Gr1: Processing of Materials

Abstract ID	Authors	Abstract title
Gr1 (1)	Dillip Kumar Biswal	A Review on Current fabrication strategies and application of Ionic polymer Metal Composite (IPMC) Actuator
Gr1 (2)	Ranjeet Prasada, Vinay Sharmaa, Manish Oraonb	An Investigation on Spring Back Error of High-Strength Thermal Resistant (HSTR) Metals in Incremental Sheet Metal Forming
Gr1 (3)	Sambit kumar Mohapatra, Kalipada Maity	Investigation through Numerical Simulation and Experimental Validation of Square Bar Extrusion in Al-Mg-Si Alloy
Gr1 (4)	Sunita Routray, Subhasmita Patra, Rudra Narayan Mohapatro, Ranjita Swain	Kinetic Study on Grinding Zircon to Produce Zirflor Using Planetary Ball Mill
Gr1 (5)	Aveen K P, Shivaramu H T, Vignesh Nayak Ulla, B Shankar Shenoy, G Ezhilmaran	Analyzing Drilling Parameters for FRP Composites using Grey Relational Analysis and ANN coupled with Genetic algorithm
Gr1 (6)	B Sai Prakash, Dillip Sahu, Manoranjan Singh, Mousom Bag, Deepsikha Brahma,Tushar Agarwal, Nitish Kumar, Moromee Das, Shailesh Purne Rao.	Torpedo Refractory Digital-Twin
Gr1 (7)	Salil Karmarkar, Sharan Shetty, Digvijay Mahale, Dr Rajesh Khatirkar, Dr Chaitanya Joshi	Monte Carlo Modelling of Recrystallization and Grain Growth in Single-Phase Materials Using EBSD Data
Gr1 (8)	Adityaprasad Sahoo, Jogendra Majhi, Sandeep Kumar Sahoo, Bhabani Prasad Sahoo, Kashinath Barik	Impact of Al2O3 and SiC Reinforced Particles on the Density, Hardness and Microstructural Changes in Al-Si Hybrid Composite
Gr1 (9)	Rupali, Vicky Kumar Mandal	Performance study of Step Drill in Different Materials and Comparison with Conventional Drill
Gr1 (10)	Ch. Devi Vara Prasad, Sreeram Banerjee, G Appanna, P Sunil	Synthesis of hydrogenated HTPB using various catalysts
Gr1 (11)	Sambit kumar Mohapatra	Grey-Taguchi Based Multi-Response Optimization of Cylindrical Billet Compression Using FEM and Experimental Validation
Gr1 (12)	Ajeet Mishraa, Dr. Mukesh Raushan Kumara	Influence of Nickel Additions on Lead-Free solder Alloy: A Critical Review of Recent Developments
Gr1 (13)	Gourahari Behera, Bhumilata Pasayat, Dinesh Kumar Mishra, and Renu Prava Dalai	Effect of Sintering Temperature and TiC Reinforcement on Microstructure and Mechanical Properties of Al-SiC-TiCHybrid Composite Developed by Powder Metallurgy
Gr1 (14)	Sweta Upadhyay, Abhisek Panigrahi, BarsharaniDash, Rima Singha Roy	Micro-drilling performance of Titanium Grade 5 Using PVD-Coated Carbide Tools
Gr1 (15)	Babuli Chandra Kar, Pushkar Jha, Sambit Kumar Mohapatra,	Tribomechanical Characterization of an Al-Mg-Zn Matrix Composite Reinforced with Soda-Lime Silica Glass
Gr1 (16)	Barsharani Dash, Kalipada Maity	Parametric Optimization of Nitrogen-Assisted Laser Drilling for Titanium Grade 9 Alloys
Gr1 (17)	Gautam Ranjan, B. Kiran Naik, V K Singh	Assessment of Crystallographic and Mechanical Properties of Single-Crystal Pure Tungsten
Gr1 (18)	Durjyodhan Sethi, Ajay Kumar Behera, Sudhansu S. Patro, Rasmi Ranjan Behera, Ranjan K. Behera	Mechanical and Tribological Performance of Al6082 Composites Reinforced with Micro-Sized SiC Particles via Stir Casting
Gr1 (19)	Sandeep V, Ashutosh Pattanaik, Mantra Prasad Satpathy	Optimizing Ultrasonic Welding Parameters for Al-PB Joints: A Study of Joint Strength and Microstructure
Gr1 (20)	P. S. Raghavendra Rao	The performance of machining in manufacturing industries depends on the cutting tool, particularly the shearing action on the tool rake face that generates heat
Gr1 (21)	Sandeep V, Ashutosh Pattanaik, Mantra Prasad Satpathy	Tailoring Thickness Variation for Achieving Superior Joint Integrity in Ultrasonic Welding of Dissimilar Metals
Gr1 (22)	Shivaprasad D, Ashok Kumar M S, Ramakrishnaiah, Shanthala K	Mechanical Characterization of Aluminium based Hybrid MMCs
Gr1(23)	Abhisek Panigrahi, Kalipada Maity	Machining Optimization of Inconel 925 via RSM and Machine-learning Approach

