

**PROGRAM SCHEDULE FOR INTERNATIONAL CONFERENCE ON ADVANCEMENT IN MATERIALS,
MANUFACTURING AND ENERGY ENGINEERING, 2021
MANIT, BHOPAL**

DAY 1 (18 FEBRUARY, 2021)

TIMING: 2:00PM – 5:00PM

Keynote Speaker

Dr. Geoffrey Mitchell, Vice-Director CDRSP - Centre for Rapid and Sustainable Product Development Polytechnic Institute of Leiria, Portugal

Session-1		Session-2	
Session Joining Link:		Session Joining Link:	
Session Coordinator: Dr. Ramesh Kumar Nayak		Session Coordinator: Dr. Tikendra Nath Verma	
Session Chair: Dr. Mohammad Taufik, Dr. Sudhanshu Kumar		Session Chair: Dr. Ali Abbas, Dr. Sandeep Suresh Rao Ahankari	
Paper Id.	Title	Paper Id.	Title
MATPR-D-21-00025R1	ANALYSIS ON AIR CRAFT WINGLET AT DIFFERENT ANGLES BY USING CFD SIMULATION	91	Influence of Calcination on the Chemical Precipitation and Filtration of Lanthanum hexaaluminate Powders
MATPR-D-21-00238R1	Electrical Properties of 0.7Na0.5Bi0.5TiO3-0.2SrTiO3-0.1BaTiO3 Lead Free Ceramics: An Off-Morphotropic Phase Boundary Composition	121	Effects of additives and treatment on fly ash based polymer composites
MATPR-D-21-00239R1	Experimental investigations to find the effect of post weld heat treatment (PWHT) on the microstructure and mechanical properties of FSW dissimilar joints of AA2024-T351 and AA7075-T651	87	FEA Investigation of Repaired Composite under Low Velocity Impact
MATPR-D-21-00300R1	Optimal Sizing and Assessment of a Hybrid Energy Based AC Microgrid.	122	Powder Mixed Electrical Discharge Machining of EN 31 Steel
MATPR-D-21-00301R1	Metallurgical evaluation of halloysite-epoxy composite processed by ultrasonication	54	Biosensor Based on One-Dimensional Photonic Crystal for Poliovirus Detection
MATPR-D-21-00302R1	A Numerical Study on the Performance Predictability of Low Head Francis Turbine with Different Turbulence Models	23	Study on Design and Performance Specifications of the Prosthetic Hands
MATPR-D-21-00449R1	Evaluation of thrust force and delamination in CFRP drilling by using active spring restoring backup force	52	Environmental modelling of a residential park in urban environment
MATPR-D-21-00453R1	Inertial Relief Technique based Analysis of the Three-wheeler E-Vehicle Chassis	129	Review of Composite and Natural material for the Application of vibration and Noise Control
MATPR-D-21-00457R1	Experimental investigation of electro-chemical magnetic abrasive finishing of SS 304 workpiece	36	Removing Error and Estimating an Accurate Finite Element Model of Graphite Epoxy Composite Laminate Structure using Direct Updating Method
MATPR-D-21-00460R1	Characterization of recycled aggregate by the combined method: Acid soaking and mechanical grinding technique	80	A review on tribo-mechanical behaviors and corrosion performance of AA8000 based composites
MATPR-D-21-00596R1	Design and Fabrication of Cyclone Dust Collector for Industrial Application	81	Plasma Processing of Carbon Dioxide

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DAY 2 (19 FEBRUARY, 2021)

