

29thPFAM 2023 - Program Schedule (Venue - Lecture Hall Complex, IIT Tirupati)

06-09-2023 - Day_1 (Wednesday) - Hall - A

07:30-09:00	Registration
09:00-10:30	Inauguration
09:00-09:05	Welcome Address by Conference Chair - Dr. M. Ravi Sankar, IIT Tirupati, India
09:05-09:10	Theme Address by Conference Convenor - Dr. Ajay Kumar, IIT Tirupati, India
09:10-09:15	Address by Prof. K. N. Satyanarayana, Director, IIT Tirupati, India
09:15-09:30	Inaugural Address by Chief Guest 29PFAM 2023 - Shri APVS Prasad, Chief Executive (A), CEMILAC, DRDO, Bangalore, India
09:30-09:40	Special Address by Guest of Honor 29PFAM 2023 - Dr. U. Kamachi Mudali, VC, Homi Bhabha National Institute, Department of Atomic Energy, Mumbai, India
09:40-09:50	Special Address by Guest of Honor & Confrence Co Chair & Founder of PFAM - Prof. T. S. Srivatsan, USA
09:50-10:00	Special Address by Guest of Honor 29PFAM 2023 - Prof. Dr. R K Ray, Former Professor, IIT Kanpur, India
10:00-10:10	Address by Dr. P. Raghothama Rao, Chairman, NDRF, India
10:10-10:20	Vote of Thanks - Dr. Ajay Kumar, IIT Tirupati, India & Dr. S. Seetharamu, Director, NDRF, India
10:20-10:30	Conference Group Photo

Inaugural Tea Break | 10:30-11:00

Parllel Session-1 - Manufacturing Technologies _Hall-A					Parllel Session-2 - Materials and Processing _Hall-B					Parllel Session-3 - Modelling and Simulations _Hall-C					Parllel Session-4 - Semi Conductor Materials Manufacturing _Hall-D				
Session Chair - Shri GAS Murthy & Dr. R Santhanam DRDL Hyderabad					Session Chair - Dr. Shirish S Kale, CEMILAC, DRDO					Session Chair - Dr. M. Sujata CSIR-NAL-Bangalore					Session Chair - Prof. Mohan S, IISc Bangalore				
Time	MOP	ABS ID	ABS Title	Presenter Name	Time	MOP	ABS ID	ABS Title	Presenter Name	Time	MOP	ABS ID	ABS Title	Presenter Name	Time	MOP	ABS ID	ABS Title	Presenter Name
11:00-11:30	KN-1	373	Hot deformation behaviour of exotic alloys: nickel and titanium based alloys	Dr. Raj Kumar P. Singh	11:00-11:30	KN-1	335	Green Technologies Using Microwaves	Shri Pradeep Goyal	11:00-11:20	IL-1	TBC	Computational approaches to development of Engineering Components (Opportunities and Challenges)	Dr. A Venugopal Rao	11:00-11:20	IL_1	399	Semiconductor Materials Manufacturing and Chip Design: Enabling the Digital Revolution	Dr. Balakrishna I
11:30-12:00	KN-2	376	Multiscale Functional Surfaces for Antibiofouling and Bactericidal Properties	Prof. Suhas S. Joshi	11:30-12:00	KN-2	337	AI/ML for the Quantification of Process-Induced Uncertainty in Additively Manufactured Composites	Prof. Kishore Pochiraju	11:20-11:30	OP_4	310	Simulation of 4D printing of a Thermally Sensitive memory material	Harsha Ramachandra Murthy	11:20-11:40	IL_2	410	TBC	Dr. Harsha S
12:00-12:10	OP_1	1	Optimization of WEDM process parameters while machining Inconel 718 using Particle Swarm Optimization	Namadi Vinod Kumar	12:00-12:10	OP_1	3	Corrosion behavior of Nickel modified Zn-27Al alloy	Anusha Raj Kota	11:30-11:40	OP_1	371	Future is Vacuum	Amit Jawade	11:40-12:00	IL_3	387	Growing the Semiconductor manufacturing eco system in India - Imminent Opportunities for Semiconductor grade materials.	Mr. Krishna Moorthy K
12:10-12:20	OP_2	41	Comparison of Mechanical Properties and Effect of Process Parameters on CoCrMo Coupons Sintered by DMLS process and Simulated with ANSYS	Kedar Mallik Mantrala	12:10-12:20	OP_2	5	Synthesis and Characterization of Lanthanum Cerium Oxide for Thermal Barrier Coating Applications	Anant Kumar Gupta	11:40-11:50	OP_2	26	Finite Element Method for Free Vibration Analysis of Rectangular FGM Plate Based on First Order Shear Deformation Theory	Debarupam Gogoi	12:00-12:20	IL_4	379	Nanoscale Devices for Emerging Technologies	Dr. K.L. Ganapathi

12:20-12:30	OP_3	47	Laser-assisted machining of nickel-based super alloys and optimization of cutting force using ANN	Rangilal Bhukya	12:20-12:30	OP_3	8	Physico-chemical and Weibull distribution characterization of Myriostachya Wightiana (MW) stem fiber	Pramod Kumar Parida	11:50-12:00	OP_4	122	Insights into the Tension-Compression Asymmetry in Additively Manufactured Alloys: A Combined Phase Field-Strain Gradient Plasticity Study	Namit Pai	12:20-12:40	IL_5	TBC	TBC	Ms. Chetna Mohan
12:30-12:40	OP_4	380	Negative Poisson Ratio Metamaterial Structure for Wing Morphing	Rajnish Mallick	12:30-12:40	OP_4	13	Numerical modelling and experimental analysis of uniaxial tensile test of fused deposition modelling printed acrylonitrile-butadiene-styrene	Mallikarjuna B										

