

Day 1, Saturday, 22nd January 2022

Technical Session	Date & Time	Paper Id	Title	Author(s)	Session Link (MS Teams Link)
1	Saturday, 22nd January 2022 (12:00-13:00)	ME-262	Nonlinear frequency response of sandwich beam with frequency-dependent viscoelastic core using reduced-order finite element method	Rajidi Shashidhar Reddy, Abhay Gupta, Satyajit Panda	Click here
		ME-251	Control of Jeffcott Rotor vibrations using Model Predictive Control	Abhinav Singh, Aashish R, Ashesh Saha	
		ME-240	On the Chaotic Behavior of Coupled Friction-Induced Oscillators Subjected to Base-Excitation	Jithin Velayudhan, M. D. Narayanan and Ashesh Saha	
			Experimental Analysis of a Heat Sink for Electronic Chipset Cooling using a Nano Improved PCM (NIPCM)	Manoj Kumar P	
2	Saturday, 22nd January 2022 (12:00-13:00)	ME-200	A finite element study on the effect of bulk material on the auxetic behavior of additively manufactured three-dimensional reentrant honeycomb	Aravind Rajan Ayagara, Chaitanya Vanay Varama, Rohan Gooty	Click here
		ME-213	Finite element analysis of high-density polyethylene (HDPE) nanocomposite for potential use as dental implant	Mayank Dey , Rahul Vamsi Katabathuni, Nitesh Dhar Badgayan and Santosh Kumar Sahu	
			Thermal Barrier Coatings: Review	S.T. Vagge, Suraj Ghogare	
			Design and analysis of car brake rotor and brake caliper for efficient braking	J. Karthik, Manas Kumar Pal	
3	Saturday, 22nd January 2022 (12:00-13:00)	ME-275	Friction stir welding of IS:65032 aluminum alloy and predicting tensile strength using Ensemble Learning	Kaveti Upender, B.V.R. Ravi Kumar, M.S. Srinivasa Rao, and M. Venkata Ramana	Click here
		ME-235	Influence of PWHT on microstructure and mechanical properties of similar TRIP-TRIP and dissimilar DP-TRIP laser welds for automobile applications	C. Gopi Krishna, T. Mahesh Kumar, N. Kishore Babu, P. Phani Prabhakar, G .V. Sarath Kumar	
		ME-234	Mechanical Properties Improvement of Ultrafine-Grained Al alloys Sheets by Cryorolling: A Review	Basim Tayeb Nashri, Muhammad Farzik Ijaz, Faraz Hussain Hashmi	
		ME-214	Study and Investigation of Tribological Functions of Nano Additive With SAE 40/W20 Oil on EN 19	R.Ruban, A.Vinothkumar, Mohit H , Arpitha G R	
4	Saturday, 22nd January 2022 (15:00-17:00)	ME-274	Influence of gyroscopic effect and rotary inertia on the vibrations of a continuous rotor system	Amit Malgol, Ashesh Saha	Click here
			Effect of Impact Angles on the Frontal Structure of a Vehicle	Rudolf Ragis, Akshaykumar Khatane, Kesav Chandran and Baskar P	
			An experimental investigation on characteristics of a diesel engine with Pine oil blends and by adding Decanol as an additive	K.Madhu babu, B.Prasanth Kumar, R.Nagendra babu	
		ME-233	A review on advances in friction welding of dissimilar metals	Deepansh Gill and MK Pradhan	
		ME-243	Multi objective optimization using Artificial neural networks in the cutting parameters of machining of heat treated Be-Cu alloy	Manda Sreeja, Dr. K. Devaki Devi, Dr. M. Naga Phani Shastry	
		ME-224	Neural Network (NN) Based Qualitative Assessment of Bone Growth over Textured Implant Surfaces	Rajdeep Ghosh, Souptick Chanda and Debabrata Chakraborty	
		ME-257	Path-planning of robot end-effector for hairline crack sealing using Intelligent Techniques	Santosh Kumar, Sandeep Reddy Basireddy	

		ME-365	Conceptual Design and Development of Automated Waste Segregator	Vishwas Mahesh, Manoj D Yadav, Sinchana T C, Subhash SR, Sushmitha S	
5	Saturday, 22nd January 2022 (15:00-17:00)	ME-284	Visual product assessment by using the eye-tracking equipment to study the effect of product shapes on consumer's thinking	Jitender Singh and Prabir Sarkar	Click here
