

Tentative Technical Schedule of UNIFIED 2024 Conference at MNIT Jaipur

26 th NOVEMBER 2024 (Tuesday)			
10.00 am - 10.30 am	Registration		
10:30 AM to 11:30 AM	Inaugural Function, Venue: Neeti Sabhagaar, MNIT Jaipur		
11:30 AM-12 PM	High tea		
12 PM- 1 PM	Key note session Prof. Uday Kumar (Lulia University, Swededn), Prof. Andrew Ball (University of Huddersfield, U.K.)		
1 PM-2 PM	Lunch		
Time	Session A Session Chair: Dr. Om Ji Shukla (Assistant Professor,NIT Patna) Track Owner: Dr. Naresh Raghuvanshi (Assistant Professor, MNIT Jaipur) UNIFIED Rep: Siddharth Singh(6263744910) Pardhuman chahar(8963859013) Venue: NKN-1	Session B Session Chair: Dr. Mangey Ram (Professor, Graphic Era, Dehradun) Track owner: Dr. Gulab Pamnani (Assistant Professor, MNIT Jaipur) UNIFIED Rep: Puspendra Upadhyay(9929334868) Rahul Sharma(9358104640) Venue: Neeti Sabhagaar	Session C Session Chair: Dr. Anup Malik (Assistant Professor, MNIT Jaipur) Track owner: Dr. Nikhil Sharma (Assistant Professor , MNIT Jaipur) UNIFIED Rep: Vishnu(9251762768) Suyesh Wankhede(9082810006) Venue: NKN-2
2:00 PM to 2:15 PM	UNIFIED_2024_02 Artificial Intelligence to Measure Idle Time of An Assembly Line Worker Divya Shrivastava	UNIFIED_2024_04 Predictive Modeling of Surface Roughness in Abrasive Machining Operation Using Machine Learning Gajesh Gopal S. Usgaonkar	UNIFIED_2024_11 Performance Evaluation of an Electric Vehicle System under Multistate Modelling Labhanshi Vashishtha
2:15 PM to 2:30 PM	UNIFIED_2024_05 Biometric based Secured Voting System for Election Ravindra Pratap Narwaria	UNIFIED_2024_08 Bearing Fault Diagnosis and Generalization Error Analysis Based on Transfer Learning Tingting Deng	UNIFIED_2024_25 An ultrasonic-based novel method for condition monitoring of lithium-ion batteries Lei Fu

2:30 PM to 2:45 PM	UNIFIED_2024_12 Reliability Analysis of Complex System using Markov Process and Neural Network Algorithm Deepanshi Chauhan	UNIFIED_2024_14 Maximizing Reliability of Hybrid Energy System: A Comparison between Mayfly and Driving Training-Based Optimization Algorithm Jaya choudhary	UNIFIED_2024_51 Electric Mobility in Urban India: Tackling Technological and Infrastructure Hurdles Abhishek Das
2:45 PM to 3:00 PM	UNIFIED_2024_33 Denial-of-Service (DOS): Adaptive Approach and Strategies Monika Rani	UNIFIED 2024_27 Brittle Fracture Analysis using Phase Field Pushpendra Upadhyay	UNIFIED_2024_53 Design, analysis and development of an efficient thermal management system for electric vehicles Parag K. Muley
3:00 PM to 3:15 PM	UNIFIED_2024_44 A Blockchain architecture for healthcare waste management practices-An Indian Case Rajeev Agrawal	UNIFIED 2024_30 A Novel Method for Damage Identification of Frame Structures using Extended Improved Particle Swarm Optimization Technique Thakur Das Goswami	UNIFIED_2024_54 Characterizing of the Electromechanical Transmissions in the FDM 3D Printing Process Enables Condition Monitoring via Multi-information Fusion Xinfeng Zou
High Tea (3.30 – 4.00 PM)			
Time	Session A Session Chair: Dr. Surya Prakash (Associate Professor, Great Lakes Institute of Management Gurgaon) Track Owner: Dr. Naresh Raghuvanshi (Assistant Professor, MNIT Jaipur) UNIFIED Rep: Siddharth Singh(6263744910) Pardhuman chahar(8963859013) Venue: Neeti Sabhagaar	Session B Session Chair: Prof. Pawan Kankar (Professor) Track owner: Dr. Gulab Pamnani (Assistant Professor, MNIT Jaipur) UNIFIED Rep: Puspendra Upadhyay(9929334868) Rahul Sharma(9358104640) Venue: NKN2	Session C (ONLINE Mode) Session Chair: Dr. Neeraj Goyal (Assistant Professor, MNIT Jaipur) Track owner: Dr. Nikhil Sharma (Assistant Professor, MNIT Jaipur) UNIFIED Rep: Vishnu(9251762768) Suyesh Wankhede(9082810006) Venue: NKN 1
4:00 PM to 4:15 PM	UNIFIED_2024_50 Machine Learning Based Anomaly Detection for Pneumatic Actuators driven Flexible Manufacturing System Hansika Gupta	UNIFIED_2024_59 Multi-Fault Classification of Rotor Systems Based on Torsional Energy Trajectory Characteristic Pattern Chunrong Hua	UNIFIED_2024_13 Integrating poly-Coherent Composite Spectrum of Measured Vibration Responses and Machine Learning for Fault Detection in Rotating Machinery Khalid M Almutairi

