



School of Mechanical Engineering

**International Conference on Recent Advances in Industrial and Systems Engineering 2023 (RAISE 2023)
December 20-22, 2023**

Conference Schedule – Session Chair and Hall In-Charge Details

DAY 1 – 20.12.2023 [Wednesday]

Time		Event	
10:00 A.M. – 11:00 A.M.		Inaugural Ceremony of RAISE 2023 – Dr. M. Channa Reddy Auditorium	
11:15 A.M. – 11:30 A.M.		Tea Break	
11:20 A.M. to 12: 45 P.M. [RAJAJI HALL]		Session Chair : Dr. R. Ramanujam Hall In-charge : Dr. G. Nataraj	
11:20 A.M. – 12:00 Noon		Keynote 1 Prof. Constantin Blome, Academic Dean & Professor Lancaster University Leipzig, Germany	
12:05 A.M. – 12:45 P.M.		Keynote 2 Dr. Sunil Luthra, Director, AICTE, New Delhi, India	
02:05P.M. – 02:45 P.M.		Keynote 3 Mr. Anand V Pujari, Education Accounts Manager, Autodesk	
Conference Lunch – C.S. Hall [12:45 P.M. – 2:00 P.M.]			
2.45 P.M. - 5.30 P.M.	Session -I RAJAJI HALL	Session Chair : Dr. R. Ramanujam Hall In-charge : Dr. G. Nataraj Technical Sessions	
		Paper ID	Title
		82	The Human-Centric Industry 5.0: Empowering the Workforce for a Sustainable Future
		101	Applications of Taguchi-Based Grey Approach for Optimization of Wire Electrical Discharge Machining of 7075 Aluminium Alloy



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		102	Evolution of Hybrid Forecast Model for Wire Electro Discharge Machining of Aluminium Alloy with Sustainable Approach	
		103	Optimization of Sustainable Wire Electrical Discharge of Low Carbon Steel SAE 1010 using Taguchi Grey Approach	
		104	Application of Hybrid Artificial Intelligence Approach for Forecast of Performance Metrics in Sustainable Wire Electro Discharge Machining of SAE 1010 Low carbon steel	
	Session -II MB 210	Session Chair : Dr. Darius Gnanaraj Hall In-charge: Dr. M. Natarajan		
		Paper ID	Title	
		92	Enhancements and Progress in Industry 5.0: A Strategic Method for Confronting the Limitations of Industry 4.0	
		116	Identifying and Analysing Barriers to IoT Adoption in Logistics Using DEMATEL Approach	
		64	Stochastic analysis of resilient public transportation networks	
		120	Optimizing Healthcare Resilience: Advanced Machine Learning for Predicting Patient Length of Stay	
		123	Supplier Selection for Agricultural Equipment Manufacturing Industry Using Machine Learning	
	Session -III GDMM 304	Session Chair: Dr. R. Vasudevan Hall In-charge: Dr. N. Govindha Rasu		
		Paper ID	Title	
		26	Identifying and Analyzing Export Barriers in the Sea Food Industry: A DEMATEL Approach	
65		Adoption of artificial intelligence in the small-scale apparel industry in India		
69		Artificial Intelligence-Enabled Predictive Maintenance for Resilient Manufacturing: Current Trends and Challenges		
127		A green supplier selection model for computer accessories manufacturing organization under uncertain environment		
	133	A Systematic Approach for Identifying and Removing Non-Value-Added Elements in Manufacturing Industries: A Case Study Conducted at BHEL Tiruchirappalli.		
3.45 P.M.-5.30 P.M.	Session -IV	Session Chair: Dr. M. Murugan Hall In-charge: Dr. Chinmay Prasad Mohanty		