TIMING: 10:00AM - 1:00PM

Keynote Speaker

Dr. Ali Zare, Faculty of Sci Eng & Built Env, Deakin University, Australia

Session-3		Session-4	
Session Joining Link:		Session Joining Link:	
Session Coordinator: Dr. Tikendra Nath Verma		Session Coordinator: Dr. Gaurav Dwivedi	
Session Chair: Dr. Siddharth Jain, Dr. Arun K Behura		Session Chair: Dr. Anuj Kumar, Dr. Anoop K Shukla	
Paper Id.	Title	Paper Id.	Title
5	Computational Investigation of Chatter for Face Mill Tool on VMC using Different Shim Material with Experimental Validation	24	A multi-stage evolutionary tomographic reconstruction algorithm using ultrasound time-of-flight projections
6	Multi Spectral Imaging for Identification of Water Stress and Chlorophyll Content in Paddy Field using Vegetation Indices	25	Recent Trends on Furnace Design and Stirrer Blade Geometry used in Stir Caster: A Focused Review
9	Condition Monitoring of Used Engine Oil by FTIR Spectroscopy A Review	28	A Review on Mechanical Behavior of Stir Cast Al-MMCs with Particulate Reinforcements
12	Algae Biofuel as a Substitute for Compression Ignition Engine: A Review	31	Liquid Phase Exfoliation of 2D-MoS ₂ nanostructures at varying sonication times and their subsequent analysis
14	Economic growth in Maharashtra and India with particular reference to energy consumption	34	A Comprehensive Review of Hybrid Liquid Desiccant Air Conditioning Systems (LDAS) Integrated with Vapor Compression Refrigeration System
15	Analysis of Centrifugal Pump Impeller Guide Vane by using CFD Technique with Different Materials	38	Human Powered Flywheel Motor (HPFM) A review
16	Study of Kinematic Chains of Group IV-D, E and F : Part-Distinct Mechanisms	41	Finite Element Analysis Based Geometry Optimization of a Disk Brake
17	Modeling and prediction of thermal conductivity ratio of metal-oxide based nano-fluids using Artificial Neural Network and Power law	42	Modeling and Simulation of Electrical Discharge Machining- A Review
19	ANALYSIS THE EFFECT OF AGE AND HEIGHT ON MORPHOLOGICAL, CHEMICAL, AND PHYSICAL PROPERTIES OF YUSHANIA ALPINA BAMBOO IN ETHIOPIA	43	Structural, optical and magnetic properties of Cobalt Ferrite nanomaterials, synthesized by green technological approach using Lemon Juice
21	Numerical Heat Transfer Analysis of a Rectangular Microchannel Heat Sink with graphene based nanofluids	44	Automation in Inventory Management in MSME (micro, small, medium enterprises) warehouse by use of robots.
22	A Survey of Hydro Turbines Installed For Small Hydro Power Plants in India	51	Kitchen Waste Utilization Using Biogas Plant – Need of the Hour
99	Revivification of spent lubricating oil by ecofriendly extraction-flocculation method	84	Automated Real-Time Transformer Health Monitoring System using the Internet of Things (IoT)

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DAY 2 (19 FEBRUARY, 2021)

TIMING: 2:00PM – 5:00PM

Keynote Speaker

Prof. Bankim Chandra Ray, Professor, Advisor to TATA Steel (New Materials Business), NIT Rourkela, India

Session-5		Session-6	
Session Joining Link:		Session Joining Link:	
Session Coordinator: Dr Gaurav Dwivedi		Session Coordinator: Dr. Ramesh Kumar Nayak	
Session Chair: Dr. Anurag Chauhan, Dr. Sunanda Sinha		Session Chair: Dr. Sumit k Dhawane, Dr. Shashi Bahl	
Paper Id.	Title	Paper Id.	Title
57	Microstructure and interfacial characterization near grain boundary of Al ₂ O ₃ / SiC reinforced AA 6061 semisolid squeeze cast composite	MATPR-D-21-00687R1	Utilization of Waste Transformer Oil as a Fuel in Diesel Engine
60	A Comprehensive Study on Electrical and Electronic Waste Management	MATPR-D-21-00689R1	Performance Investigation of Twisted Blade Inline Savonius Turbine at Variable Load Condition using Numerical Method
63	Investigating the effect of annealing temperature on structural, Luminescent and magnetic properties of Nickel and Zinc Aluminate nanomaterials, prepared by Sol-gel method.	MATPR-D-21-00776R1	Investigation on synthesis, structure and degradability of starch based bioplastics
66	Review of Battery Technologies Available for Promoting Electric Mobility in Urban India	MATPR-D-21-00813R1	Analysis of effective stresses for titanium alloys in continuous forming process
67	Application of Combined Compromise Solution Method for Material Selection	MATPR-D-21-00870R2	Public Policies to Promote Renewable Energy Technologies Learning from Indian Experiences
71	Analysis of performance and emission parameters in DI diesel engine by using biodiesel blended with additives	MATPR-D-21-01099R1	A review on the feasibility and application of Geospatial technique in Engineering Field
74	Femur Bone Implant Plate Design Analysis Under Varying Fracture Conditions	MATPR-D-21-01103R1	Big Data applications to take up major challenges across manufacturing industries: A brief review
75	CFD Analysis of Heat Transfer within Finned Flat with Perforations	MATPR-D-21-01141R1	Modelling of Desiccant Wheels using Radial Basis Neural Networks
76	Performance Analysis of Optimal Designed Photovoltaic/Diesel Generator Based Hybrid Energy System Coupled to Utility Grid	MATPR-D-21-01185R1	A Compact Luna Shaped High Gain UWB Antenna in 3.1GHz to 10.6GHz Using FR4 Material Substrate
78	Effective control of response of a reinforced concrete building under seismic loads using tuned liquid damper	MATPR-D-21-01245R1	Development of Graphics User Interface (GUI) for Process Planning in Extrusion Based Additive Manufacturing
94	Preliminary Design and Flow Analysis of Domestic Chimney for Water Boiling using Finite Element Analysis		
98	Design and Analysis of Factors Affecting Technical Business Incubation in India		