4:15 PM to 4:30 PM	UNIFIED_2024_55 Bearing Defects Classification using Wavelet Time Scattering Features and ensemble techniques Nitin Upadhyay	UNIFIED_2024_61 LM-BP Neural Network Model of Hydraulic Shock Absorbers in Varying Temperature Environment Chunrong Hua	UNIFIED_2024_18 The Importance of the Correct Use and Management of Aerial Means of Rotary Wing in Forest Fires Jorge Rafael Raposo
4:30 PM to 4:45 PM	UNIFIED_2024_64 Detecting Additive Manufacturing Anomalies with a Shallow Residual Convolution Network Suveg V Iyer	UNIFIED_2024_67 Fatigue Damage Assessment of FOWT Mooring Lines Using Sequence-to-Sequence Based Indirect Sensing Rohit Kumar	UNIFIED_2024_37 Enhancing Marine Maintenance Operations: The Impact of Human Factors and Customized Training Needs Nilesh Soni
4:45 PM to 5:00 PM	UNIFIED_2024_88 Enhanced Gear Fault Diagnosis Using Optimized Spectrogram-Based CNNs for Multiple and Compound Fault Detection Priyom Goswami	UNIFIED_2024_68 Temporal Feature Extraction Based Real Time Damage Detection of Floating Offshore Wind Turbine Mooring Lines Ananay Thakur	UNIFIED_2024_38 Enhancing Safety and Risk Management in the Oil and Gas Industry: Lessons from Major Catastrophic Incidents Nilesh Soni
5:00 PM to 5:15 PM	UNIFIED_2024_83 Probabilistic assessment on natural frequencies of functionally graded plates using artificial neural network approach Dr. Ravi Ranjan Kumar	UNIFIED_2024_106 Integrating 4D Security Framework in Cyber-Physical Systems for Smart Enterprise Data Management Vijay Prakash Sharma	UNIFIED_2024_40 Evolution of Safety Systems and the Increased Potential for Hidden Failures: Case Studies from Automotive and Aviation Industries LAR ENGLISH