Gr1(24)	Nemthianhoi Zou P, Debashish Dash	Exploring the structural, electronics, optical and elastic properties of $\boldsymbol{Rb3Bi2Br9}$ for photovoltaic applications: A DFT outlook
Gr1(25)	Vijeesh Vijayan	AI driven Modelling for RSW Tensile Shear Strength Prediction
Gr1(26)	Yogesh Singh, Manojkumar S, Kumud Kant Mehta	Microstructure and texture evolution during heat treatment of Nb-10Hf-1Ti refractory alloy
Gr1(27)	Requested for cancellation	
Gr1(28)	Subikasha Swain, Bichitra Kumar Sahoo, P. Chandrasekhar, Saranjit Singh	Optimizing Compaction Pressure and Foaming Parameters for Enhanced Mechanical Properties in Powder-Metallurgy-Based Aluminum Foams
Gr1(29)	Mahaboob Patel	A Density-Based Analytical Approach for Quantifying Tunnel Defect Volume in Friction Stir Welded Joints
Gr1(30)	Sushovan Basak, Arka Ghosh, Soumitra K Dinda	Experimental Study of MIG Brazing Parameters on Mechanical Performance of Copper–Stainless Steel Dissimilar Joints

Gr2: Advanced Materials & Alloy Development

Abstract ID	Authors	Abstract title
Gr2 (1)	Shivaramu H.T, Vignesh Nayak U, Aveen K P1	Development and Characterization of Carbon Nanotube Coatings on Al-Si Alloy Substrates for Enhanced Light Absorption
Gr2 (2)	Anish K Raj, Spandan Guha, Debjyoti Sahu	Chemical Vapor Deposition: A Versatile Approach to Synthesizing Films and Nanomaterials for Diverse Applications
Gr2 (3)	Vijeesh Vijayan & Narayan Prabhuc	Enhanced Microstructure and Strength of Al-13Si Alloy via Combined Cerium and Strontium Additions
Gr2 (4)	Adityaprasad Sahoo, Sandeep Kumar Sahoo, Jogendra Majhi, Kashinath Barik, Bhabani Prasad Sahoo	The Synergetic Effect of In-situ TiB2 and Ex-situ Al2O3 in Al-Si Binary Alloys for Enhancement of Wear Properties
Gr2 (5)	Vikas Ranjan, Sambit Kumar Mohapatra, Sushanta Tripathy	Finite Element Analysis of Dual Twist Channel Angular Extrusion (DTCAE) for Ultrafine-Grained Material Processing as an Advanced Severe Plastic Deformation Technique
Gr2 (6)	Ruchi Agrawal, Bhumilata Pasayat and Dinesh Kumar Mishra	A Review on Dielectric Ceramics for Advanced Applications
Gr2 (7)	Adarsha H, A Pattanaik	Synthesis and Characterization of AZ91 Magnesium Alloy-Alumina/Ceria Composite Coating by Thermal Spray Technique
Gr2 (8)	Gunvanta Dhanuskar, Abhaykumar Kuthe, Kashish Wanjari, Bhupesh Sarode, Subodh Daronde and Nagnath Kakde	Integrated Taguchi and Teaching-Learning-Based Optimization of NBRBS Mold Parameters for improved mechanical properties in AZ31 Magnesium Alloy Castings
Gr2 (9)	Akriti Goswami, Srinivasarao Naik B., Md. Basiruddin Sk., Jayanta Kumar. Mahato	Effect of Process Routes and Calcination Temperatures on Synthesis of Nano-Alumina Through Sol-gel Process
Gr2 (10)	Anju Kaushal, Mukesh Raushan Kumar	Wettability, Microstructural Characteristics and Phase Evaluation in Sn-5Sb-XZn Lead-free Solder Alloy
Gr2 (11)	Lipsamayee Mishraa, Barsharani Dash, Abhisek Panigrahi, Debadutta Mishrad	Electrochemical Drilling of NiTi: Parametric Influence on Machining Quality Using RSM
Gr2 (12)	Rakesh Chaudhari, Vijay Iyer, Shubham Kala, Kunal Kabra, Rajendra Shimpi, Dinesh Shinde	Thermo-Mechanical Analysis of Ni-Cr Coated Brake Discs Using Finite Element Method
Gr2 (13)	Ishu Verma, Md. Basiruddin Sk., R. K. Jain, and Jayanta Kumar Mahato	Effect of Ratio of Major Alloying Elements and Ageing Heat Treatment on Mechanical Properties and

