

**2nd International Conference on Recent Trends in Metallurgy, Materials Science
and Manufacturing**

Venue: National Institute of Technology, Tiruchirappalli

Registration starts at 08.00 AM

Hall: EEE Auditorium

Faculty in charge: Dr D Nagarajan

2nd International Conference on Recent Trends in Metallurgy, Materials Science and Manufacturing

Inauguration

Hall: EEE

Auditorium

09.00 AM – Invocation

09.05 AM – Welcome address

09.10 AM – Lighting of Kuthuvilakku

09.20 AM – About the conference

09.30 AM – Presidential address

09.45 AM – Address by The Chief Guest

10.00 AM – Address by The Guest of Honour

10.20 AM – Vote of Thanks

10.30 AM – National Anthem

Programme Schedule

Day I – 27.12.2019 (Friday)

09.00 AM to 10.30 AM – Inauguration

10.30 AM to 11.00 AM – High Tea

11.00 AM to 11.45 AM – Prof. Hari Nadendla, Brunel Centre for Advanced Solidification Technology
Institute of Materials and Manufacturing, Liquid Metal Engineering, Brunel University, London

11.45 AM to 12.30 PM – Prof. Evgeny Parfenov, Professor, Ufa State Aviation Technical University, Ufa 450008,

12.30 PM to 01.15 PM – Prof. K.G. Prashanth, Additive Manufacturing, School of Engineering,
Department of Mechanical and Industrial Engineering, Tallinn University of Technology, Estonia

01.15 PM to 02.15 PM – Lunch

02.15 PM to 03.00 PM – Prof. Sang-Myung Cho, Department of Materials System Engineering,
Pukyong National University, Busan, South Korea

03.00 PM to 04.00 PM – Contributory papers Session I A to I F

04.00 PM to 04.15 PM – Tea

04.15 PM to 05.15 PM - Contributory papers Session II A to II D

03.00 PM to 05.15 PM – Poster session

Day II – 28.12.2019 (Saturday)

09.00 AM to 09.45 AM - Dr. Khalid Rafi .H, Lead Engineer, Additive Manufacturing Program Development,
ASTM INTERNATIONAL, Singapore