27 th NOVEMBER 2024 (Wednesday)			
10.00AM – 11 AM (Key note: Mr. Venkataramana Runkana (Tata Consultancy Services) and Prof. Rakesh Mishra(University of Huddersfield, U.K.)			
High tea(11.00AM – 11:30AM)			
Time	Session A2 Session Chair: Dr. Sameer Mittal Track Owner: Dr. Naresh Raghuvanshi (Assistant Professor, MNIT Jaipur) UNIFIED Rep: Siddharth Singh(6263744910) Pardhuman chahar(8963859013) Venue: NKN-1	Session B2 Session Chair: Dr. Deepak Verma (Associate Professor MNIT Jaipur) Track owner: Dr. Gulab Pamnani (Assistant Professor, MNIT Jaipur) UNIFIED Rep: Puspendra Upadhyay(9929334868) Rahul Sharma(9358104640) Venue: Neeti Sabhagaar	Session C2 Session Chair: Prof. Harlal Singh Mali (Professor, MNIT Jaipur) Track owner: Dr. Nikhil Sharma (Assistant Professor, MNIT Jaipur) UNIFIED Rep: Vishnu(9251762768) Suyesh Wankhede(9082810006) Venue: NKN-2
11:30 AM to 11:45 AM	UNIFIED_2024_42 Industry 4.0 and Supply Chain Resilience: A Comprehensive Analysis of Technological Impacts Devesh Kumar	UNIFIED_2024_81 Understanding the Role of Cyber Physical Technology in Supporting Supply Chain Flexibility: A Systematic Literature Review Angel Singh	UNIFIED_2024_65 Vehicle Wheel Monitoring and Diagnosis Based on the Vibration Signals of an On-Rotor Sensor Kunzuo Zhong
11:45 AM to 12:00 PM	UNIFIED_2024_47 A Framework Proposal for the Assets Ranking Based on their Criticality in Industry Mohamad Afiq Amiruddin Bin Parnon	UNIFIED_2024_96 Digital Governance RFP Analysis: BERT Model adoption for Document Classification Manisha Tiwari	UNIFIED_2024_52 Condition Monitoring- An Emerging Predictive Maintenance Technique in Continuous Process Plants Parag K. Muley
12:00 PM to 12:15 PM	UNIFIED_2024_57 Financial Barriers to Electronic Commerce Adoption in SMEs Kartik Pareek	UNIFIED_2024_82 A Conceptual Framework to Evaluate Customers' Response to Use Product Recommendation Systems Aman Mathan	UNIFIED_2024_19 The Role of Lifestyle in Enhancing Employee Health and Productivity G Balakrishna Reddy
12:15 PM to 12:30 PM	UNIFIED_2024_73 Applications of learning curves in maintenance industry 4.0: A comprehensive review Prakash Naraian Sharma	UNIFIED_2024_111 The integration of Artificial Intelligence in the context of Industry 4.0. Aleksey Tashkinov	UNIFIED_2024_23 Identifying key methodologies for modelling Interdependencies in Dependent Networks Paras Grag

12:30 PM to 12:45 PM	UNIFIED_2024_75 Potential of Artificial intelligence in Millets supply chain risk management Hemant Kumar	UNIFIED_2024_132 Pathway to Net-Zero Emissions in Supply Chain: A comprehensive analysis of Industry 4.0 Technologies and Emission Reduction Practices Shobha Rathore	UNIFIED 2024_21 A Novel Approach for Assessment of Risk Matrix of Offset Printing Machine ARUN KIRAN PAL
1:30 PM to 2:30 PM	Lunch		
OFFLINE SESSIONS			Session C3 (Online)
Time	Session A3 Session Chair: Dr. Satish Sharma Track Owner: Dr. Naresh Raghuvanshi (Assistant Professor, MNIT Jaipur) UNIFIED Rep: Siddharth Singh(6263744910) Pardhuman chahar(8963859013) Venue: NKN-2	Session B3 Session Chair: Prof. Ramin Karim, (Lulea university of Technology, Sweden) Track owner: Dr. Gulab Pamnani (Assistant Professor, MNIT Jaipur) UNIFIED Rep: Puspendra Upadhyay(9929334868) Rahul Sharma(9358104640) Venue: Neeti Sabhagaar	Session Chair: Dr. Kuldeep Singh (Associate Professor,MNIT Jaipur) Track owner: Dr. Nikhil Sharma (Assistant Professor, MNIT Jaipur) UNIFIED Rep: Vishnu(9251762768) Suyesh Wankhede(9082810006) Venue: NKN-1
2:30 PM to 2:45 PM	UNIFIED_2024_28 Analysis of Reactor Pressure Vessel during Pressurized Thermal Shock Dinesh Loyol	UNIFIED_2024_6 Enhancing Network Security: An Ensemble of Machine Learning Model for Detection of Distributed Denial of Service Attack Deepak Singh Rajput	UNIFIED_2024_48 Optimisation of Distance between Sensor Locations in a Long Pipe Network for Condition Monitoring using Acoustic Wave Reflection Technique Buloere F Ekeu-wei
2:45 PM to 3:00 PM	UNIFIED_2024_36 Electric Radiators and Heat Decarbonisation: An Experimental Study on Energy Efficiency Ruhail Gulzar	UNIFIED_2024_34 Internet of Things (IOT) Security: Threats, Vulnerabilities, and Risk Mitigation Strategies Monika Rani	UNIFIED_2024_56 A Comparative Study between Bayesian Filters and Autoencoder Networks for Bearing RUL Prediction Haobin Wen