		Corrosion Resistance of Al-Zn-Mg Alloys
Gr2 (14)	Sudhansu S Patro, Ranjan K Behera, Rasmi Ranjan Behera, Durjyodhan Sethi	Effect of annealing temperature on Nanoindentation and Nano scratching behaviour of magnetron sputtered NiTi films
Gr2 (15)	Ranjan K. Behera, Durjyodhan Sethi, Rasmi Ranjan Behera, Sudhansu S. Patro, Ajay Kumar Behera	Investigation the Effect of Process Parameters on Friction Stir Processing of AA6061-T6/SiC Composite
Gr2 (16)	Shivaprakash K S, Niranjan murthy	A Review of Multiple Jet Impingement of Nanofluid on Flat Plate
Gr2(17)	Sambit Swaina, Anshuman Patra	Effect of nano-dispersed Y2O3 on oxidation resistance of Mo-Ni-Si-Co alloys
Gr2(18)	Arka Ghosh, Syed Nasimul Alam, Sushovan Basak, Nityananda Sahoo, Pankaj Shrivastava, Uttam Kar, Parth Patel	Development and Characterization of Aluminium-Graphite Nanoplatelet (Al-GnP) Nanocomposites for Enhanced Mechanical and Tribological Performance
Gr2(19)	Shashank Kumar Srivastava, Gaurav Kumar Gupta, Anirban Changdar, Joe Elambasseril, Tilak Chandra Joshi, Kalpit Shah, Milan Brandt, Ma Qian	Advancements and Perspectives on Hollow Sphere filled Syntactic Foams: A Promising Solution for Structural Applications
Gr2(20)	Bhanja Prasad Patroa, Rahul Chandra Pradhana, Prasanta Rathb, Rahula, Bijaya Bijeta Nayaka, Diptikanta Dasa*	Mechanical properties of fiber reinforced polymer composites: an overview
Gr2(21)	Soumya Ranjan Parimanik, Debadutta Mishra, Trupti Ranjan Mahapatra	Ensemble-ML Surrogate and NSGA-II Optimisation of Fibre-Laser Welding Parameters for NiTi SMA
Gr2(22)	Dr. Ashalata Puhan	Sr, Co co-doped BiFeO3 nanoparticles for enhanced magnetic and dye removal activity
Gr2(23)	Praveen Gagrai, Jyoti Shankar Jha, aShanta Chakrabarty*, Rasmi Ranjan Behera	The Effect of Aging and hot deformation on the concurrent evolution of precipitates in DS-CM247LC Superalloy