09.45 AM to 10.30 AM - Prof. Amaro Olimpio Pereira Junior, Universidade Federal Do Rio De Janeiro, Brazil

10.30 AM to 11.15 AM – Mr. Ramesh Babu Govindaraj, DNV GL-Maritime, Høvik, Norway.

11.15 AM – 11.30 AM - Tea

11.30 AM to 12.30 PM – Contributory papers Session III A to III F

12.30 PM – 01.30 PM - Contributory papers Session IV A to IV D

01.30 PM – 02.30 PM – Lunch

02.30 PM – 03.30 PM - Contributory papers Session V A to V E

03.30 PM – 04.30 PM – Valedictory function

04.30 PM – 05.30 PM – Tea

Poster – 11.30 AM – 03.30 PM

03.00 PM to 05.15 PM – Poster session

Poster	Abstract ID	Authors	Title
1	5	S Ramakrishnan, V Senthil Kumar and D Lenin Singaravelu	Modelling and optimization on AWJM parameters for improved surface characterization
2	10	Development of Efficient Short / Continuous Fiber Thermoplastic Composite Automobile Suspension Upper Control Arm	Anandakumar Paramasivam, Venkata Timmaraju Mallina and Velmurugan Ramachandran
3	13	Effect of wire feed rate on morphology and microstructure development during bead on plate welding of Ti-Nb microalloyed hot rolled 800 MPa steel with ER70S-6 filler wire using P-GMAW	Merbin John, Ashok Kumar P and Udaya Bhat K
4	14	Effect of BaSrCo ₂ Fe ₁₂ O ₂₂ loading in PP matrix on the magnetic, dielectric and thermal properties	Navaneeth Krishnan K, Anagha M G and Murali K P
5	16	Experimental Study and Taguchi optimization of Process Parameter on Mechanical properties of A319 Aluminum Alloy using Friction Stir Welding	Marichamy M and Babu S
6	95	Influence of Graphene Oxide on the Morphological and Mechanical Behaviour of Compatibilized Low Density Polyethylene Nanocomposites	Mahesh Kumar K V, Krishnamurthy K, Kaushik Pal, Sathish Kumar P, Gobinath V K, Sachinbala R and Rajasekar R
7	96	Blast Furnace Optimization via Integrated Mathematical Model to Predict Insight Process Parameters and Carbon Rate	Venkatesan J, Mrunmaya K P, Ubayadullah Mohammed, Suresh Voonna, Naveen Singh, Rameshwar Sah, Manjini S and Srinivas Rao
8	98	Degin and Development of Online Tool Condition Monitoring system for Milling process using very near field Microflown Acoustic Emission sensor	Manivannan R, Rajasekar R, Moganapriya C, Varun Kumar G C, Karthik V and Mohanraj T

9	108	“Do Piezoelectric and Piezomagnetic sensors like, BaTio ₂ , CoMnF ₂ , CoF ₂ facilitate propagation of Electromagnetic signals induced due to Stress within subsurface of crust and hence display pre-seismic signature ?”	Umesh Verma
10	110	Effect of Fiber Content on Mechanical & Morphological Properties of Bamboo Fiber Reinforced LLDPE Processed by Rotational Moulding	Abhilash Ss and D Lenin Singaravelu
11	112	Optimization of Process Parameters on Surface Roughness during Drilling of GFRP Composites using Taguchi technique	K.Siva Prasad and G. Chaitanya
12	144	Development of patient specific bio-polymer incisor teeth by 3D printing process: a case study	Arun M, Sathishkumar N, Nithesh Kumar K, Ajai S.S and Aswin S
13	152	Physical and Mechanical Properties of Flax Fiber and its composites: A Review	Parul Singh and Y. G. Bala
14	154	Multi-response optimization of the Thermal properties of Bio fluids using Taguchi-Grey Analysis	Immanual R, Kannan K, Paul Vinofer A, Varadha E and Chokkalingam B
15	160	Effect of heat source temperature for optimizing the electrical array configuration of the TEG system	Selvaraj Pitchaikani, Duraiselvam Muthukannan and Karthick Krishnadass
16	165	A Review on Usage of High Chrome White Cast Irons in South Africa	Fc Nyokong and Xiaowei Pan
17	167	Synthesis Of Nanoscale 4-Nitroaniline-Polystyrene Fiber For Optical Limiting Application Using Electrospinning Technique	C Yogeswari, Km Hijas, Tc Sabari Girisun and R Nagalakshmi
18	172	Study the Effect of Fiber Orientation on Mechanical Properties of Bidirectional Basalt Fiber Reinforced Epoxy Composites	Nitish Kumar and Abhishek Singh