		ME-232	Process simulation of Electrical Discharge Machining: A review	Diksha Jaurker, Mohan Kumar Pradhan	
		ME-245	Comparative Energy Analysis of R1234yf, R1234ze, R717 and R600a in Vapour Compression Refrigeration system as replacement of R134a	Shubham Soni, Punit Mishra, Govind Maheshwari and Devendra S.Verma	
		ME - 207	Hybrid Auxetic Materials Implemented in Crates & Non-Pneumatic Wheels for Shock Absorption	Ankan Narayan Biswasa , Nunna Mahesha , Peri Shanmukha Rama , R. Bharath Krishnana , P S Rama Sreekanth	
		ME-369	Effect of Cryogenic Treated Tool Electrode during Electric Discharge Drilling (EDD) of Inconel 800	Kushal Pal Singh and Shankar Singh	
		ME-305	Design and Developmental Approach Aimed at Polar Solvent Chemical Sensor for Biomedical Application	K. S. Srin, J. Ramkumar and Ravi Bathe	
			Fabrication of highly oriented piezoelectric nanofibers using a low cost and lab-scale electrospinning system	Nguyen Duc Nam, Nguyen Van Tuan, Dam Ich Hung, Vu Van Huong	
		ME-248	A review on Recent advances in accumulative roll bonding of similar, dissimilar and metal matrix composites	G. Naga Mallikarjun Rao, V. Ravindra Manikanta Kumar	
6	Saturday, 22nd January 2022 (15:00-17:00)	ME-222	Investigations on Motorbike Frame Material and Comparative Analysis using Generative Design and Topology Optimization	Shayaan Ahmed, Manoj Kumar Gupta	Click here
			Study on Influence of Nano-filler Content on the Performance of Natural Fibre Reinforced Epoxy Composites	M D Mohan Gift	
		ME-227	Influence of supply inlet jet angle on ventilating respiratory droplets from makeshift isolation enclosures	Harikrishnan S, Manish M	
		ME-209	Auxetic Structure Metamaterial for Crash Safety of Sports Helmet	Bharath R Krishnan, Ankan Narayan Biswas, KV Ahalya Kumar, P S Rama Sreekanth	
		ME-363	Experimental Investigation on Nozzle Flow at Different Levels of Jet State at Supersonic Mach Numbers with Sudden Expansion	Ridwan, Suheel J. I, Hamza Afser Delvi, MashtaqAhamed Attar M, Sher Af-ghan Khan and Mohammed Faheem	
		ME-357	Design and Analysis of Constant Volume Optical Chamber for spray and combustion characterization	Kakumani Chakradhar and Manas Kumar Pal	
			Phytochemical Screening, Total Phenolic, Flavonoid Contents, and Antioxidant Activities of Four Spices Commonly Used in Vietnamese Traditional Medicine	Huynh Xuan Phonga, , Nguyen Thanh Viet , Nguyen Thi Ngoc Quyen, Pham Van Thinh, Nguyen Minh Trung , Tran Thi Kim Ngana	
		MS-220	A Review on Processing and Characterization of Bulk Functionally Graded Polymer Materials	Devada Loknath, Dr. V. M Ravindra Kumar	
Day 2, Sunday, 23rd January 2022					
7	Sunday, 23rd January 2022 (12:00-13:00)	MS-259	A study on collagen-PVA and chitosan-PVA nanofibrous matrix for wound dressing application	Arun Karthick S, Ragavi T. K., Naresh K, Rama Sreekanth P S	Click here
			Investigating the Influence of Nanoparticle Disbanded Phase Changing Material (NDPCM) on the Working of Solar PV	P V Ramya.D, Krishnakumari A, P.T.Dineshkumar, Mudit Prakash Srivastava, L. Vadivel Kannan, G. Puthilibai, P.Manoj Kumar	
		ME-322	Finite Element Analysis on MWNT Reinforced S-Glass Composite	P Ramalakshmi, P Ravinder Reddy and N Sarthak	

		MS-232	A review on progress in magnetic, microwave, ultrasonic responsive Shape-memory polymer composites	N.sivanagaraju, Dr. V.M.Ravindra kumar, Dr. P.S Rama Sreekanth	
8	Sunday, 23rd January 2022 (12:00-13:00)	MS-210	Influence of Surface Treated Halloysite Nanotubes on Mechanical and Thermal Properties of Polypropylene Nanocomposites	Pankaj Tambe , Ambuj Sharma, Hrushikesh Kulkarni, Biswajit Panda	Click here