Gr3: Degradation of Materials & Fracture

Abstract ID	Authors	Abstract title
Gr3 (1)	*B Sai Prakash, Sandip Baishnab, Nitish Kumar, Amit Jha, Ujjal Naskar,Bishwajeet*	Mitigation of Flame failure in a Power Plant using Machine Learning
Gr3 (2)	B Sai Prakash, Anand Singh, Nitish Kumar, Navneet Sinha, Sujit Roy, Amarnath .M. Rakesh J, Abhishek P.B.	Refractory lifecycle management for LD vessel
Gr3 (3)	Pooja Mangaladevi, Vijeesh V, Ravishankar K.S, Vasudeva Madav	High temperature corrosion behavior of Inconel 625 alloy in Eutectic KCl-ZnCl2 molten salt environment
Gr3 (4)	Sujata Panda, Dabbiru Satish Kumar	Advanced Characterization Techniques for Zn-Al-Mg (ZAM) Coated Steel
Gr3 (5)	Sanjay Kumar, Ishu Verma, Jitender K.S. Jadon, Md. Basiruddin Sk. and Jayanta Kumar Mahato	Effect of Process Routes and Hybrid Ratios on Mechanical Properties and Corrosion Behaviour of Hybrid AMCs
Gr3 (6)	Deepak Adhikari, Pradyut Sengupta, Mayadhar Debata	The role of Cr2AlC MAX phase incorporation towards the distortion prevention in 90W-6Ni-2Fe-2Co heavy alloys
Gr3 (7)	Sankhasubhra Mukhopadhyay, Soumitra Kumar Dinda, Snehanshu Pal	Bending Creep Characteristics of C15 BaPd2 Crystal: A Molecular Dynamics Study
Gr3 (8)	Jagadish Paridaa, Adiraj Beherab, Sudhansu Meherc*	Study of Mechanical, Tribological and Corrosion Behavior of LM0 Alloy Prepared by Sand Casting and Plasma Melting Process

Gr3 (9)	Sandeep Bhoi, Aditya Mallik, Durjyodhan Sethi*	Investigation on the Effect of Reinforcement Particles on Mechanical and Tribological Properties of AA7075/TiB2 Metal Matrix Composite Prepared by Stir Casting Method
Gr3(10)	Bimal Gouda and Manoj kumar Barik	Resolving Carrier pin Failure Issue of Swing device in ZX-470GI & ZX-220GI by improving Heat treatment process
Gr3(11)	G S Pradeep Kumar, R Keshavamurthy, Shijo Thomas, Advaith A, Shashi Kumar M E, Adarsha H	Air Jet Erosion Behavior of FDM-Printed PLA Composites Reinforced with Steel Powder Fillers
Gr3(12)	Manas Ranjan Sahoo, Sudesna Roy, Shanta Chakraborty, Diptikanta Das, Rasmi Ranjan Behera*,	A Review on Tribological and Mechanical Properties of Aluminium Metal Matrix Composite
Gr3(13)	R Keshavamurthy, Raghu Yogaraju, G S Pradeep Kumar Pavan kumar B K, S Mohan Kumar	Flexural Performance of FDM-Fabricated PLA Composites Reinforced with Continuous Carbon Fibers at Varying Weight Fractions
Gr3(14)	Bhanja Prasad Patro, Rahul Chandra Pradhan, Barada Prasanna Sahoo, Prasanta Rath, Ramanuj Kumar, Rita Kumari Sahu, Chandrika Samal, Diptikanta Das*	Comprehensive review on tribological behaviour of fiber reinforced polymer composites in sliding wear and abrasion wear environments
Gr3(15)	Guru Anirudh G	Multi Layered Yttria stabilized Zirconia based Thermal Barrier Coating using Atmospheric Plasma Spray
Gr3(16)	Prashant Raj, Somak Datta, B Acherjee, Jyotsna Dutta Majumdar, Indranil Manna,	Hard and wear resistant coating by laser surface cladding using different alloy powders as a substitute for Hard Chrome Plating