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DAY 3 (20 FEBRUARY, 2021)			
TIMING: 10:00AM - 1:00PM			
<u>Keynote Speaker</u>			
Dr. Puneet Verma, Air Quality Scientist, Trinity Consultants, Australia			
Session-7		Session-8	
Session Joining Link:		Session Joining Link:	
Session Coordinator: Dr. Gaurav Dwivedi		Session Coordinator: Dr. Tikendra Nath Verma	
Session Chair: Dr. Meeta Sharma, Dr. Abhishek Mishra		Session Chair: Dr. Sabindra Kachhap, Dr. Tushar Chowdhury	
Paper Id.	Title	Paper Id.	Title
109	Identification of lubricant contamination in Journal bearings using vibration signature analysis	130	Digital management systems in manufacturing using Industry 5.0 technologies
110	Mechanical alloying of γ TiAl based alloy powder of Ti-46Al-1B (at%) Composition	104	Virtual plan of the Domestic enlistment warming frame-work to reproduce Electromagnetic boundaries
111	A Review on Development and Applications of Solar Dish Stirling System	105	Assessment of Urban Air Quality for Jodhpur city by the Air Quality Index (AQI) and Exceedance Factor (EF)
113	Physical properties of Amorphous Nano silica materials from Rice husk (Agriculture waste) and its PVA composite, prepared using green approach for its applications	107	Investigation of rare earth elements inclusion on structural and magnetic properties of barium ferrites
115	Antibacterial property of Biologically - synthesized Iron Nanoparticles against Staphylococcus aureus	108	Computational Fluid Dynamic analysis of Cyclone separator for flue gases cleaning by using standard k-epsilon Model
116	Fabrication of composite phase change material: A critical review	141	Investigating the change in water characteristics and scale formation under the varying turbulent flow
117	Assessment of Air Quality for Jaipur City during COVID-19 Lockdown	142	An experimental comparative study on Post-harvest loss reduction with solar dryer
118	Miceller Potentiometric determination of Stability Constant and Antibacterial Investigations on Complexes of Cu (II) With 3, 4, 5-Trimethoxybenzaldehyde Thiosemicarbazone	143	Energetic and Exergetic comparison of opaque and semi-transparent PVT arrays under natural convection mode for building integration
120	Aging of a thermoplastic polymer under the combined effect of ultraviolet ray and temperature	47	A review of the mechanical properties and erosion behaviour of HVOF sprayed nanocomposite coatings
125	Simulation and Analysis of Hybrid Energy Resources in Chennai Using Homer Software	101	Effect of sintering temperature on the microstructure and properties of the Copper synthesized by powder metallurgy route
128	Improving the performance of Supply Chain through Industry 4.0 technologies	10	Next Generation Electrochemical Energy Conversion and Storage based on Three-Dimensional Nanostructures with Improved performance: Insights and Perspectives
102	Assessment of the Chambal River at Kota Metropolis through the Drinking Water Quality Index and Irrigation Water Quality Index	74	Femur Bone Implant Plate Design Analysis Under Varying Fracture Conditions
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TIMING: 10:00AM - 1:00PM

Keynote Speaker

Dr. Olusegun D. Samuel

Lecturer & Post-Graduate Project Co-ordinator- Mechanical Engineering Department, Federal University of Petroleum Resource, Nigeria

Session-9

Session Joining Link:

Session Coordinator: Dr. Ramesh Kumar Nayak

Session Chair: Dr. Nitin Manadavgade, Dr. S Das

Paper Id.	Title
MATPR-D-21-00237	Effect of Various Heat Treatment Processes on Microstructural Evolution and Properties of Cast Austenitic Stainless Steel of ASTM A351 Grade CF8C
MATPR-D-21-00536	Failure analysis of austenitic stainless steel implant screws and prospection of chemical composition using artificial intelligence
MATPR-D-21-00567	Investigation of opto-electronic properties and morphological characterization of magnesium niobate ceramics synthesized by two-stage process.
MATPR-D-21-00967	Electricity Generation by Microbial Fuel Cell Using different substrates: A Review
MATPR-D-21-01051	Critical assessment on application of software for designing hybrid energy systems
MATPR-D-21-01266	Elucidating enhanced biodegradability of starch blended polyolefinic sheet by physicochemical and thermal property assessment
MATPR-D-21-01334	Optimization of Solar Integrated Electrolyser System for Hydrogen Production Using Taguchi Method
MATPR-D-21-01707	Static and Dynamic Analysis of Riveted joint considering different Materials
MATPR-D-21-01708	Design Of A Five-Bar Linkage For An Automated Power Window
MATPR-D-21-01282R1	Modeling for Liquid Plug Oscillation Frequency and Amplitude of Pulsating Heat Pipe

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