3:00 PM to 3:15 PM	UNIFIED_2024_49 Research on dynamic characteristics of direct-drive wind turbine main bearing based on digital twin Wentao Zhao	UNIFIED_2024_N_101 Gearbox Prognostics and Health Assessment Using ProgPy: An Open-Source Condition Monitoring and Diagnostics Tool Magnus Santos Nordeide	UNIFIED_2024_63 Inverter Based Resource Complemented Control using Immune Response Analogy Isaac K Aidoo
3:15 PM to 3:30 PM	UNIFIED_2024_66 Speed Tracking and Dynamic Analysis of Condition Monitoring of Industrial Collaborative Robot Based on Vibration Signal Huanqing Han	UNIFIED_2024_95 Use of GPU and Parallel Processing for Insurance Pricing Models Vikas Garg	UNIFIED 2024_69 An Energy management strategy for Piezoelectric Energy Harvester for low-power applications Anshu Gaur
3:30 PM to 3:45 PM	UNIFIED_2024_94 Oil Consumption Analysis and Predictive Modeling for Vehicle Longevity Vikas Garg	UNIFIED_2024_N_102 Proposed Framework for Nonintrusive Monitoring Solution for Independent Elderly Halldor Broddi Thorsteinsson	UNIFIED_2024_86 Damage identification of steel box girder based on impact load and Wavelet Packet Permutation Entropy Yutao Zhou
High Tea(4.00 PM – 4:30 PM)			
Time	Session A4 Session Chair: Dr. Satyander Singh Chauhan (Assistant Professor, MNIT jaipur) Track Owner: Dr. Naresh Raghuvanshi (Assistant Professor, MNIT Jaipur) UNIFIED Rep: Siddharth Singh(6263744910) Pardhuman chahar(8963859013) Venue: NKN-1	Session B4 Session Chair: Dr. Divesh Kumar (Associate Professor, MNIT Jaipur) Track owner: Dr. Gulab Pamnani (Assistant Professor, MNIT Jaipur) UNIFIED Rep: Puspendra Upadhyay(9929334868) Rahul Sharma(9358104640) Venue: NKN-2	Session C4 Session Chair: Dr. Ashish Tripathy (Assistant Professor, MNIT Jaipur) Track owner: Dr. Nikhil Sharma (Assistant Professor, MNIT Jaipur) UNIFIED Rep: Vishnu(9251762768) Suyesh Wankhede(9082810006) Venue: Neeti Sabhaagar
4:30 PM to 4:45 PM	UNIFIED_2024_87 Gearbox Anomaly Detection In Wind Turbines Using Classical Machine Learning Arvind Keprate	UNIFIED_2024_N_103 Prediction of Power Produced in a Wind Turbine Using SCADA Data with Deep LSTMs Even Torbjørnsen	UNIFIED_2024_124 Mars Rover: Autonomous Exploration and Terrain Analysis Soma Sekhar Bhimanapalli