Gr4: Energy Materials

Abstract ID	Authors	Abstract title
Gr4 (1)	Manjesh Bandrehalli Chandrashekaraiah, Beemkumar Nagappan, Sunil Kumar Muniraj	Synergistic Integration of Photovoltaic Module, Thermal Energy Storage, and Thermoelectric Generation: A Performance Study
Gr4 (2)	Rakesh Ku. Yadav et al.	Comparison of performance analysis of piston materials using solid works and ANSYS simulation
Gr4 (3)	Muhil Raj Prabhakar, Paramasivan Balasubramanian	Sustainable Energy Storage: A Comparative Investigation of Cellulosic Supercapacitors from Different Waste Paper Sources
Gr4 (4)	Nibedan Nanda, Aman Malasi, Sujata Swain, Susmita Garnayak, A P Kajal Parida, Pawan Kumar	Electrocaloric and Energy Storage Studies of BST30 Ceramics Synthesized by HEBM-assisted Solid-State Reaction Route
Gr4 (5)	Zeba Sultana, Chandresh Kumar Rastogi, Neeraj Yadav, Gopal Ji, S. Girish Kumar, Manjunatha C.	Fuel-Controlled Combustion Synthesis of Nickel Oxide-Strontianite Nanocomposite for Energy Storage Applications
Gr4 (6)	Saiswarupa Argyarupa	Energy Generation using Magnestostrcitive and Piezoelectric Material
Gr4 (7)	Shivam Singh Yadav and Vijay Singh	Optimization of Agricultural, Food, and Industrial Waste into Biochar Conversion for Energy Applications

Gr5: Additive Manufacturing

Abstract ID	Authors	Abstract title
Gr5 (1)	Debasis Patel, Aunkitt Nag, Rudranarayan Kandi	Design and development of a Low-Cost Direct Ink Writing (DIW) setup for the fabrication of a piezoelectric nanogenerator
Gr5 (2)	vigneshwaran s	Comparative Study of Linear Reciprocating Wear Behavior of Conventional and Laser Metal Deposited Ti-6Al-4V Alloys at Elevated Temperatures
Gr5 (3)	Adarsh Rai, Vishwanatha H. Mb. and Vijeesh Vijayan	Microstructure and Mechanical Behavior of Nickel-Aluminum Bronze Fabricated by Wire Arc Additive Manufacturing and Sand Casting
Gr5 (4)	Louella Concepta Goveas, Rishith Shetty, Vikas, Pavan, Suraj Kumar and Vijeesh Vijayan	Development and Characterization of a Temperature-Sensitive 4D Printable Hydrogel Using a Bio-3D Printer
Gr5 (5)	Raghavendra Pai, Vishwanatha H. M. and Vijeesh Vijayan	Influence of Process Parameters on Layer Geometry and Composition in GMAW-Based WAAM of 5043 Aluminium Alloy
Gr5 (6)	Manoj Kumar	Opportunities and Challenges in Additive Manufacturing of Aluminium Alloys
Gr5 (7)	Rajath N Rao, Adarsh Rai, Vikas Marakini, and Vijeesh Vijayan	Effect of in-situ substrate preheating during WAAM on the microstructure, residual stresses and mechanical properties of Nickel Aluminium Bronze (NAB) alloy
Gr5 (8)	Ramkumar N P, S C Sharma, Adarsha H	Mechanical Properties of PEEK/GO Nanocomposites Fabricated via Stereolithography
Gr5 (9)	Swapnil Deokar, Narendra Kumar, Ravi Pratap Singh	Intelligent Optimization of FDM Process Parameters in Additive Manufacturing Using Taguchi and Fuzzy Logic Approaches
Gr5 (10)	Pradeepa Kumar Mohanty*, Amruta Panda, Trupti Ranjan Mahapatra, Debabrata Rath	Surface quality analysis of machining Titanium alloy (Grade 5) in EDM process
Gr5 (11)	Swapnil Deokar, Narendra Kumar1, Ravi Pratap Singh	Artificial neural network for process parameter prediction for additive manufacturing thermoplastic polyurethane
Gr5 (12)	Trilochan Pradhan, Bibhuti Bhusan Choudhury	Smart Composite Materials in 3D Printed Prosthetic Hand Development: A New Approach
Gr5 (13)		
Gr5 (14)	Ramkumar N P, Adarsha H, Keshavamurthy R	Impact of Carbon Nanofiber filler on Surface Finish and Dimensional Accuracy in FDM-Printed Polymer Composites Parts
Gr5 (15)	R Keshavamurthy, G S Pradeep Kumar, Dokka Abhishek Dikshith , S Dhruva Deep varma, John S korattiyi, Ashutosh Pattanaik	Effect of Steel Fillers on Slurry Erosion Behavior of FDM-Printed PLA-Based Polymer Composites
Gr5 (16)	R Keshavamurthy, Raghu Yogaraju, G S Pradeep Kumar Pavan kumar B K, S Mohan Kumar	Flexural Performance of FDM-Fabricated PLA Composites Reinforced with Continuous Carbon Fibers at Varying Weight Fractions
Gr5 (17)	Amal Manoj, Prakrathi S, Abhishek Rajan, Chandrashekhar Bhosale and Abhishek Mishra	A Study of fabricated 3D Printed ABS Scaffolds for Biomedical Applications