Plenary Session-5_Hall-A

12:50-13:30	Session Chair - Prof. Satish V. Kailas, IISc-Bangalore																		
12:50-13:30	Light weighting of metal structures by metallurgical means; the avenue of severe plastic deformation - Prof. Laszlo S. Toth																		

Lunch Break - 13:30-14:30

Parellel Session-6 - Manufacturing Technologies_Hall-A					Parellel Session-7 - Materials and Processing_Hall-B					Parellel Session-8 - Manufacturing Technologies_Hall-C					Parellel Session-9 - Materials and Processing_Hall-D				
Session Chair - Prof. Suhas S. Joshi, IIT Indore					Session Chair - Prof. Satyam Suwas, IISc, Bangalore					Session Chair - Prof. Kishore Pochiraju, SIT, USA					Session Chair - Prof. T.S. Srivatsan, University of Akron, USA				
Time	MOP	ABS ID	ABS Title	Presenter Name	Time	MOP	ABS ID	ABS Title	Presenter Name	Time	MOP	ABS ID	ABS Title	Presenter Name	Time	MOP	ABS ID	ABS Title	Presenter Name
14:30-15:00	KN-1	TBC	Manufacturing Challenges for Structural Materials in Nuclear Applications	Dr. Raghendra Tewari	14:30-15:00	KN-1	374	Development and Characterization of Gradient Microstructures	Prof. David P. Field (Rec.)	14:30-15:00	KN-1	TBC	TBC	TBC	14:30-15:00	KN-1	388	What is all the fuss about Additive Manufacturing (AM) and Hybrid Manufacturing? Challenges and Opportunities for the 21 st Century	Prof. Guha Manogharan (Rec.)
15:00-15:30	KN-2	386	Driving Product Innovation: The Transformative Role of 4Ps - Product, Process, People, and Production Challenges	Dr. Naga Hanumaiah	15:00-15:30	KN-2	382	The Good, Bad, and Ugly: Smart Additive Manufacturing Part Qualification with Modeling, Materials Science, Monitoring and Machine Learning	Prof. Prahalada Rao (Rec.)	15:00-15:30	KN-2	TBC	TBC	TBC	15:00-15:30	KN-2	327	An exploration into invigorating role of cryogenic treatment on thermal and mechanical response of magnesium based materials	Prof. Manoj Gupta
15:30-15:40	OP_1	53	Study gas film formation through the current signal in Electrochemical discharge machining (ECDM) with and without a magnetic field.	Monika Singh	15:30-15:40	OP_1	9	Free vibration response of doubly curved FGM shell based on higher-order shear deformation theory	MD Irqam Alam	15:30-15:40	OP_1	73	Influence of welding process parameters on the quality of narrow gap welds	Sudheer Kumar Polamuri	15:30-15:40	OP_1	15	Influence of texture patterns and cryogenic coolant during machining of precipitation-hardened SS	Aniket Roushan
15:40-15:50	OP_2	70	Numerical modelling of machining of titanium alloys under phosphonium-based halogen-free ionic liquid as lubricant additives	Prameet Vats	15:40-15:50	OP_2	12	Investigation into the Shock Attenuation Response of a Hybrid Closed Cell Aluminium Metallic Foam under Shock Loading	Amit Kumar	15:40-15:50	OP_2	84	Fabrication of superhydrophobic aluminum surfaces using sink electrical discharge machining	Kishor Kumar Gajrani	15:40-15:50	OP_2	17	Microstructure Classification of Ultra High Carbon Steel Using Deep Learning Approach	Chandra Mohan Bhuma
15:50-16:00	OP_3	72	Excimer Laser Micro-texturing on Silicon Wafer using Mask Projection Technique	Raj Kumar	15:50-16:00	OP_3	14	X-ray Photoelectron Spectroscopy: An insight into surface analysis	Pragati Chaturvedi	15:50-16:00	OP_3	85	Creep behaviour of optimised heat treated Inconel 939 fabricated by Laser Powder Bed Fusion	Sarath Chandra Reddy Karumudi	15:50-16:00	OP_3	18	Fabrication and characterisation of polymer composites with the help of an enhanced vacuum moulding technique	Bhishm Dewangan