		ME-370	Experimental and numerical analysis of the bending behavior of 3D printed modified auxetic sandwich structures	Niranjan Kumar Choudhrya, Shailesh Ravindra Bankar, Biranchi Panda and Harpreet Singh	
		MS-203	Micro-structural and Mechanical Characterization of Stir Cast AA5052/B4C Metal Matrix Composite	Murlidhar Patel, Sushanta Kumar Sahu, Mukesh Kumar Singh, Nilesh Dalai	
			A Review on - Fabrication and Testing Methods of Aluminium Metal Matrix Nano Composites for Various Applications	P. Charan Theja, R.Suresh, M.Chandra Sekhara Reddy	
9	Sunday, 23rd January 2022 (12:00-13:00)	MS-282	Effect of chemically treated recycled tire aggregate on the resistance to chloride ion penetration of concrete	Md Jihad Miah, Md. Munir Hossain Patoary, Md. Kawsar Ali, Suvash Chandra Paul, Adewumi John Babafemi, Niranjan Kumar Choudhry	Click here
		MS-240	Experimental Investigations and Mechanical Analysis of Hybrid Natural Fibre Reinforced Composites	Sri Ram Murthy Paladugu, N. Divya Aparna, P. S. Rama Sreekanth	
			Evaluation of Sliding wear, Oxidation, and Corrosion behaviour sustainable hybrid composite Coating	Shubhangi Chourasia, Marut Kumar Mishra, Mohd Shahid, Shanti Lal Meena, Tushar Dhankhar, G P Joshi, Rufat Singh Gulati, Ankit	
			A review on the application of bio-nanocomposites for food packaging	Reshmi Olayil, V.Arumuga Prabu, Srinivasa DayaPrasad, K.Naresh an	
10	Sunday, 23rd January 2022 (15:00-17:00)		Hazard Identification and Risk Assessment in Firework Industry	S. Ajith, V. Arumugaprabu and V. Ajith, K.Naresh and P. S. Rama Sreekanth	Click here
		MS-214	Surfactant Assisted Dispersion of Graphene in Aqueous Solution using Mixed Surfactants	Pankaj Tambe, Ambuj Sharma, Hrushikesh Kulkarni, Biswajit Panda	
		MS-198	Preparation, thermal and structural properties of n-octadecane/melamine formaldehyde nanocapsules embedded cement mortar for energy storage application in buildings	K.V.L.N. Raju, G. Naveen Kumar, c, V. Vinayaka Ram, R. Parameshwarana	
			Performance of Minimum Quantity Lubrication (MQL) and its effect on Dry Machining with the addition of Nano-particle with the biodegradable base fluids: A review	Dibyajyoti Panda, Kanchan Kumari, Nilesh Dalai	
			Size Quantization Effect in Water-dispersible LEEH Capped ZnSe Nanocrystals	Ansuman Nayak, Sukanta Kumar Triapthy, Nilesh Dalai, Swagat Kumar Nayak, Duryodhan Sahu	
		MS-265	Mechanical and Wear Analysis of Al6061-SiC/Al2O3/B4C Hybrid Metal Matrix Composites Using Stir Casting Process	Sri Ram Murthy Paladugu, N. Divya Aparna, P. S. Rama Sreekanth	
		MS-206	Acid Treated Halloysite Nanotubes Polymer Blend-Composites: Mechanical and Thermal Properties Studies	Pravin Kubade, Pankaj Tambe, Ambuj Sharma, Hrushikesh Kulkarni, Biswajit Panda	
			Conversion of Agricultural Waste to Valuable Carbonaceous Material: Brief review	Mattaparthi Lakshmi Durga, Sandip Gangil and Vinod Kumar Bhargav	
11	Sunday, 23rd January 2022 (15:00-17:00)	MS-206	Design, Simulation, and Analysis Using 316 Stainless-Steel Alloy Based Automatic Protection Guard for Bike	Nunna Mahesh , Ankan Narayan Biswas, Peri Shanmukha Ram, P S Rama Sreekanth	Click here
			Influence of Gamma Radiation on Wear and Oxidation Properties of Cross-linked UHMWPE Components Used in Total Knee Arthroplasty- A Review	Sri Ram Murthy Paladugu, P. S. Rama Sreekanth	
			Significances, Possibilities and Challenges of developing power transmission line conductors from Carbon nanotubes	Danish Khan, Mujahid Ali, Ahmed Muddassir Khan, Mohsin Ali	
		ME-238	Strain Hardening Effect in Austenite Ferrite dual-phase steel Subjected to Tensile Deformation	Nandhu. M. Nair, P. Nithin Raj, and Jinu Paul	