Gr6: Furnace technology & Extractive Technology

Abstract ID	Authors	Abstract title
Gr6 (1)	B Sai Prakash, Satish Agarwal, Shivam Mishra, Abhinav Singhvi, Abhimanyu Kumar Singh, Nitish Kumar	Prediction of LD end-point temperature
Gr6 (2)	Sujata Panda, Sampathswamy. KM, Dabbiru Satish Kumar	Analysis of tuyere failure in 5000 m3 Blast Furnace
Gr6 (3)	Sibangi Ratha, Subhabrata Mishra, Prabhas Chandra Beuria	Sustainable Approach to Recover Iron Values from Low-Grade Banded Iron Ore by Hydrogen-Based Reduction Roasting
Gr6 (4)	DYNATEK HEAVY EQUIPMENT PVT. LTD.	Super plasma arc furnace
Gr6 (5)	Shikhar Ranjan*, Dhirendra Prasad, Bikash Kumar Chatterjee, Pradeep Chaudhary, Surajit Sinha	High Pressure Extrusion Briquettes of Process Solid Wastes to Reduce Coke Rate in Blast Furnace
Gr6 (6)	Dhirendra Prasad*, Shikhar Ranjan, Bikash Kumar Chatterjee, Pradeep Chaudhary, Surajit Sinha	Recent Advancements in Raw Materials Preparations – Briquetting of Sinter Fines as a Third Agglomerate for Blast Furnaces
Gr6 (7)		

Gr7: Green Technology & Sustainable Materials

Abstract ID	Authors	Abstract title
Gr7 (1)	Dr. Dushyanth V Babu R, Shaik Numan Mahdi, Dakka Gurappa	Development of sustainable geopolymer concrete for precast compound wall panel
Gr7 (2)	Lalit Chowdhury, Manoja Dash, Sarada Mohapatra, Debasis Mohanty, Prakash Kumar Sahoo, Sushree Chowdhury, Chittaranjan Sahu	Isolation, assessment , identification and characterization of the efficacious phyto-compounds for the control of groundnut pest Oryzaephilus surinamensis infesting stored Groundnuts (Arachis hypogaea L.)
Gr7 (3)	Ashutosh Das, Sudhin Sukumaran, Shantanu K. Behera	Nickel tip-decorated carbon hybrid with spaghetti-like architecture as an efficient electrocatalyst for oxygen evolution reaction.
Gr7 (4)	Durgamadhab Mishra*, Aswini Kumar Mohapatra, Renuprava Dalaic	Poly Lactic Acid (PLA) and Polyhydroxyalkanoates (PHAs): Biodegradable and Renewable Plastics for Sustainable Development– A Review
Gr7 (5)	Kawal Lal Kurrey; Manish Oraon; Sharad Chandra Srivastava	Design of Portable Friction Stir Welding System: A Green Solution for On-Site Material Joining Applications
Gr7 (6)	Mohd Aman, Vivek Kumar and Rakesh Kumar Yadav	Fabrication and characterization of Moonj fiber-reinforced epoxy composite
Gr7 (7)	Sambit kumar Mohapatra, Kalipada Maity	Enhancement of Mechanical and Tribological Properties of Al-Mg-Gr-Soda Lime Silica Glass Composite through Hot Extrusion
Gr7 (8)	Arunkumar D T, Ashutosh Pattanaik	Novel Fertilizer Mixture for Regional Agricultural Applications
Gr7 (9)	Sumit Rana, Harsh Rathi, Jyoti Sharma, Lomas Kr. Tomar, Subrata Das, Jayanta Kr. Mahato	Effect of Gelatin Concentration on Cell Culture Compatibility of Chitosan Based Polymeric Composites
Gr7 (10)	Manu S E, Dasarathy, A. K., M. Tamil selvi and S. Ponkumar Ilango	Pollution resulting from noise produced by different sources and measures for attenuation
Gr7 (11)		
Gr7 (12)	Manu S E, Dasarathy A K	Experimental investigations on sustainable concrete with bamboo flakes ash
Gr7 (13)	Kanathala Yojitha, B. Kiran Naik	Numerical simulation of heat and moisture transfer in protective clothing under extreme environmental