Parellel Session-10 - Manufacturing Technologies _Hall-A					Parellel Session-11 - Materials and Processing _Hall-B					Parellel Session-12 - Modelling and Simulations _Hall-C					Parellel Session-13 - Materials and Processing _Hall-D				
Session Chair - Prof. V R Ganesan, IIT Tirupati					Session Chair - Dr. Ajay M Sidpara, IIT-Kharagpur					Session Chair - Dr. Sheela Siddappa, Kyndryl					Session Chair - Prof. I. A. Palani, IIT-Indore				
Time	MOP	ABS ID	ABS Title	Presenter Name	Time	MOP	ABS ID	ABS Title	Presenter Name	Time	MOP	ABS ID	ABS Title	Presenter Name	Time	MOP	ABS ID	ABS Title	Presenter Name
16:00-16:20	IL-1	TBC	Industrial Automation to Industrial Autonomy (Ia2ia)- Prognosis for MRO Value Proposition	Lt. Gen. Anil Kapoor	16:00-16:20	IL-1	TBC	Constitutively informed particle dynamics: A new paradigm for discrete particle models	Prof. Srikanth Vedantam	16:00-16:10	OP_1	127	Design, Development and Analysis of Additively Manufactured and Assembled XY Compliant Precision Scanning System	Zeba Khan	16:00-16:20	IL-1	340	Common causes of failure in gas turbine engine blades	Dr. M. Sujata
16:20-16:40	IL-2	393	Environmentally Sustainable and CO2 Reduction Products - A Case Study	Prof. Kunigal Shivakumar	16:20-16:30	OP_1	39	Magnetorheological characterization assessment of developed composite magnetic abrasive towards surface finishing	Yogendra Kumar Dwivedi	16:10-16:20	OP_2	133	Crystal Plasticity Model for Cyclic Softening of a Polycrystalline Ni-based Superalloy	Suketa Amrutbhai Chaudhary	16:20-16:40	IL-2	378	Structure and Properties of Squeeze Cast Aluminum Metal Matrix Composites	Dr. T.P.D. Rajan
16:40-16:50	OP_1	95	Effect of deposition rate and deposition speed during the fabrication of iron aluminides with 10 wt. % of Al using GMAW-based TWAAM process	Tirupataiah Kasani	16:30-16:40	OP_2	50	Tribo-Corrosion and Mechanical Properties of Electro-deposited Hybrid Nano-Composite Coating for Under Water Applications	M. Ahmed Nazir Shaikh	16:20-16:30	OP_3	159	Simulation of Incremental Sheet Metal Forming of Titanium Alloy for Producing Complex shapes	Bharat Bhushan	16:40-16:50	OP_1	59	Development of a large shear-induced severe plastic deformation process	Govind Kumar
16:50-17:00	OP_2	98	Experimental Investigation on Metallurgical and Mechanical Properties of ND:YAG Laser Welded Inconel-825 Superalloy	Jaya Kishore S	16:40-16:50	OP_3	52	Experimental investigation to study the effect of cryo-rolling on the Johnson-Cook model parameter of Al6061	Girish Chandra Verma	16:30-16:40	OP_4	166	Development and Evaluation of a Hybrid Agricultural Drone for Precision Farming	Vivekananda N	16:50-17:00	OP_2	60	Influence of acrylate on mechanical and viscoelastic behavior of gel electrolyte	Vishal Agrawal
17:00-17:10	OP_3	112	Design and simulation of additively built acoustic metamaterial for the improvement of acoustic behavior and performance	Prasenjit Sharma	16:50-17:00	OP_4	309	Development of Single Source Precursor Derived ZrB2-SiC-B4C Ultra-High Temperature Ceramics	Vipin Vijay	16:40-16:50	OP_5	167	Optimizing Design of a Vertical Take-Off and Landing (VTOL) Blended Wing Body Aircraft through Modeling and Simulation	Amit S Herkal	17:00-17:10	OP_3	67	Experimental Investigation on MRR in Wire-Edm Machining S31803 Profile Surface with Different Currents	G Narendranath
										16:50-17:00	OP_6	193	Characterization of a 3D printed architected composite for enhanced properties	Prince Shukla					
										17:00-17:10	OP_7	201	Numerical analysis on friction stir processed Nickel 200 alloy plate with Al2O3 reinforcement	Rajnish Mishra					
Tea Break - 17:10-18:00																			
Gala Dinner & Cultural Program (Sitar Symphony & Classical Dance) - 18:30 Onwards at OAT (South Campus, IIT - Tirupati)																			

07-09-2023 - Day_2 (Thursday)

08:00-09:00	Registration
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Plenary Session-14_Hall-A

09:00-09:40	Session Chair - Prof. Mohan S, IISc Bangalore
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09:00-09:40	Biological strategies from natural structures for resilience in manufacturing - Prof. Ajay Malshe (Rec.)
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Tea Break | 09:40-10:00

Parellel Session-15 - Prof. R K Ray Symposium_Hall-A					Parellel Session-16 - Materials and Processing_Hall-B					Parllel Session-17 - Manufacturing Technologies_Hall-C					Parellel Session-18 - Semi Conductor Materials Manufacturing_Hall-D				
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Session Chair - Prof. R K Ray, IIT-Kanpur					Session Chair - Prof. Laszlo S. Toth, Lorraine University France					Session Chair - Dr. D P Mondal, AcSIR - AMPRI, Bhopal					Session Chair - Dr. Naga Hanumaiah, CMTI-Bangalore				
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10:00-10:30	KN_1	356	Microstructural features of Additively Manufactured Metallic Materials: Origin and Consequences	Prof. Satyam Suwas	10:00-10:30	KN_1	404	Influence of ceramic particle reinforcement on Mechanical response and fracture behavior of an aluminum alloy composite for use in performance-driven brake drums	Prof. T.S. Srivatsan	10:00-10:30	KN_1	411	Additive Manufacturing Technologies and Applications for Industrial and Strategic Contexts	Dr. U Chandrasekhar	10:00-10:30	KN_1	365	Advanced Materials & Processes for Semiconductor & Adjacencies	Dr. Gopi Chandran
10:30-11:00	KN-2	375	Structure Integrity and in-Service Material Degradation based Life Cycle Management (LCM) of Aerospace & Defence Platforms-An Integrated Perspective	Dr. Vikas Kumar Saxena	10:30-11:00	KN_2	385	Processing and Fabrication of Advanced Polymer Derived Ceramic Composites using Severe Plastic Deformation Processes	Prof. Satish V. Kailas	10:30-11:00	KN_2	125	Mechanical Behaviour of Additive Manufactured Maraging Steel	Prof. (Mrs.) Santhi Srinivas N C	10:30-10:50	IL_01	339	Clean room for semiconductor manufacturing	Mr. Jayadev. K
11:00-11:30	KN-3	413	Tata Steel's Journey in Advanced Materials	Dr Subrata Mukherjee	11:00-11:10	OP_1	80	Pitting Corrosion Behavior of Nickel Base Superalloy- A Comparative Study in Na2SO4 and Na2SO4: xxNaCl Fluxing Salts.	Nandha K. E.	11:00-11:10	OP_1	116	Design & Modification of Cavity Plate for Injection Mold of Nail Polish Bottle Caps	Anagha Francis V.	10:50-11:10	IL_02	347	Semiconductor nanostructured based gas sensor for affordable healthcare	Dr. Mrinal Pal
11:30-11:50	IL_1	406	Development of MAX-phase Coated Zircaloy fuel tubes as Accident Tolerant Fuel Cladding	Dr. Bikas C Maji	11:10-11:20	OP_2	81	Comparing the effect of texture on strength and ductility of shear deformed and rolled magnesium	Sanika Paranjape	11:10-11:20	OP_2	120	Plasma Electrolytic Polishing Process: Mechanism and Characteristics	Sushil Kumar	11:10-11:30	IL_03	TBC	Nano Photonics Center he established at IIT M -first of its kind in India	Prof. Bijoy Das
					11:20-11:30	OP_3	83	Investigations on the effect of loading rate on the formability of AA 6082	Irfan Khan	11:20-11:30	OP_3	94	Effect of heat treatment on microstructure evolution of laser powder bed fusion processed XH-67 nickel-based superalloy	Nithin Baler	11:30-11:50	IL_04	408	Through-Glass Vias-based 3D Interconnects for Microsystems Packaging	Prof. Pradeep Dixit
					11:30-11:40	OP_4	101	Understanding the texture evolution and deformation behavior under bending and uniaxial tensile creep loading	Naimish Sanjaykumar Shah	11:30-11:40	OP_4	394	Microstructure and Mechanical Behaviour of Ti6Al4V Specimens Fabricated Using Laser Powder Bed Fusion	Jagatheeshkumar S	11:50-12:10	IL_05	TBC	Memory Devices	Prof Anbarasu