19	199	Effect of age hardening in insitu Alx-Ni and Alx – Fe reinforced AluminiumMetal Matrix Composites	Abuthakir J, Subramanian T, Kavitha M, Satishkumar T, Venkatesh G and Manikandan P
20	200	Heat Treatment and Analysis of Nickel super alloy for Gas turbine Applications	Ashwin Prabhu G, Sathishkumar N, Pravinkumar K, Manoj Kumar P and Sudharsan P.L
21	201	Performance Analysis of Silicon Nitride as Efficient Membrane Material for MEMS Ultrasonic Transducers	Dr. Reshmi Maity and Dr. Niladri Pratap Maity
22	202	Time-Temperature-Cure Process Window of Epoxy-Vinyl Ester Resin for Applications in Liquid Composite Moulding Processes	Raghu Raja Pandiyan Kuppusamy, Anita Zade and Kaushik Kumar
23	211	TG and DSC analysis of Equi-Channel Angular Processed redmud particle reinforced 5083 aluminum alloy matrix composites synthesized by stir casting	Brahmananda Reddy Sathi, Swami Naidu Gurugubelli and Hari Babu N
24	215	Experimental Investigation on the Performance Enhancement of Single Basin Double Slope Solar Still using Kanchey Marbles as Sensible Heat Storage Materials	Muthu Saravanan N, Rajakumar S and Arul Marcel Moshi A
25	221	Phase transition studies using X-ray diffraction and Electron diffraction in Al ₂ O ₃ -ZrO ₂ -La ₂ O ₃ ceramics	Venkatesh G, Subramanian R, John Berchmans L, Abuthakir J, Ramesh Aravind R and Prabhakar K G
26	224	Effect of temperature and load during the hot impression creep of Cu-Zn alloy	Ayyalasomayajula Sai Deepak Kumar, Mohammad Fayaz Anwar, Esari Vara Prasad, Pedada Bharath Sreevatsava and Vanitha C
27	241	Review on the electrical conductivity of nanofluids: Recent developments	Ganesh Kumar P, Sakthivadivel D and Velraj R
28	246	Wear Behaviour of Duplex Stainless Steels Sintered and Forged under Partial Vacuum Atmosphere	Rajkumar C, Udhaya Prakash J, Mariappan R and Sarala Rubi C
29	43	Molecular dynamics simulation study of compression behavior of Al-Cu ₅₀ Zr ₅₀ nano-laminates at different temperatures	Pradeep Gupta, Karthik Vaduganathan and Natraj Yedla

30	78	Influence of Post weld heat treatments (PWHTs) on Laser beam welded Al-3Mg-0.25Sc alloy sheets	Venkateswarlu Karodi and Kaustav Barat
31	87	Effects of sintering temperature on Grain growth of NiTiCu shape memory alloy	Velmurugan C, Senthilkumar V, Kesavan J and Ramya K
32	91	Effect of External Strengthening on the Flexural Capacity of Cold-formed Steel Beams	M. Anbarasu, A.R. Dar and Mohammad Adil Dar
33	93	Modeling of sintering phenomena in laser based additive manufacturing: Phase field and molecular dynamics study	Jyotirmoy Nandy and Seshadev Sahoo
34	178	A study on fabrication of Al 5059/ SiC composite component via a novel route of friction stir additive manufacturing	Manu Srivastava and Sandeep Rathee
35	189	Numerical Simulations of Industrial Coke Oven using Decoupling Techniques	Sachin Beejawat, Manendra Singh Parihar, Karundev P, Rajan Kumar and Venkataramana Runkana
36	99	Process Parametric Optimization in Drilling of CFRP Composites using GRA Method	Tarakeswar Barik, Sourav Kumar Jena, Shivraj Gahir, Kamal Pal and Sanat Kumar Pattnaik

Each presentation is for 08 mins and discussion for 2 mins.

DAY -1			
RESEARCH AREA: CASTING			
SESSION CODE: I-A		HALL :	
TIME: 3.00 PM – 4.00 PM			
CHAIRMAN / VOLUNTEERS			
S.NO.	ABSTRACT ID	PAPER TITLE AND AUTHORS	
1	12	Design aspects of copper mold tubes for steel continuous casting <i>Koushik Ray and Indrajit Basak</i>	
2	191	Modifying the surface characteristics of stir casted LM25 Aluminium alloy reinforced with 5%SiC particulates metal matrix composites by friction stir processing <i>Pattusamy Vijayavel and Ilamurugan Rajkumar</i>	
3	183	Effect of Interlayers on mechanical and metallurgical properties of Aluminium Casting over Stainless Steel pipe for heat exchanger applications <i>Raja V, Kavitha M, Chokkalingam B and Ashraya T S</i>	
4	114	Microstructural studies on aluminium metal matrix composite (Al7075-SiC) fabricated through stir casting process <i>Mr.Swapnil Gosavi and Dr. Maheshwar Jaybhaye</i>	
5	168	A combination approach to optimize the properties of green sand used in casted mould <i>M. Shilpa, G S Prakash and M R Shivakumar</i>	
6	258	Microstructural , Mechanical and Tribological behaviour of gravity and squeeze cast novel Al alloys <i>Srinivas Chandra, B Blessto, K Sivaprasad</i>	