		conditions: Effect of fabric properties
Gr7 (14)	Ashutosh Pattanaik, Sandeep V, Mantra Prasad Satpathy, Adarsha H	Ultrasonic Welding of Dissimilar Al-Ni-Coated Cu for EVs: Enhancing Joint Strength and Electrical Conductivity for Sustainable Battery Applications
Gr7 (15)	Arpita Nayaka, Priyadarshi Dasa, Sasanka Choudhury, Jagesh Kumar Prusty, Dhaneshwar Prasad Sahu and Shishir Kumar Sahu	Crack Effect Studies on Modal properties of Laminated Composite Beams under free vibration in Hygrothermal Environment
Gr7 (16)	Pradeep Kumar Mohanty, and Singam Jayanthu	Evaluation of effect of oil type in agglomeration process for development of clean coal technology - Indian case studies
Gr7 (17)	Prabina Kumar Patnaik*, Srimant Kumar Mishra, Priyadarshi Tapas Ranjan Swain, Sasank Shekhar Panda	Evaluating Physical and Mechanical Properties of Jute-Epoxy Composites Reinforced with Coconut Shell Particulates: An Experimental Study
Gr7 (18)	Pruthwiraj Sahu, Asit Behera, Dayanidhi Jena, Sambit Kumar Mohapatra, Surendra Kumar Ghadei	Mechanical performance of bamboo-coir hybrid composite: An experimental approach
Gr7 (19)	Suren C, Karthikeyan N	The Insight Comparative Investigation of Palm and Bamboo Fibre Characterization Techniques
Gr7 (20)	Balasubramanya H S*, Ulhas K Annigeri, and K. R. V. Subramanian	Surface Integrity Optimization of Sustainable Al6061-B_4C MMCs through DOE-Based Machining Analysis
Gr7 (21)	Purushottam Kumar*, Bappa Acherjee, Joyjeet Ghose, Somnath Chattopadhyaya	Laser-assisted manufacturing and structural characterisation of MPM hybrid composites
Gr7 (22)	Chandrasekhar Dey, Souvik Das, Soumitra Dinda	Advanced Fault Detection and Diagnosis of Induction Motor Bearings Using Recurrent Neural Networks
Gr7 (23)	Ananya Pal, Satish Chnadra Bhuyan*, Jajneswar Biswal, Suhmita Mishra, Pallavi Behera	A Study of Heavy Metals Removal from Aqueous Solutions Using Low-Cost Industrial By-Products

Gr8: Aerospace and Defence Materials

Abstract ID	Authors	Abstract title
Gr8 (1)	Parth Patel, S. Basak, S. K. Karak and S. K. Sahoo	Cold Metal Transfer Welding of Ti-6Al-4V Sheets for Aerospace Applications
Gr8 (2)	Abhisek Panigrahi, Kalipada Maity	A Hybrid Approach for Machining Optimization of Inconel 925 Using Simulation-Assisted Taguchi and GRA-RSM Techniques
Gr8 (3)	Ajit Kumar Naik, Tapas Laha, Siddhartha Roy	Development of functionally graded ZrB2–B4C composites for lightweight ultrahigh-temperature aerospace applications
Gr8 (4)	Jayaprakash JK, Arunkumar D T, K G Basavakumar, Ashutosh Pattanaik,	Dry Machining of Hypereutectic Al-20%Si with CVD and PVD Coated Inserted
Gr8 (5)	Ashok Kumar M S, Ramakrishnaiah, Shivaprasad D	Tribological Properties Evaluation of Al8011 Reinforced with SiC & S-Glass Fibres
Gr8 (6)	Durjyodhan Sethi, Asit Kumar Behera, Sambit Kumar Mohapatra, Sudhansu S. Patro, Ranjan K. Behera, Rasmi Ranjan Behera	Mechanical and Microstructural Behavior of Al6061 Composites Reinforced with B4C Particles Using Friction Stir Welding
Gr8 (7)	Ranganatha Swamy MK	Development of High-Entropy Alloys for Sustainable Hypersonic Defense Applications
Gr8 (8)	Nani Boyson, Triluk Sharma, Ashish Barman, Roshan Choudhary, Rupam Kalita Jyotisman Boarh and M.Chandrasekaran*	Solving Single assembly line balancing problems with Arena simulation and GA optimization
Gr8 (9)	Ranganatha Swamy MK	Smart Composite Materials with Embedded Sensing Capabilities for Aerospace Structural Health Monitoring and Automation
Gr8 (10)	Rishita Jena, Souvik Das	Automated Helmet Detection in SafetyWork Environments Using YOLOv5: A Deep Learning Approach to Safety Compliance