Parllel Session-19 - Manufacturing Technologies_Hall-A					Parellel Session-20 - Materials and Processing_Hall-B					Parellel Session-21 - Make in India_Hall-C					Parellel Session-22 - Materials and Processing_Hall-D				
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Session Chair - Dr. Amit Arora, IIT-Gandhinagar					Session Chair - Dr. T.P.D. Rajan CSIR-NIIST, Trivendrum					Session Chairs - Prof. Mohan S, IISc Bangalore & Dr. Nagahanumaiah CMTI Bengaluru					Session Chair - Prof. Srikanth Vedantam, IIT-Madras				
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Time	MOP	ABS ID	ABS Title	Presenter Name	Time	MOP	ABS ID	ABS Title	Presenter Name	Time	MOP	ABS ID	ABS Title	Presenter Name	Time	MOP	ABS ID	ABS Title	Presenter Name
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12:10-12:40	KN_1	35	High Throughput Determination of Creep Behavior of Additively Manufactured Alloys: DIC-Augmented-Bending Creep of LPBF Al Alloys	Prof. Praveen Kumar	12:10-12:30	IL_1	330	Laser Decal Transfer Based Laser μ -3D Printing for Multi-layer Structure	Dr. I. A. Palani	12:10-12:40	IL-1	400	A glimpse into the MEMS Fabrication Facilities at STARC	Dr. Meduri Ravi	12:10-12:30	IL_2	320	Engineering micro-strain localizations in dual phase steels to improve their hole expansion behaviour	Prof. Nagamani Jaya Balila
12:40-13:10	KN_2	401	Role of AI in Manufacturing Industry Over Time	Dr. Sheela Siddappa	12:30-12:50	IL_2	366	Flash sintering of ceramics: From sintering to material development	Dr. Devinder Yadav	12:40-13:10	IL-2	TBC	TBC	Shri Sakaram Srinivasulu	12:30-12:40	OP_1	142	Hydrothermally synthesized TiO ₂ nanostructures for LPG sensing applications	Shanmukha Rao Mutchu
13:10-13:20	OP_1	132	Effect of Process Parameters on Track Geometry and Porosity in Laser Direct Energy Deposition of High Strength Aluminium Alloy	Sai Kumar Balla	12:50-13:00	OP_1	104	Processing effect on the tensile properties of the coir fibre for sustainable composite development	Darshan Dange	13:10-13:40	IL-3	TBC	TBC	CMTI Bangalore	12:40-12:50	OP_2	150	Surface modification of Titanium Alloys with Nanopores to Enhance the Osteoconduction and incorporate antimicrobial properties	Jayashree Sathyanarayanan
13:20-13:30	OP_2	134	Wire Arc Additive Manufacturing of Pelton wheel bucket	Srihari Chitral	13:00-13:10	OP_2	108	Loha Bhasma for Urinary Disorders: A Comprehensive Review of Material Science and Processing Techniques for Enhanced Therapeutic Efficacy of Nano-based Iron Medicine	Anantha Krishna						12:50-13:00	OP_3	151	Surface Modification of Agrowaste Coconut Fibers: Latex Coating	Sumanta Prasad Dewri
13:30-13:40	OP_3	147	Experimental investigation into depositing low melting point alloy utilising fused deposition (FDM) modelling technique	Rishi Parvanda	13:10-13:20	OP_3	109	Impact of chloroform treatment on the mechanical characteristics of PETG, ABS, and PLA materials fabricated via the Fused Deposition Modeling (FDM) Technique	Surjeet Singh Bedi						13:00-13:10	OP_4	155	Mechanical Properties and Characterization of Hybrid Composite Reinforced with Natural Fibers	Arunkumar Bheemanalli
13:40-13:50	OP_4	153	Geometrical inspection of fabricated micro-hole attributes using MagLev micro-EDM	Anand Kumar	13:20-13:30	OP_4	110	Effect of cell wall thickness and heat treatment on overall compressive strength of honeycomb structure made of PETG, PLA and ABS fabricated by FDM technique	Vasu M						13:10-13:20	OP_5	164	Study on rheological behavior of alumina ceramic slurry for Direct Ink Writing process	Gaurav Prakash
13:50-14:00	OP_5	160	Geometric Form Errors in Hollow Cylindrical Parts Manufactured by Powder Bed Fusion	Vamshi Veeraiahgari	13:30-13:40	OP_5	118	Fracture Properties of Additively Manufactured Mar-M 509 Cobalt-based Superalloy	Rohit Kumar Yadav						13:20-13:30	OP_6	183	Tribological and Corrosion Characteristics of a Novel Al-Fe-Cr-Ti alloy processed by Laser Powder Bed Fusion	Vedanth Bhatnagar
14:00-14:10	OP_6	161	Integrating System Engineering into the Design and Development of an Amphibious Surveillance UAV for Aerial and Underwater Missions	Amaranath Shantappa Siddaraddi	13:40-13:50	OP_6	119	Wear and Corrosion Analysis of MoS ₂ /Epoxy Nanocomposite Coating	Pravesh Ravi						13:30-13:40	OP_7	185	Processing and Fracture Resistance of ABS-TPU Multi-Material 3D Printed Parts	Manonmani D
					13:50-14:00	OP_7	121	Effect of Build Orientation and Test temperature on Bending Creep of Additively Manufactured A205 Aluminium Alloy	Anup Shrikrishna Kulkarni						13:40-13:50	OP_8	289	Mechanical and Tribological Property Evaluation of Friction Stir Deposited and Hydroxyapatite Reinforced Surface layers on Ti6Al4V	Jibin Thazhethil Philip