4:45 PM to 5:00 PM	UNIFIED_2024_90 ORS-based Bearing Fault Diagnosis for Marine Electric Propulsion Systems Chun Li	UNIFIED_2024_N_104 Development of Human Cognition Inspired Digital Twins for Optimized Performance of Process Equipment Maneesh Singh	UNIFIED_2024_125 Enhancing Phishing Detection Sandeep Malipeddi
5:00 PM to 5:15 PM	UNIFIED_2024_112 Combined Effect of Charge Rate and Temperature on Battery Health of Electric Vehicles Namrata Mohanty	UNIFIED_2024_115 Integrating Blockchain Technology with AI to Enhance Security Measures Tirthesh Kamlesh Gajjar	UNIFIED_2024_97 A Parametric Approach Towards Vibration Level Prediction for a Fighter Aircraft Line Replaceable Units Santha J Panigrahi
5:15 PM to 5:30 PM	UNIFIED_2024_113 Bi-LSTM-Based Model for Software Reliability Prediction in Multi-Sprint Agile based Software Shikha Dwivedi	UNIFIED_2024_N_105 Application of a Large Language Model for Failure Mode and Effect Analysis (FMEA) Kamal V. Charan	UNIFIED_2024_62 Multi-Model Based Condition Monitoring Framework for the Health Assessment of the Tool Center Point and Joints of Industrial Collaborative Robots Samuel Ayankoso
5:30 PM to 5:45 PM	UNIFIED_2024_114 A temporal decomposition-based LSTM model for forecasting reservoir inflow using real-time data Kshitij Tandon	UNIFIED_2024_119 Gamified learning platform Development Rutuja Niminath Rite	UNIFIED_2024_35 Emergency vehicles (ambulances) The importance of Condition maintenance in the Service Quality Hugo DN Raposo
	UNIFIED_2024_136 Trust in Social Media through Deepfake Detection: A Literature Review Debasmita Guha	UNIFIED_2024_129 The Role of Artificial Intelligence in Sustainable Food Retailing: A Pathway to Reducing Waste and Enhancing Efficiency Şirin Gizem Köse	
6:00 PM to 6:30 PM	High Tea(6:00 PM to 6:30 PM)		

7.30 PM-10.00 PM	Dinner (In Prabha bhawan quadrangle)		
10- 11 AM Keynote (Prof. Alok Verma, Texas A&M University and Prof. Faisal Khan, Texas A&M University)			
11-11.15 AM	High tea		
Time	<p>Session A2 Session Chair: Dr. Sumit Sonkar (Associate Professor, MNIT Jaipur) Track Owner: Dr. Naresh Raghuvanshi (Assistant Professor, MNIT Jaipur)</p> <p>UNIFIED Rep: Siddharth Singh(6263744910) Pardhuman chahar(8963859013)</p> <p>Venue: NKN-2</p>	<p>Session B2 Session Chair: Dr. Priyanka Harjule (Assistant Professor, MNIT Jaipur) Track owner: Dr. Gulab Pamnani (Assistant Professor, MNIT Jaipur)</p> <p>UNIFIED Rep: Puspendra Upadhyay(9929334868) Rahul Sharma(9358104640)</p> <p>Venue: Neeti Sabhagaar</p>	<p>Session C2 (Online) Session Chair: Prof. Arvind Keprate (Professor , Oslo Metropolitan University) Track owner: Dr. Nikhil Sharma (Assistant Professor, MNIT Jaipur)</p> <p>UNIFIED Rep: Vishnu(9251762768) Suyesh Wankhede(9082810006) Venue: NKN 1</p>
11:15 AM to 11:30 AM	<p>UNIFIED_2024_100</p> <p>Condition Monitoring of Hydraulic Systems Using Multi-Output Classification Convolutional Neural Networks</p> <p>Pavan Kumar Kankar</p>	<p>UNIFIED_2024_26</p> <p>Life Cycle Investment and Sustainable Asset Management: Exploring the Potential of ISO 55001 in the Circular Economy</p> <p>Jose Edmundo de-Almeida-e-Pais</p>	<p>UNIFIED_2024_7</p> <p>Short-term Photovoltaic Power Prediction Based on Simi-lar Day Clustering and Combined SBOA-CNN-BiLSTM-Attention Model</p> <p>Li Youwei</p>
11:30 AM to 11:45 AM	<p>UNIFIED_2024_70</p> <p>A Framework for Development of Industrial Metaverse in Maintenance</p> <p>RAVDEEP KOUR</p>	<p>UNIFIED_2024_32</p> <p>Statistical Modelling and Analytics of Shutdown in Waterflood System on a Deep-water Production Platform Offshore Nigeria</p> <p>Akorede O. Joledo</p>	<p>UNIFIED_2024_17</p> <p>Research on Wind Turbine Pitch Control Based on Whale Optimization Algorithm</p> <p>Jun Xia</p>
11:45 AM to	<p>UNIFIED_2024_72</p> <p>An Improved Framework to Transition from TBM to CBM in the Maintenance of Freight Locomotives</p>	<p>UNIFIED 2024_71</p> <p>Inter-organizational and multi-objective operational risk management: a case study of</p>	<p>UNIFIED 2024_20</p> <p>Research on permanent magnet synchronous motor</p>