Each presentation is for 08 mins and discussion for 2 mins

DAY -1		
RESEARCH AREA: NON-FERROUS MATERIALS		
SESSION CODE: I-B		HALL :
TIME: 3.00 PM – 4.00 PM		
CHAIRMAN / VOLUNTEERS		
S.NO.	ABSTRACT ID	PAPER TITLE AND AUTHORS
1	29	Effect of methods of quenching on transformation characteristics and microstructure of an NiTiCu shape memory alloy <i>Sampath Vedamanickam, Srinithi Rajendran, Santosh Sampath, Panchami Padmasana Sarangi and Sherin Fathima Jawahar Ali</i>
2	51	Investigation of structural, morphological and electrochemical properties of mesoporous La₂CuCoO₆ rods fabricated by facile hydrothermal route <i>Jashandeep singh and Ashok kumar</i>
3	56	Design, analysis and Experimental validation of Inconel – 625 bellows for nuclear applications <i>S C S P Kumar Krovvidi, Sunil Goyal and A K Bhaduri</i>
4	150	Influence of pulse frequency on the morphological and corrosion characteristics of the plasma electrolytic oxidized ZM21 magnesium alloy <i>Hariprasad Sampatirao, Arjun Varma, Saikiran Amruthaluru, Arun Sukumaran, Evgeny Parfenov and Rameshbabu Nagumothu</i>
5	190	Enhancement on microstructure, mechanical properties of Mg-6Zn due to the addition of Copper <i>Rajagopal Ram kumar, A Manohar Ramesh Babu, S Reno Antony, G Rooban Balaji, T Surendhar and P Suriya</i>
6	143	Structural and magnetic properties of Ba and Sn co-substituted BiFeO₃ <i>Dr B Sattibabu, T Durgarao, A K Bhatangar, V Satyanarayana Murthy, J Arout Chelvane and S Rayprol</i>

Each presentation is for 08 mins and discussion for 2 mins

DAY -1			
RESEARCH AREA: PLASTIC DEFFORMATION			
SESSION CODE: IC		HALL :	
TIME: 3.00 PM – 4.00 PM			
CHAIRMAN / VOLUNTEERS			
S.NO.	ABSTRACT ID	PAPER TITLE AND AUTHORS	
1	36	Influence of strain rate and percentage cold work on room temperature deformation behaviour of AISI 1015 carbon steel <i>Dr. Sivasankaran subbarayan and Dr Fahad A. Al-Mufadi</i>	
2	115	Comparision of prediction model for the hot deformation behaviour of cast Mg-Zn-Y Alloy <i>Neethu N, Nahil Ahmed Hassan, Ravi Ranjan kumar, Chakravarthy P, A Srinivasan and A Muhammed Rijas</i>	
3	137	Prediction of creep deformation and damage behaviour of 316LN Austenitic Stainless Steel under uniaxial and Multiaxial stress state using Kachanov-Robotnov model at 923K <i>C Praveen, J Christopher, V Ganesan, G V Prasad Reddy and Shaju K Albert</i>	
4	225	Prediction and forming force in incremental forming of Ti-6Al-4V alloy material <i>C Veera Ajay</i>	
5	226	Modeling of Cylindrical upsetting process for enhanced ductile fracture <i>Hari Krishna Chirala and Nagaraju Cherukuri</i>	
6	75	Metallurgical properties of glass/Carbon inter-ply hybrid polymer composites at different in service temperatures <i>Srinivasu Dasari, Sushant Saurabh, Kishore Kumar Mahato, Rajesh kumar Prusty and Bankim Chandra Ray</i>	