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	RAJAJI HALL	Paper ID	Title
		81	Early Prediction of Fault in Pressure Sensor Using LSTM-AE and Isolation Forest
		100	Modelling and Analysis of Parallel Gear Box Shaft Housing
		115	Analysis and Optimization of Cost and Material Consumption in Additive Manufacturing
		117	Optimization of Energy Consumption and Lead Time using Industry 4.0
		119	Optimizing Maintenance Schedules: A Resilient Frame-work for Predicting Turbofan Engine Failure Using Machine Learning
	Session -V MB 210	Session Chair : Dr. S. Denis Ashok Hall In-charge: Dr. Gunji Bala Murali	
		Paper ID	Title
		84	Efficient VLSI Implementation of Image DE noising Using Hybrid Median Filter
		85	Implementation of Block chain in the Healthcare Sector: A Review
		88	Enhancing Static Timing Analysis Efficiency for RISC-V Processors Through Optimization Techniques
		94	Arduino Uno Based Voice Output Meter For Visually Impaired Persons
		95	Palm Print Recognition Using AES Algorithm With Machine Learning
	Session -VI CDMM 304	Session Chair: Dr. A. Satheesh Hall In-charge: Dr. R. Deepak Kumar	
		Paper ID	Title



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	9	An Effective Modular Fabrication Process Of Transesterification Reactor For Biodiesel Manufacturing
	58	An Artificial Intelligence Based Portable Rain Water Harvesting Kit
	78	Exploring Bamboo as a Potential Alternative to Steel Reinforcement Bars for Reducing Environment Footprint
	83	Autonomous Vehicle Navigation Guide using RRT Algorithm
	114	Sustainable colour code texture generation for skin and hair colouring through value improvement of herbal henna
CONFERENCE DINNER [7:00 P.M. to 9:00 P.M.]		



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DAY 2 - 21.12.2023 (Thursday)

Time		Event	
09:30 A.M. – 12:30 P.M. [RAJAJI HALL]		Session Chair : Dr. G. Rajyalakshmi Hall In-charge: Dr. Rajasekhara Reddy Mutra	
09:30 A.M. – 10:15 A.M.		Keynote 4 (Rajaji Hall- Dr. MGR Block) Prof. Jose Arturo Garza-Reyes, Professor of operations management and Head of the centre for supply chain improvement, University of Derby, United Kingdom	
10:15 A.M – 11:00 A.M.		Keynote 5 (Rajaji Hall – Dr. MGR Block) Prof. Nachiappan Subramanian, Professor of Operations & Logistics Management and Supply Chains, University of Sussex Business School, United Kingdom	
11:00 A.M. – 11:15 A.M.		Tea Break	
11:30 A.M. - 12:30 P.M.	Session -VII RAJAJI HALL	Session Chair : Dr. G. Rajyalakshmi Hall In-charge: Dr. Rajasekhara Reddy Mutra Technical Sessions	
		Paper ID	Title
		38	Multi-objective optimization of single-point incremental forming
		91	Optimization of process parameters during multi-point incremental forming of AA3003 alloy sheets using grey relational analysis
		105	Modeling of BLDC Motor with Enhanced Controller Tuning: Employing Golden Eagle Optimization for Efficient Automated Manufacturing Systems
		108	Enhancing Sustainability with Solar Powered Antennas
112	Health Monitoring Using Wireless Body Area Networks		



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	Session -VIII MB 210	Session Chair : Dr. N. Arivazhagan Hall In-charge: Dr. G. Rajamurugan	
		Paper ID	Title
		123	Supplier Selection for Agricultural Equipment Manufacturing Industry Using Machine Learning
		126	Time Series Forecasting for Indian GRID Electricity Demand
		130	IoT based system for healthcare of textile machines
		135	Deep Learning for Detecting Manufacturing Defects Using Convolutional Neural Networks
		136	Optimizing Raw Milk Procurement in the Dairy Supply Chain: An Exploration of Influential Factors through MCDM Analysis
	Session -IX CDMM 304	Session Chair: Dr. Mallikarjuna Reddy D (Online) Hall In-Charge: Dr. Lalit Kumar Bansal	
		Paper ID	Title
		70	Determinants of Job Satisfaction among Workers in Manufacturing Plants: An Empirical Study
		118	Prediction and Optimization of Surface Roughness and Kerf Width in AWJM using Soft-Computing Tools
		121	Barriers Influencing in Thermal Power Plant Process : A Sustainability Perspective
		122	Modeling supply chain risks in firecrackers manufacturing firms: Implications for enhancing productivity
	138	Perishable Supply Chain Management: A Comprehensive Literature Review and Exploration of Emerging Research Themes	
Conference Lunch – C.S. Hall [01:00 P.M. – 2:00 P.M.]			
2:00 P.M. – 5:00 P.M.		Session Chair : Dr. A. Raja Annamalai	