		ME-256	Influence of various material parameters on void growth in amorphous glassy polymers	Shreyas Khandelwal, Shivam Keshri, Debashis Khan	

			Hot-extrusion Behavior of Biodegradable Zn-Mg Alloys	M. Vidhish Naik, N. Narasaiah, P. Chakravarthy, R. Arockia Kumar	
		MS-219	Effect of SiHGM reinforcements on the corrosion rate of Al 4032 MMC	Avinash Gudimetla, Dumpala Lingaraju, S Sambhu Prasad	
			COMPARATIVE STUDY OF GRADIENT CELLULAR PATTERN (IN-PLANE) HONEYCOMBS WITH COMPLIANT HONEYCOMBS	K V Ahalya Kumar	
12	Sunday, 23rd January 2022 (15:00-17:00)	MS-243	Solvent Assisted Dispersion of Graphene and its PVA Nanocomposites Coating: Processing and Characterization	Pankaj Tambe, Ambuj Sharma, Hrushikesh Kulkarni, Biswajit Panda	Click here
		ME-327	Effect of micro tool-tips in Electrochemical Micromachining	Abhinav Kumar, Manjesh Kumar, HNS Yadav and Manas Dasa	
		MS-204	Optimal selection of an AA8011 reinforced Nano S i3N4 composite using multicriteria decision-making method	Rajesh Sharma, M. K. Pradhan, Pankaj Jain	
		MS-229	Bagasse reinforced Epoxy- Based Green Composite for Orthotic Callipers: Tribological Study	Nisha Kumari, Saroj kumar Sarangi	
		MS-255	Fabrication of hierarchically textured aluminum-based superhydrophobic surfaces for anti-frosting application	Tibin M Thomas, Pallab Sinha Mahapatra	
			STAINLESS STEEL WAVE SPRING AS VIBRATION ABSORBER FOR MOTORCYCLE: DESIGN SIMULATION AND ANALYSIS	Kakumani Venkata Siva Prasad, Vunnam Nagasai, Jangala Sai Sri Laxman, K V Ahalya Kumar, P S Rama Sreekanth	
		MS-233	Fatigue Behaviour of Dental Implant using Finite Element Method	Chitrance Kumar Srivastav, Rajat Kapoor, Debashis Khan	
			Importance of Radon Assessment in Indoor Environment-a Review	Preethi Gopalakrishnana, J.Jeyanthi	
Day 3, Monday, 24th January 2022					
13	Monday, 24th January 2022 (11:00-13:00)		Experimental Investigation of Emission Characteristics of Compression Ignition Engines Using Dairy Scum Biodiesel	Shaik Masthan Shareef, Dillip Kumar Mohanty	Click here
			Aluminium 6061 & HDPE Incorporated Study on Gradient Honeycomb-Hybrid Auxetic Fused Structure for Energy Absorption	Ankan Narayan Biswas, Nunna Mahesh, P S Rama Sreekanth	
		MS-197	Bio-based hexadecanol impregnated fly-ash aggregate as novel shape stabilized phase change material for solar thermal energy storage	R. Naresh, R. Parameshwaran, V. Vinayaka Ram, P. V. Srinivas	
		MS-238	Damping analysis of sandwich beams with the viscoelastic particulate composite core using fractional order derivation viscoelastic constitutive model	Abhay Gupta, Munendra, Rajidi Shashidhar Reddy, Satyajit Panda	
			The effect of Electrical Discharge Machining parameters on the surface quality of 3D woven Carbon/Carbon composite	Hamed Abdoli, Mohammad Hosein Allae, Jalal Abdoli	
		MS-277	Fabrication and characterization of PVDF/BaTiO3 nanocomposite for energy harvesting application	Mukesh Kumar, Nikhil Dilip Kulkarni, Poonam Kumari	
			Metals, Ceramics, Polymer Nanocomposites for various Applications: A Review	Krishna Sai Prasad, Krishna Chaitanya, S. Bhanu Murthy	
			Mechanical Properties and Tribological Behavior of Al7075 Metal Matrix Composites: A Review	Shaik Khaleel Pasha, Ambuj Sharma, Pankaj BalKrishna Tambe	
		MS-281	Free vibration analysis of PLA based auxetic meta-material structural composite using finite element analysis	Yugam Singh Kushwaha, Namana Sri Hemanth, Nitesh Dhar Badgayan, Santosh Kumar Sahu	Click here
		MS-200	Investigation of Optical, Structural and Physical Properties of Ternary Bismuth Tellurite Glasses	R. P. Kumbhakar, S. K. Dhiman, S.K. Mahajan, Ghizal F. Ansari	