Each presentation is for 08 mins and discussion for 2 mins

DAY -1			
RESEARCH AREA: COMPOSITES			
SESSION CODE: ID		HALL :	
TIME: 3.00 PM – 4.00 PM			
CHAIRMAN / VOLUNTEERS			
S.NO.	ABSTRACT ID	PAPER TITLE AND AUTHORS	
1	52	Influence of Si content on the mechanical and wear behavior of Al-xSi-0.4Mg - 10Fly ash metal matrix composite <i>Balasubramaniam C, Akhil Santhosh, Aadarsh Babu, Abhijith V K, Midhun M, Karthik V Shankar and Hari Narayanan</i>	
2	61	Ultrasonic Welding of GF/PA6T Composites : Experimental Investigation and Process Optimization <i>R Kalyan Kumar and M Omkumar</i>	
3	65	Superior Slurry Erosion Resistance of Microwave Derived Bimodal Composite Cladding <i>Abhishek Babu, Rakesh B Nair, Jose Dominic, Harpreet Singh Arora and Harpreet Singh Grewal</i>	
4	171	Fabrication and Mechanical Characterization of Al 7050/ Tio2/ BN hybrid metal matrix composites <i>Srivalli Rani and Venkateswara Rao</i>	
5	188	Impact Damage Resistance of Jute/Kevlar Hybrid Composite Laminates Subjected to Varying Heights: An Experimental Approach <i>Bhanu Pratap</i>	
6	102	Studies on mechanical and dynamic mechanical properties of Banana fiber nonwoven composite <i>T. Murugan and Dr.B.Senthil Kumar</i>	

Each presentation is for 08 mins and discussion for 2 mins

DAY -1		
RESEARCH AREA: NANOMATERIALS		
SESSION CODE: IE		HALL :
TIME: 3.00 PM – 4.00 PM		
CHAIRMAN / VOLUNTEERS		
S.NO.	ABSTRACT ID	PAPER TITLE AND AUTHORS
1	57	Cd free Sulphurated 1D-TiO₂ nanorods for heterojunction solar cells <i>S Varadharajaperumal, D Alagarasan, M.L Pradeep Kumar, Gopalkrishna Hegde and M.N Satyanarayan</i>
2	70	Comparative Study of Doped-TiO₂ Nanocrystals prepared by Sol-gel and Solvothermal Approaches <i>Katta Venkata Krishnamurthy and Raghvendra S Dubey</i>
3	116	Surface enhanced Raman studies of heat-treated Silver Nanowire films <i>Marrapu Haribabu, Soma Venugopal Rao and Gopala Krishna Podagatlapalli</i>
4	212	SYNTHESIS OF Al₅₀Fe₃ NANO COMPOSITE THROUGH MECHANICAL ALLOYING AND CONSOLIDATION BY EQUAL CHANNEL ANGULAR PRESSING <i>Chandra Sekhar Kondaveeti, Ravisankar B and Kumaran S</i>
5	25	Synthesis, structure, and mechanical behaviour of Cr_{0.21}Fe_{0.20}Al_{0.41}Cu_{0.18} and Cr_{0.14}Fe_{0.13}Al_{0.26}Cu_{0.11}Si_{0.25}Zn_{0.11} medium and high entropy nanocrystallite alloys processed by mechanical alloying <i>Mr. Yaser A. Alshataif, Dr. Subbarayan Sivasankaran, Dr. Fahad A. Al-Mufadi, Dr. Hany Risk Ammar and Dr. Abdulaziz S. Alaboodi</i>
6	126	Characterization of MgNiTiMnAlCr High Entropy Alloy through Powder Metallurgy Route <i>R Yogeswaran, N Mythraeyan, S Sri Vatsa Madavan, Gk Vignesh, T Vaithiya Nathar, A Vishnu Vikesh and V Saran Raja</i>