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[RAJAJI HALL]		Hall In-charge: Dr. Sreethul Das	
2:00 P.M – 2:30 P.M.		Keynote 6 (Rajaji Hall - Dr. MGR Block) Prof. Satish Bukkapatnam Professor, Industrial & Systems Engineering, Texas A&M University, USA	
2.30 P.M. -3.00 P.M.		Keynote 7 (Rajaji Hall - Dr. MGR Block) Professor Hitesh D. Vora, Mechanical Engineering Technology and Mechatronics and Robotics, Oklahoma State University	
Tea Break (03:00 P.M. – 03:15 P.M)			
3.30 P.M. - 5.00 P.M.	Session -X RAJAJI HALL	Session Chair : Dr. A. Raja Annamalai	
		Hall In-charge: Dr. Sreethul Das	
		Technical Sessions	
		Paper Id	Title
		90	YOLO object detection method for underwater trash collecting robot: Octacleaner
		97	Sea Farer Safety Protection System In on Board Ship
	106	Evaluating The Effect of Wire EDM Process Parameters on Surface Roughness And Kerf Width of Al 7075 – SiC Composites Using Genetic Algorithm	
107	Leveraging Additive Manufacturing for Supply Chain Resilience in Small-Scale Manufacturing Units		
124	Optimization of Keyhole Plasma Arc Welding Process Using Grey-Based Taguchi Method for Dissimilar Welding of P91-SS316H		
MB 210	Session -XI	Session Chair : Dr. Manoharan R	
		Hall In charge: Dr. Keyur Joshi	
	Paper ID	Title	
86	Study of Tribological Properties of molybdenum graphite filled PTFE Composites Using Statistical tools		



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	109	An approach on building communicative channel for hand sign translation to Text and Speech model
	128	Resilient Scheduling Heuristic for Single Machine Systems to Minimize Variance of Job Completion Time
	129	Machine Learning Algorithm to Solve Dynamic Job Shop Problem to Deal with Digitalization of Manufacturing Process - A Real World Case Study

DAY 3 – 22.12.2023 [Friday]

Time	Event	
9:30 A.M. – 12:30 P.M.	Session Chair : Dr. K. Jayakrishna Hall In-charge: Dr. P. Jeyapandiarajan	
9:30 A.M. – 10:15 A.M.	Keynote 8 – Rajaji Hall [Dr. MGR Block] Dr. S. Narayanan, Vice-Chancellor, Kalasalingam Academy of Research and Education, Tamil Nadu	
10:15 A.M. – 10:45 A.M.	Keynote 9 – Rajaji Hall [Dr. MGR Block] Dr. S. Vinodh, Professor, NIT-Tiruchirappalli (Online)	
10:45 A.M. – 11:00 A.M.	Tea Break	
11:00 A.M. – 12:30 P.M. [RAJAJI HALL]	Session Chair : Dr. K. Jayakrishna Hall In-charge: Dr. P. Jeyapandiarajan	
	Paper ID	Title
	25	Evaluating the Impact of Transportation Barriers in the Chemical Industry
	57	Physics-based Prognostics: Review and Future Directions
	58	An Artificial Intelligence Based Portable Rain Water Harvesting Kit
	62	Enhancing organizational performance: Leveraging the synergy between Industry 4.0 and Lean Six Sigma to foster resilient manufacturing operations
	66	Digital Approach for Sustainable Waste Segregation
73	Optimization of Health Care System Layout to Improve Patient Experience	



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	87	Implementation of 5S Methodology in The Bike Service Shop
	93	Customized Quality Assurance Methodology Based on Design Thinking for Chronic Quality Problems
	97	Sea Farer Safety Protection System In On Board Ship
	98	The impact and restoration of supply chain sustainability across diverse industrial sectors pandemics
	99	Sustainable Design in the Era of Additive Manufacturing: A Review
12:30 P.M. – 01:00 P.M. - Valedictory (Rajaji Hall)		
Conference Lunch (01:05 P.M. to 02:00 P.M.)		

Dean (SMEC)