14:00-14:10	OP_8	354	Finite Element Analysis of Stress Distribution in Artificial Bone plate and Fractured Femur Bone	Shivani Gupta
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13:50-14:00	OP_9	55	Interfacial damage detection in fiber metal laminates (FMLs)	Vinay Kumar
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Lunch Break-14:00 - 14:30

Parllel Session-23 - Manufacturing Technologies _Hall-A					Parllel Session-24 - Materials and Processing _Hall-B					Parllel Session-25 - Manufacturing Technologies _Hall-C					Parllel Session-26 - Materials and Processing _Hall-D				
Session Chair - Dr. Mrinal Pal CSIR-CGCRI, Kolkata					Session Chair - Dr. A Venugopal Rao, DMRL, DRDO					Session Chair - Prof. Praveen Kumar, IISc, Bangalore					Session Chair - Dr. Mamilla Ravi Sankar, IIT Tirupati				
Time	MOP	ABS ID	ABS Title	Presenter Name	Time	MOP	ABS ID	ABS Title	Presenter Name	Time	MOP	ABS ID	ABS Title	Presenter Name	Time	MOP	ABS ID	ABS Title	Presenter Name
14:30-14:50	IL_01	405	AM in Aerospace and Defense	Mr Yathiraj Kasal (Rec.)	14:30-14:50	IL_01	37	Advances in Cellular Materials: Its processing and Multifunctional Applications	Dr. D P Mondal	14:30-14:50	IL_01	363	Controlled Directionality in 3D Printing of Reinforced Polymer Composites - A DEM Analysis	Dr. Amit Arora	14:30-14:50	IL_01	412	Fabrication of microneedles for biomedical applications	Dr Ajay M Sidpara
14:50-15:00	OP_1	189	Parametric Optimization and Performance analysis of adhesive bonding of automotive steel	Vishwajeet Kumar	14:50-15:10	IL_02	TBC	TBC	Dr. T Ram Prabhu	14:50-15:00	OP_1	249	Analysis and Optimization of Material Removal Rate, Recast Layer Thickness and Radial Overcut in Electrical Discharge Machining of Magnesium Alloy-ZE41 with	Shrinivas Balraj Uyala	14:50-15:00	OP_1	325	Effect of Plasma sprayed TiO2-15wt% Inconel 718 coatings on salt spray corrosion of on SS304 steel	G. Giridhara
15:00-15:10	OP_2	198	Tool based electrochemical polishing of additively manufactured metallic components	Sri Satya Omkar Dadi	15:10-15:20	OP_1	186	Solution Precursor Plasma Sprayed (SPSS) HAP/Titania Coating for Biomedical Applications - Fretting Damage Analysis	Samiksha Moharana	15:00-15:10	OP_2	290	Maglev Electric Discharge machine (MEDM): Design and development	Vivek Bajpai	15:00-15:10	OP_2	223	Tribological study of surface characterization of basalt fiber with and without surface modification with Silane	Baskara Sethupathi P
15:10-15:20	OP_3	203	Fatigue Performance of Wire Arc Additive Manufactured Aluminum alloy 5356	Senthilvelan Veerasamy	15:20-15:30	OP_2	192	High speed drilling of woven GFRP composites : Optimization of Machining Parametrs	Ashishkumar Chaudhari	15:10-15:20	OP_3	255	Effect of Build Orientation on Mechanical Strengths of Additive Manufactured AISi10Mg Alloy	Vigneshwaran S	15:10-15:20	OP_3	233	Analysis of Fibre Length, Dispersion, and Orientation during Injection Moulding of Short Natural Fibre-Reinforced Biocomposites	Surya Rao Gorrepotu
15:20-15:30	OP_4	214	FDM Parametric Analysis for Determining Compressive and Impact Strength of PEEK using Multicriteria Decision Making	Chinmaya Prasad Padhy	15:30-15:40	OP_3	212	Influence of friction stir processing on microstructure and mechanical properties of as-cast magnesium alloy nanocomposites.	C. A. Niranjan	15:20-15:30	OP_4	259	Evaluation of Conventional Drilling and Helical Milling for Hole Machining in Ti6Al4V Titanium Alloy	Gururaj Bolar	15:20-15:30	OP_4	234	Hydroxyapatite Synthesis From Cuttlefish Bone For Biomedical Application	Mallikarjun B Jalageri
15:30-15:40	OP_5	239	Prediction and Validation of Peak Temperature during FSSW of AA 6063-T6 Aluminium alloy and CRCA/IS-513 Steel alloy using a Consumable Sheet	Sukanta Das	15:40-15:50	OP_4	213	Performance Evaluation of Multi-Cylinder Diesel Engine Fuelled with blends of Methyl Ester of used Vegetable Oil	C. Solaimuthu	15:30-15:40	OP_5	261	Investigations on the laser ablation of sintered silicon carbide ceramic for precision optics applications	Tayaaramma D P V Jalluri	15:30-15:40	OP_5	235	Influence of Processing Conditions on Thermal Insulation Characteristics Of 3D-Printed Thermoplastic Polyurethane	Matcharla Devi Sri Prasad
15:40-15:50	OP_6	93	Optimization of Surface Roughness using Grey Relational Analysis and Response Surface Methodology in Abrasive Waterjet Machining of Stainless Steel 304	Karthik K	15:50-16:00	OP_5	221	Investigation of mechanical properties and tribological performance of Al-B4C Metal Matrix Composites	Balasubramanya H S	15:40-15:50	OP_6	316	Optimization of Selective laser melting process Parameters and corrosion resistance properties of Inconel 625 alloy by using Pareto Anova Technique	Rohith S	15:40-15:50	OP_6	245	Mechanical Properties of Bidirectional Silk Fibre Fabric and Bidirectional Glass Fibre Fabric Reinforced Nanoclay HDPE Hybrid Composites	Shridhar Deshpande