Each presentation is for 08 mins and discussion for 2 mins

DAY -1			
RESEARCH AREA: SURFACE MODIFICATION			
SESSION CODE: IF		HALL :	
TIME: 3.00 PM – 4.00 PM			
S.NO.	ABSTRACT ID	PAPER TITLE AND AUTHORS	
1	129	Surface Modification of Aluminium 7075 by Electrical Discharge Alloying and influence of Surface Roughness using RSM <i>Haja Maideen Abdul Ajees, Duraiselvam Muthukannan and Varatharajulu M</i>	
2	157	EFFECT OF CERAMIC COATING ON PERFORMANCE, EMISSION AND COMBUSTION CHARACTERISTICS OF ETHANOL DI DIESEL ENGINE <i>Balu Pandian, Saravanan Paranthaman and Jayaselan Vadivel</i>	
3	205	Plasma-sprayed graphene oxide reinforced alumina composite coatings on low carbon steel with improved fracture toughness, brittleness index and microhardness <i>Amudha A, Nagaraja H S and Shashikala H D</i>	
4	235	Influence of molybdenum particle on multi-pass friction stir processing of AA5083- A study on microstructure and mechanical properties <i>Pradeep S, Vikram Kumar S Jain and S Muthukumaran</i>	
5	62	Enhanced Cavitation Erosion Resistance of Friction-Stir Processed High Entropy Alloy <i>Rakesh Nair, Harpreet Singh Arora and Harpreet Singh Grewal</i>	

Each presentation is for 08 mins and discussion for 2 mins

DAY - 1			
RESEARCH AREA: BIO MATERIALS AND CERAMICS			
SESSION CODE: II-A		HALL :	
TIME: 4.15 PM – 05.15 PM			
CHAIRMAN / VOLUNTEERS			
S.NO.	ABSTRACT ID	PAPER TITLE AND AUTHORS	
1	136	Developing Mg-Zn surface alloy by friction surface alloying (FSA): in vitro degradation studies in simulated body fluids <i>Venkateswarlu Badisha, Shabana Shaik, Charishma Manepalli, Santhoshi Thaddi, Sumathi Chebolu, Ravikumar Dumpala and Ratna Sunil Buradagunta</i>	
2	23	Structural and electrical behaviour of glass ceramic 00B under sandwiched condition between two Crofer22APU substrates <i>Soumalya Bhattacharya and H D Shashikala</i>	
3	245	Finite element analysis of polymer microneedle for transdermal drug delivery <i>Radhika C and Gnanavel B K</i>	
4	42	Determining Mechanical Properties and Vibration Analysis of Aluminium 319 alloy Reinforced with Silicon Carbide and Fly-Ash <i>Trishul M A and Srinivas Reddy Mungara</i>	

Each presentation is for 08 mins and discussion for 2 mins

DAY 1			
RESEARCH AREA: MACHINING			
SESSION CODE: II-B		HALL :	
TIME: 4.15 PM– 05.15 PM			
CHAIRMAN / VOLUNTEERS			
S.NO.	ABSTRACT ID	PAPER TITLE AND AUTHORS	
1	138	Productivity and Quality enhancement in Powder Mixed Electrical Discharge Machining for OHNS die steel by utilization of ANN and RSM modeling <i>Dinesh S, Karthikeyan T, Godwin Antony A and Vijayan V</i>	
2	03	Experimental investigations on drilling force in drilling of AZ91D Magnesium alloy <i>Satheesh G, Sowmya G, Siva Shankar Gnb, Bala Bhushanam D, Ravi Sankar B and Umamaheswarrao P</i>	
3	04	Experimental investigations on machining force in turning of AZ91D Magnesium alloy using PCBN tools <i>Umamaheswarrao P and Ravi Sankar B</i>	
4	253	Optimization of Electrical Discharge Machining of Al-Mg-TiO₂ Metal Matrix Nanocomposites <i>Senthil kumar S and Jerald J</i>	
5	119	Investigations of carbide and HSS drill performance on carbon-fiber reinforced polymer composites using optimisation techniques <i>Dr.D. Raj Kumar, Dr.N. Jeyaprakash, Dr.Che-Hua Yang and Dr.S. Sivasankaran</i>	
6	229	Machining studies of Al7075 in CNC Turning Using Grey Relational Analysis <i>Lakshmanan M, Rajajarunakaran S and Selwin Rajadurai J</i>	
7	85	Formulation of slurry for Chemical Mechanical Polishing of Cu substrates <i>Jenasree Hazarika, Chetana Sudhakar Patil and Prasanna Venkatesh Rajaraman</i>	