		ME-204	Design and Analysis using Aluminium 6061 for Lengthwise Gradient Honeycomb structure to obtain graded beam properties	Peri Shanmukha Rama , Ankan Narayan Biswasa , Nunna Mahesha , R. Bharath Krishnana , P S Rama Sreekantha	

14	Monday, 24th January 2022 (11:00-13:00)		Phytochemistry and Pharmacology of Saussurea Genus (Saussurea lappa, Saussurea costus, Saussurea obvallata, Saussurea involucreta)	Jagdeep Kumar and Mahima Pundir	
			Hazard Identification and Risk Assessment Using Integrated Exposure Frequency and Legislation Requirements (HIRA-FL) in Construction Sites	V. Arumugaprabu, S. Ajith, J. Jerendran, K.Naresh and P. S. Rama Sreekanth	
			Multi-Objective Optimization in Turning of Al 7075-SiC Composites Using Desirability Analysis	Sadineni Rama Rao, Ravi Kumar Mandava, Veeravalli Rama Koteswara Rao	
		ME-328	A review on rheological properties of magnetorheological fluid for engineering components polishing	Manjesh Kumar, Abhinav Kumar, Rahul Kumar Bharti, H.N.S Yadav and Manas Das	
		ME-249	Optimization of fluid modeling and flow control processes using Machine Learning: A brief review	Surbhi Razdan and Sarth Shah	
15	Monday, 24th January 2022 (11:00-13:00)		Analysis and Develop a Novel Multi-Piece-Split-Cavity Mold for the Fabrication of Bipolar Femoral Head	Sangeetha Sriram, Bhimavarapu Sambhi Reddy	Click here
		ME-205	A novel brass burner for conventional LPG stove with convergent holes	Jangala Sai Sri Laxman, Venkat Siva Prasad, Vunnam Naga Sai, Dr. P.S. Rama Sreekanth	
		ME-208	Comparative Analysis and Simulation of Metal and Non-metal Polymer Composite Gears	Vunnam Naga Sai, Kakumani Venkata Siva Prasad, Jangala Sai Sri Laxman, Dr. P S Rama Sreekanth	
			Taguchi Optimization of Metal Inert Gas (MIG) Welding Parameters to withstand High Impact Load for Dissimilar Weld Joints	SP. Arunkumar, C.Prabha, Rajasekaran Saminathan, Jabril A. Khamaj, M. Viswanath, C. Kevin Paul Ivan, Ram Subbiah, P. Manoj Kumar	
			Experimental investigation of the solar distiller using nano-black paint for different water depths	V.S. Chandrika, J. Samson Isaac, Jackson Daniel, K. Kathiresan, C T. Muthiah, E Fantin Irudaya Raj, Ram Subbiah	
			René 41 & Waspaloy based Comparative Study for High Pressure Turbine Blades used in Turboshift Engines	Shayaan Ahmed, Ankan Narayan Biswas	
		MS-237	Effect of Solid Lubricant Addition in Coating Produced by Laser Cladding Process: A Review	Anil Kumar Das	
	Mechanical and Wear performances of UHMWPE Composites used for Orthopaedic Applications- A Review	Sri Ram Murthy Paladugu, P. S. Rama Sreekanth			
16	Monday, 24th January 2022 (15:00-16:00)	ME-273	Finite element modeling of railway wheel gauge change during braking: Effect of lateral shift of brake block	Abenesh K.S, M.R.K Vakkalagadda, Racherla V, K.P Vineesh	Click here
			Applicability of Convection Drying Process for Production of Instant Tea Powder from Condonopsis Javanica Root Extract	Phu Thuong Nhan Nguyen	
			Fabrication of surface metal matrix composites for structural applications using friction stir processing – A Review.	Ambuj Sharma	
			Review on Influence of Radiation, Particle size and Molecular weight on Thermo-Mechanical Properties of UHMWPE composites.	Sri Ram Murthy Paladugu, P. S. Rama Sreekanth	
17	Monday, 24th January 2022 (15:00-16:00)		Evaluation of the Marginal Fit of Cobalt-Chrome Coping with Three Different Fabrication	Gayathri Devi S K	Click here
			Effect of Neem Seed Biochar on the Mechanical and Wear Properties of Aluminum Metal Matrix Composites Fabricated using Stir Casting	sabitha jannet	