Tea Break and Poster Sessions 16:00-17:30

Banquet Dinner & Musical Fusion Performance - 19:00 Onwards at Hotel Marasa Sarovar Premiere, Tirupati - Assembling point for Banquet dinner is PFAM 2023 Lecture Hall Complex (Assembling Time: 18:00)

08-09-2023 - Day_3 (Friday)

Plenary Session-27_Hall-A

09:00-09:40 Session Chair - Lt. Gen. Anil Kapoor, IIT Tirupati

09:00-09:40 Digitalization of Manufacturing Enterprise System: Smart Manufacturing Innovation - Prof. Sudarsan Rachuri (Rec.)

Parallel Session-28 - Manufacturing Technologies _Hall-A					Parallel Session-29 - Materials and Processing _Hall-B					Parallel Session-30 - Modelling and Simulations _Hall-C					Parallel Session-31 - Materials and Processing _Hall-D				
Session Chair - Dr. T Ram Prabhu, RCMA (F&F), CEMILAC, DRDO					Session Chair - Dr. D V Kiran, IIT-Tirupati					Session Chair - Prof. (Mrs) Santhi Srinivas N C, IIT (BHU)					Session Chair - Dr. N. Venkaiiah, IIT-Tirupati				
Time	MOP	ABS ID	ABS Title	Presenter Name	Time	MOP	ABS ID	ABS Title	Presenter Name	Time	MOP	ABS ID	ABS Title	Presenter Name	Time	MOP	ABS ID	ABS Title	Presenter Name
09:40-10:00	IL_1	383	Artificial Intelligence & Machine Learning – Introduction & Applications in PFAM	Dr. Sri Vallabha Deevi	09:40-10:00	IL-2	361	Hybrid Metal Additive Manufacturing	Prof. N Venkata Reddy (Rec.)	09:40-09:50	OP_1	238	Architected polymer insulation coating design for traction motor bearings - Numerical simulations	Balakrishna G V	09:40-09:50	OP_1	277	Improvement of Mechanical Properties in Al7075 Metal Matrix Composites with SiC Nano-Particle Inclusions	Mahesh G S
10:00-10:10	OP_1	265	Selective Laser Melting of Al2O3-EIP Composite: Single Track Study	Sumitkumar Rathor	10:00-10:10	OP_1	263	Investigation of Microstructural Influence and Synergistic effect of Zinc and Magnisium Nanoparticles on Mechanical Propeties of Al6303-T6	Podugu Naga B. Ravi Kumar	09:50-10:00	OP_2	244	Artificial Womb Technology: Addressing Philosophical Challenges and Ethical Implications through Machine Learning Analysis	Peddabuddi Uma Devi	09:50-10:00	OP_2	279	SmartEx QD-100 based SLS-mediated Immediate release tablet: Sintering, Characterization and Novel material finding for selective laser sintering	Tukaram Ram Karanwad
10:10-10:20	OP_2	266	Hybrid machining of nanoparticle-reinforced fused silica-based composites	Rajat Jain	10:10-10:20	OP_2	270	Nature Inspired Shape Shifting Soft Magnetic Materials: Inspiration, Fabrication, mechanism, and Application	Dharmi Chand	10:00-10:10	OP_3	250	Investigational Study on Mechanical Behaviour of Mathematical model on Atomic scale of Aluminum and Magnesium alloys	Sudhakar Choudary Pamidimukk ala	10:00-10:10	OP_3	282	Impact of ageing treatment on microstructural evolution and tensile behavior of alloy 625	Sonika Chahar
10:20-10:30	OP_3	271	Effect of Interlayer Copper Micropowder Addition On the Mechanical As Well As Metallurgical Properties Of Wire Arc Additively Manufactured Ferritic Steel	Adarsh Prakash	10:20-10:30	OP_3	275	Experimental and numerical investigation of laser wire-directed energy deposition of SS 308L	Sanasam Sunderlal Singh	10:10-10:20	OP_4	274	Thermomechanical finite element based simulation of micro-EDM	Rajiv Kumar	10:10-10:20	OP_4	292	Direct Ink Writing-based 3D Printing of Graphene Electrodes	Poonam Sundriyal
10:30-10:40	OP_4	414	ZEISS Solutions for Electronics and Electronics component manufacturing	Manoj K Sundaram	10:30-10:40	OP_4	16	Influence of tool rotational speed on the mechanical properties of friction stir spot welded AA5052-H32/PU-foam/AA5052-H32 sandwich sheets	Divya Sachan	10:20-10:30	OP_5	66	Probing the influence of waveforms on the submerged arc weld characteristics and residual stress distribution	Adapa Mahanth Kumar	10:20-10:30	OP_5	299	Underwater Laser Bending of Stainless Steel sheet	Ramsingh Yadav
10:30-10:40	OP_5	415	Confront challenges of materials research with state-of-the-art in situ microscopy solution from Zeiss	Aloysius Daniel	10:40-10:50	OP_5	36	Effect of PTFE on the Mechanical and Tribological Properties of ABS and HDPE-Based Hybrid Nano Composite	Padmini B V	10:30-10:40	OP_6	115	Microstructure and Non-Destructive Evaluation of Aluminium 6009 Alloy Sheets Joined by Friction Stir Welding	Subhrajyoti Saroj	10:30-10:40	OP_6	312	Investigation on Tribo-Mechanical Behavior of Areca fiber reinforced Alumina filled Epoxy composites	N.Mohan
										10:40-10:50	OP_7	124	Estimation of Heat Affected Zone in the Laser Surface Modification of Single-Crystal Nickel based Superalloy by using a 3D Transient Heat Transfer Modelling	Srinivasa Rao Nandam	10:40-10:50	OP_7	107	Investigation of Residual Stress and Elastic Parameters Affected due to Variations in Manganese Content and Cast Section Size in Wear Resistant High Chromium Irons	T Pramod