Each presentation is for 08 mins and discussion for 2 mins

DAY 1			
RESEARCH AREA: ADDITIVE MANUFACTURING			
SESSION CODE: II-C		HALL :	
TIME: 4.15 PM – 05.15 PM			
CHAIRMAN / VOLUNTEERS			
S.NO.	ABSTRACT ID	PAPER TITLE AND AUTHORS	
1	228	Polymer additive manufacturing of ASA structure: Influence of printing parameters on mechanical properties <i>Raam Kumar S, Sridhar S, Venkatraman R and Venkatesan M</i>	
2	249	Low-velocity Impact Characteristics on 3D Printed PLA Thermoplastic Processed by Fused Deposition Modelling <i>Dr.Bandar Abdullah Aloyaydi and Dr.Sivasankaran Subbarayan</i>	
3	08	Flexural Behavior of 3D Printed PLA thermoplastic material processed by fusion deposition modeling <i>Dr.Bandar Abdullah Aloyaydi, Dr.Subbarayan Sivasankaran and Dr.Hany Risk Ammar</i>	
4	47	Tribological behavior of EBM additive manufactured γ-TiAl <i>G. V. Krishna Pradeep, Muthukannan Duraiselvam, Siva Prasad Katakam and Ashfaq Mohammad</i>	
5	238	Prediction of responses in FDM printed casting pattern <i>Rajaguru K, Karthikeyan T, Godwin Antony A and Vijayan V</i>	

Each presentation is for 08 mins and discussion for 2 mins

DAY 1			
RESEARCH AREA: PHYSICAL AND MECHCHANICAL METALLURGY			
SESSION CODE: II-D		HALL :	
TIME: 4.15 PM – 05.15 PM			
CHAIRMAN / VOLUNTEERS			
S.NO.	ABSTRACT ID	PAPER TITLE AND AUTHORS	
1	06	Phase field modeling of precipitate coarsening in binary alloys with respect to atomic mobility of solute in the precipitate phase <i>Ayyalasomayajula Sai Deepak Kumar, Mithipati Siva Bhaskar and Suman Sarkar</i>	
2	84	Production of Amorphous Silica and Activated Carbon from Rice Husk Char obtained from Two Stage Gasification Process <i>Neha Gautam, Ganesh Kate and Ashish Chaurasia</i>	
3	71	Enhanced Physical Properties of ZEO Thin Films for Device Applications <i>Dr.M.C.Santhosh Kumar and Swapna Ramella</i>	
4	80	The impact of process parameters on the tensile strength, flexural strength and the manufacturing time of fused filament fabricated (FFF) parts <i>Shrikant Bardiya and J Jerald</i>	
5	151	Microstructures and Mechanical Properties of Dissimilar Metal Gas Tungsten Arc Welds of 15CDV6 and AISI 304 Stainless steels <i>Debapriya Chakraborty, Mahesh Shrigiri, Meenakshi Patil and Mastanaiah Potta</i>	
6	259	Effect of composition on the stacking fault energy of copper-Nickel alloys using Molecular Dynamics Simulations <i>R Devi Janani, Sameer Aman Salman, Pavithra Priyadharshini and Karthik Vaduganathan</i>	