12:00 PM	Mohamed MAA Ali Alaswed	well control management for land drilling operation in Iraq Tore Markeset	control based on improved active disturbance rejection control Chuang Zhou
12:12.15 AM to 12:30 PM	UNIFIED_2024_84 Wind Farm Optimization Along the Norwegian Coast: Comparing Multi-Rotor and Single-Rotor Turbines Johannes Aarstein	UNIFIED_2024_80 Sequential hybrid solution to alleviate congestion utilizing distributed generations and FACTS devices in the power network Pawan Sharma	UNIFIED 2024_22 A Whale Optimization Algorithm Based Strategy to Govern DC Bias Lulu Liu
12:00 PM to 12:15 PM	UNIFIED_2024_85 Design and Analysis of Upper Limb Exoskeleton for Adults with Muscular Dystrophy Sooraj Sukumar K	UNIFIED 2024_98 Application of Condition-Based Monitoring for Improvement of Diagnostic Coverage of Safety Mechanisms Pramit Nag	UNIFIED_2024_24 Optimal location selection based on Grey Wolf coupled Cuckoo algorithm Yuan Miao
12:15 PM to 12:30 PM	UNIFIED_2024_92 Vibration Trend Monitoring of Indigenous Wankel Rotary Engine Brijesh kumar, J Shah	UNIFIED 2024_99 Predictive Maintenance of Hydraulic systems using multi-task Transfer learning with multi-layer perceptron Pavan Kumar Kankar	UNIFIED_2024_29 A rolling bearing fault diagnosis based on IBKA optimized VMD-SVM Zhenna Ma
12:30 AM to 12:45 PM	UNIFIED_2024_39 Modern Approaches to tackle Intelligent Urban Transportation challenges Hitesh Chandiramani	UNIFIED_2024_76 Improvement of FMECA Framework: A Case Study Anindya Bhattacharya	UNIFIED_2024_31 Optimization design of active suspension system control of rover based on Gray Wolf algorithm Kai Wang
12:45 AM to	UNIFIED_2024_74	UNIFIED_2024_134	

1:00 PM	A Review on Cable-Driven Soft Robotic Systems used for Surgical Applications Chetan Jalendra	A Review on Cable-Driven Soft Robotic Systems used for Surgical Applications Sameer Shekh	UNIFIED_2024_41 Research on adding fuzzy stage to permanent magnet motor based on synovial control Yuanzhen Wei
1:00 PM to 2:00 PM	Valedictory Session		
02:00 PM to 03:00 PM	Lunch		