Gr9: Biocompatible Materials

Abstract ID	Authors	Abstract title
Gr9 (1)	Kalpita Bhatta, Pratikshya Mohanty, Ashish Panigarhi and Sushanta Kumar Sethy	Chitosan Scaffolds in Tissue Engineering and Wound Healing: A Comprehensive Overview
Gr9 (2)	Gunvanta Dhanuskar, Abhaykumar Kuthe, Kashish Wanjari, Bhupesh Sarode, Subodh Daronde and Nagnath Kakde	Integrated Design and Manufacturing of a Topology-Optimized Magnesium Volar Bearing Plate Implant via No-Bake Resin Casting
Gr9 (3)	Susmita Garnayak, Ritvesh Gupta, Abinash Kumar, Sujata Swain, Nibedan Nanda, Devendra Verma, Pawan Kumar	Comparative Study of Bioactivity and Electrical Properties of BCT Ceramics Processed by High-Energy Ball Milling and Normal Ball Milling
Gr9 (4)	Anju Singhwane, Alok Patel, Ranjan K. Mohapatra, Snehasish Mishra, Khalil El-Hami, Sarika Verma	High-efficiency particulate air (HEPA) filter may control the spread of the highly transmissible airborne viruses especially in medical settings: A special focus in COVID-19 and Mpox saga
Gr9 (5)	Rakesh Pani, Rasmi Ranjan Behera, Sudesna Roy*	Influence of Deposition Voltage on HA–Chitosan Coatings on Sandblasted Titanium Alloy Substrates
Gr9 (6)	Himanshu Prajapatia, A.V Ullasa	Preparation and Characterization of Poly (Vinyl Alcohol)-Halloysite Nanotubes Nanocomposite films for Food Packaging
Gr9 (7)	Sumit Kumar, Renu Kumari*	Enhancing Mechanical Integrity and Fretting Wear Performance of Mg Alloy Orthopaedic Implants through Electrophoretically Deposited HA-Al2O3-TiO2 Composite Coating
Gr9 (8)	Kamal Bahadur Yadav, Dr. Renu Kumari*	Microstructural Characterization and Nano-mechanical behavior of HA based composite coating

Gr10: Waste Utilization

Abstract ID	Authors	Abstract title
Gr10 (1)	Pritam Priyadarsana, Prafulla K. Mallik	Microstructure and Electromagnetic Properties of Sintered Blast Furnace Slag
Gr10 (2)	Ranjita Swain, Sunita Routray and Rudra Narayan Mohapatro	Recovery of Light Rare Earth Elements (LREE) from Waste Garnet Minerals along the Eastern Coast of Odisha
Gr10 (3)	Manas Kumar Samantaray, Debasmita Mishra	Characterization of Textile Waste/Glass Fibre Hybrid Composite for Car Body Application
Gr10 (4)	Kashinath Barik, Prafulla Kumar Mallik, Sandeep Kumar Sahoo, Jogendra Majhi, Rabiranjan Murmu, Pramod Kumar Behera	Sustainable Roof Tiles from Fly Ash–Plastic Composites: A Study of Impedance Profiling and Material Optimization
Gr10 (5)	H Sahoo, P K Mallik, K Barik	Electric Modulus and Impedance Properties of Sintered Fly Ash
Gr10 (6)	Nitesh Kumar Bera, Kalipada Maity	Optimization and analysis of iron sludge dewatering using Response Surface Methodology and Machine learning techniques
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