Tea Break 10:50-11:10

Parllel Session-32 - Manufacturing Technologies _Hall-A					Parllel Session-33 - Manufacturing Technologies _Hall-B					Parllel Session-34 - Manufacturing Technologies _Hall-C					Parllel Session-35 - Materials and Processing _Hall-D				
Session Chair - Dr. Nagendra Singh, Eagle Robot Lab, Bangalore					Session Chair - Lt. Gen. Anil Kapoor, IIT-Tirupati					Session Chair - Dr. S. Seetharamu, NDRF Bangalore					Session Chair - Prof. Manoj Gupta, NUS, Singapore				
Time	MOP	ABS ID	ABS Title	Presenter Name	Time	MOP	ABS ID	ABS Title	Presenter Name	Time	MOP	ABS ID	ABS Title	Presenter Name	Time	MOP	ABS ID	ABS Title	Presenter Name
11:10-11:20	OP_1	272	Controlled texturing on Silicon carbide dispersed Aluminium matrix composite using ultrashort pulse laser irradiation for tribological enhancement	Shalini Singh	11:10-11:30	IL_1	377	Challenges & opportunities in Missiles & Aerospace business	Shri Laxmesh Hasanabadi	11:10-11:30	IL_01	TBC	TBC	Prof. B. V Manoj Kumar	11:10-11:20	OP_1	351	Key-hole Plasma Arc Welding of high thickness Titanium using modified Single V Groove Joint	Uday Parmar
11:20-11:30	OP_2	276	A comprehensive study of high quality film cooling holes, machined on IN718 by using a femtosecond laser trepan drilling techique	Sunil Kumar	11:30-11:40	OP_1	398	Effect of Rice husk and EPS on thermal performance of light weight insulation filled 3D printed solid slabs	Biranchi Panda	11:30-11:40	OP_1	353	Dynamics and Load Analysis of Micro Hydraulic Actuator Controlled through Multiple Micro Pumps	Thirupathi Rengasamy	11:20-11:30	OP_2	137	Processing and Characterisation of Medical implant by Surfacedmodification	Harish Ramanathan Babu
11:30-11:40	OP_3	283	Analysis of hole quality of Copper oxide nanostructured CFRP composite	Abhipsa Kar	11:40-11:50	OP_2	172	Spark plasma sintered SiC-ZrN composites for high temperature sliding wear resistance applications	Surya Prakasrao Chodiseti	11:40-11:50	OP_2	369	Temperature and Fluid Velocity Field Estimation in Melt-Pool using Multiphysics Based Numerical Simulation for Multi-track Selective Laser	Rakesh Kumar	11:30-11:40	OP_3	359	Anti-fungal Activity of Redox Metal-Organic Frameworks (R-MOFs) through synergistic release of Sodium Lignosulphonate	Chinmaya Mahapatra
11:40-12:00	OP_4	285	State of the art on additive manufacturing of moulding dies with conformal cooling channels	Nisar Ahamad Khan	11:50-12:00	OP_3	175	Characterisation of Functionally Graded Ni Based EWAC-TiB2 Cladding on Maraging Steel Using Microwaves	Nikita Rai	11:50-12:00	OP_3	179	Effect of Process Parameters on Mechanical Performances of 3D Printed ABS Parts	Dipayan Chakraborty	11:40-12:00	OP_4	360	Transient stealth coating of liver scavenger sinusoidal wall enables retargeting of nanomedicines	Anjaneyulu Dirisala
12:00-12:10	OP_5	287	Analysis of Plasma Channel and its Effects	Kishalay Roy	12:00-12:10	OP_4	176	Investigation on multi-tool machining of Ag using T ₁ -EDM process	Aruna Kotlapati	12:00-12:10	OP_4	180	Additively Manufactured Ceramic Lattice Structures: Fabrication, Challenges, and Applications	Shikher Verma	12:00-12:10	OP_5	362	Solidification behavior and microstructure evolution of Al-12.5wt%Si-(TiB ₂ +Al ₂ O ₃) hybrid composite	Pradeep Kumar Jha
12:10-12:20	OP_6	288	Machinability of Ti6Al4V in High Speed Micro Turning Under Dry Condition	Prince Anand	12:10-12:20	OP_5	177	Analysis of machining characteristics using silica mixed dielectric in MagLev EDM	Rajesh Sahoo	12:10-12:20	OP_5	256	Investigation on Machining Performance During Ultrasonic Vibration Assisted Turning of Magnesium AZ31B Alloy	Neeraj Deswal	12:10-12:20	OP_6	367	Design & static analysis of Connecting Rod of a petrol engine using FEA	Anand Raj Singh
12:20-12:30	OP_7	296	Performance Evaluation on Electrical Discharge Machining of Commercially Pure Titanium Using two Different Dielectrics	Dhanush Karthik Manogaran	12:20-12:30	OP_6	178	Evaluation of machining performances of Inconel X-750 in the electrical discharge machining process using CoCoSo method	Sameer Kumar Anand	12:20-12:30	OP_9	300	Laser Transmission Welding of Polycarbonate Sheets Using Dry Graphite Absorber	Dhruva Kumar Goyal	12:20-12:30	OP_7	370	In-situ dispersion of electrospun nanofibers in PDMS for fabrication of high strength, transparent nanocomposites	Prasoon Kumar
12:30-12:40	OP_8	298	Microstructure and Mechanical Properties of Non equiatomic CoCrNi alloy Fabricated by Wire Arc Additive Manufacturing	G. Dan Sathiaraj											12:30-12:40	OP_8	194	Fabrication of Delonix Regia based Natural Fiber Reinforced Polymer Composites	Arulprasanna Adishesan
12:40-12:50	OP_9	131	Micro channel fabrication by additive and subtractive methods	Bhavani Tharra											12:40-12:50	OP_9	211	Influence of Hybrid reinforcement on Microstructure and Mechanical properties of Magnesium alloy Nanocomposites: A Study	Siddaraju C

