machine Learning Models	30	Machine Learning for predictive analysis of Machine Failure Prevention	73	Leveraging Machine Learning Techniques for Early Detection of Parkinson's Disease
110	Early Detection of Myocardial Infarctions: An In-Depth Analysis of Heart Rate Detection Technologies	43	Integrating Cloud-Based Platforms with Industry 5.0 Techniques for Advanced Detection of Breast Cancer	82	Efficient Fire Detection and Classification using Vision Transformer	44	Cyclic Hot Corrosion Behaviour of Rare-earth Oxide Coating on Ni- based Superalloy in V2O5-Na2SO4	74	Software Defect Prediction using Machine Learning Techniques
148	Investigation of Effect of Air gap Eccentricity in Permanent Magnet Synchronous Machine (PMSM)	69	Optimization of fuzzy assignment problem using a dual-module-integrated particle swarm optimization approach	87	IoT Based Advanced Detection Monitoring For Indoor Localization System using WSN Technology	101	Numerical Study on K2CuBiBr6 Perovskite Solar Cell delivering power conversion efficiency of ~17 %	91	DISEASE DETECTION IN TROPICAL FRUITS USING DEEP LEARNING
175	DESIGN AND SIMULATION OF LOW-COST MAGNETORHEOLOGICAL DAMPER	95	Blockchain-Based Defence Logistics Network	88	IoTAgroSense: An Integrated Agricultural Monitoring System with Advanced Sensing, Machine Learning, Image Processing, and Mobile Application Support with Web-Based Management	122	A comprehensive review of Wire Arc Additive Manufacturing (WAAM) process of metallic alloys : Influences of process parameters on bead geometry, microstructure and mechanical properties of produced WAAMed parts	96	Hybrid Metaheuristic Optimization based Credit Card Fraud Detection

206	Comprehensive Review of Fly Ash as Supplemental Cementitious Material for Improving the performance of Concrete	100	A Descriptive Study of Artificial Intelligence Influencing the Tea Destinations for Boosting Tea Tourism	90	Sugarcane Crop Protection from Animals Using Deep Learning	129	Enhancing Concrete Performance with Sugarcane Bagasse Ash: Impact on Workability, Strength and Durability	97	Comparative Analysis of Routing Protocols in MANET
207	Enhancing Sustainability in Construction: A Comprehensive Review of Recycled Concrete Aggregate (RCA)	106	Analysis of Combined Charging System ISO15118 with Hardware in Loop Testing for Simulation of EV and EVSE Communication	107	Application Of IoT In Supply Chain Management And Logistics	151	Active Cell Balancing in Battery Management System Using Single Inductor	138	Distribution Substation Level Short term load forecasting using an effective forecasting model: combining graphical data processing and machine learning regressors
208	Comparative Results of Thermal Analysis on Stainless Steel, High Carbon Chromium Steel, and GCr15 Steel for Deep Groove Ball Bearing	126	Intelligent Automation's Potential to Advance Healthcare: An Intelligent Healthcare Perspective	131	Fuzzy Control for HVAC Systems for Indoor Plants Care using ML Models	186	Influence of Oil Viscosity on Surface and Cutting Forces During MQL Turning Process of SS-316	154	Automated Waste Classification: Leveraging Machine Learning and Deep Learning for Improved Waste Management
214	Comparative Analysis of Conventional vs. Sustainable Concrete with Cementitious Waste Material	139	An approach for Stock Market Trend Prediction by LSTM model	166	Enhancing Communication Options with Sign Language Translation Using Image Processing and IOT for Hearing impaired people	211	Application of Self-Healing Bituminous Mixture using Nano Silica	157	AI-Driven Strategy: Navigating the Fourth Industrial Revolution

	216	Eco-Friendly Materials: Advancing Sustainable Construction with Coatings and Sealants					213	Comprehensive Review of Bamboo And Its Potential in Various Applications And Sustainable Approaches	172	IoT-Enabled Smart Car Systems: To Save the Child from Accidental Locking
	189	Modelling Techniques for the Kinematics of Human Gait					215	Carbon Footprint of Conventional Concrete Compared to Sustainable Alternatives	181	Machine-assisted diagnosis and prediction of Traumatic Brain Injury: A survey
01:00 PM - 02:00 PM	Lunch									
02:00 PM Onwards	Valedictory Session (Venue - Pierre Hall)									
02:00 PM - 02:02 PM	Welcome note for Honorable Pro Vice-Chancellor Dr. Amit Mittal, Chitkara University, Punjab									
02:02 PM - 02:10 PM	Address by Honorable Pro Vice-Chancellor Dr. Amit Mittal, Chitkara University, Punjab									
02:10 PM - 02:11 PM	Vote of thanks to Honorable Pro Vice-Chancellor Dr. Amit Mittal, Chitkara University, Punjab									
02:11 PM - 02:12 PM	Welcome note for Dr. Ankit Sharma, Associate Director (Research), Conference General Chair & Convener									
02:12 PM - 02:17 PM	Address by Dr. Ankit Sharma, Associate Director (Research), Conference General Chair & Convener									
02:17 PM - 02:20 PM	Vote of thanks to Dr. Ankit Sharma, Associate Director (Research), Conference General Chair & Convener									
02:20 PM - 02:40 PM	Award Ceremony Announcement									
02:40 PM - 02:45 PM	Vote of thanks									
02:45 PM - 03:00 PM	High Tea (Open Theatre)									