Lunch-13:00-14:00

Parallel Session-36 - Modelling and Simulations _Hall-A					Parallel Session-37 - ASM International Materials and Processing _Hall-B					Parallel Session-38 - Materials and Processing _Hall-C					TIFAC - Panel Discussion on advanced Material and Manufacturing Technologies for Application in Defence Sector _Hall-A
Session Chair - Dr. Anup Basak IIT Tirupati					Session Chair - Shri Babu Sathian V, ASM Bangalore					Session Chair - Dr. Mamilla Ravi Sankar, IIT Tirupati					15:00-17:00_Panelists
Time	MOP	ABS ID	ABS Title	Presenter Name	Time	MOP	ABS ID	ABS Title	Presenter Name	Time	MOP	ABS ID	ABS Title	Presenter Name	
14:00-14:10	OP_1	202	Numerical and experimental study on the effect of tool pin profile of friction stir additive manufactured AA6061/AA7075 joints.	Kishor Kumar Jha	14:00-14:10	OP_1	318	Surface Analysis of Inconel Alloy Machined by μ -EDM with Nano Powder Blended Dielectric	Bhargab Madhab Barua	14:00-14:10	OP_1	333	Microstructure and Mechanical Properties of Ni-Al-Co-Cr-Fe-Ti-Ta-Mo-W based high entropy Superalloy	Piyush Kumar	
14:10-14:20	OP_2	218	Stress and Vibration behaviour of 4 bladed composite marine Propeller	D. Harsha Vardhan	14:10-14:20	OP_2	321	Optimization of machining variables during nano powder mixed μ -EDM of NiTi Shape Memory Alloy	Souradeep Dutta	14:10-14:20	OP_2	341	Micromachining of NiTi SMA composite bimorph for smart actuators using a CO2 laser	Kaushal Gangwar	
14:20-14:30	OP_3	224	Forming Analysis of Metal-Polymer-Metal Sandwich Sheets	P. Praveen Kumar Reddy	14:20-14:30	OP_3	322	Study of Various Flank Surface Textured Coated Carbide and Ceramic Tools and their effect on the Performance Parameters during Machining of hardened H13 Steel	Arunabh Choudhury	14:20-14:30	OP_3	344	Does the atomic order hinder the diffusion in multicomponent intermetallics?	Mohan Muralikrishna Garlapati	
14:30-14:40	OP_4	48	A Novel Antenna Material for High-Performance 5G Wireless Networks	M. Amina Begum	14:30-14:40	OP_4	326	A Novel approach to weld flow analysis of electric resistance welded (ERW) Tubes: Significance and implications	Aravind P	14:30-14:40	OP_4	348	Lubricant Wetting Transitions And Scuffing In Nano-Micro Topographies	Vimal Edachery	
14:40-14:50	OP_5	280	Multiphase phase-field study of grain boundary-induced martensitic phase transformations for cubic to orthorhombic transformations	Newton	14:40-14:50	OP_5	328	The Effect of Heat Treatment and Squeeze Casting on the Microstructure and Creep Behavior of Die cast AZ91 Magnesium Alloy	Hitesh D. Patil	14:40-14:50	OP_5	43	Effect of Severe Plastic Deformation Involving ECAP of Aluminum 2024 alloy Beryl Composites on the Mechanical Properties	Sagar K G	

16:30 to 18:00 - Valedictory, Award Ceremony & Cultural Program followed by High Tea at Hall - A