Day-2

Poster – 11.30 AM – 03.30 PM			
Poster	Abstract ID	Title	Corresponding author
1	22	Mechanobiological Properties of Polyvinyl alcohol/Chitosan Composite Hydrogel for Soft Tissue Scaffolds	G C Mohan Kumar, B Y Santosh Kumar and Arun M Isloor
2	27	High-Shear Rate Rheometry of Micro-Nanofibrillated Cellulose (CMF/CNF) Suspensions using Rotational Rheometer	Saamil Vadodaria, Amaka Onyianta and Dongyang Sun
3	28	Hybrid Metal Oxide For Supercapacitor Applications	Brijesh Kumaran, Nagaraja H S, Vinayaraj S and Dhanush P C
4	30	A Comparison Of Convective Heat Transfer Behaviour Enclosing Air, Water And (Ag-Water) Nanofluid Around A Heated Square Plate Allocated In A Square Enclosure	Ananya Gupta, Isha Pandey and Parth Patpatiya
5	31	an analytical approach for the low temperature kinetics of n – butanol mixture	G Yuvraj, K Radhika, V Aravindh, R Vishnupriya and S Ashish
6	32	Assessment of Point Angle while Drilling Titanium	Yuvaraj G, Radhika K, Vigneshwar S, Surya V and Tarun Venkatesh Dk.
7	33	A Comparison Of Thermal Performance Consisting Air, Water And Nanofluid (Ag-Water) Around A Pair Of Heated Square Plates Placed In A Square Enclosure	Isha Pandey, Ananya Gupta and Parth Patpatiya
8	34	Issues of welding parameters on friction stir welding of AA 6063 and copper-A study	Sathish D and Veeramanikandan M
9	35	Surface modification techniques to optimise the life of hot sheet metal forming tools (in energy consumption context): A review	Shubham Awasthi
10	38	Microhardness of Fe-TiB ₂ composite coating on AISI 304 stainless steel by TIG coating technique	Anjani Kumar, Himanshu Batham and Anil Kumar Das

11	39	Characterization of porous activated carbon prepared from arhar stalks by single step chemical activation method	Minugu Om Prakash, Gujjala Raghavendra, Shukuntala Ojha and Manoj Panchal
12	41	Chelating Modified Cellulose Bearing pendant Heterocyclic Moiety for Effective Removal of Heavy Metals	Saravanan R, Karthikeyan M S and Ravikumar L
13	50	Fabrication and Characterization of Metal Fiber Laminate Composite	Shanmugaselvam P, Sasi Kumar R, Solomon Paulraj I D and Praveen M
14	53	An Experimental investigation on effect of inclusions and machinability factors of EN alloy steels – A comparative study	Rajeshshyam R
15	55	Deterioration of Economizer Tube in Utility Boiler	Chidambaram Subramanian
16	58	Permeability and dust filtration behaviour of porous SiC ceramic candle filter	Nijhuma Kayal and Dulal Das
17	59	Analysis of currency note paper and banana fiber pulp waste utilization and its effect of density, moisture and temperature on wood products in Indian manufacturing	Dr Ashok Matani and Premesh Premesh P. Bhatkar
18	60	Blending methanol as a green fuel in automobiles	Dr Ashok Matani and Ashish Mali Mali
19	63	Enhancing the Corrosion Behavior of Stainless Steel through Severe Surface Deformation	Ambrish Kumar, Gopinath Perumal, Harpreet Singh Grewal and Harpreet Singh Arora
20	64	Tuning the Surface Chemistry and Morphology of Brass for Improved Corrosion Behaviour	Jose Dominic, Gopinath Perumal, Abhishek Babu, Harpreet Singh Grewal and Harpreet Singh Arora
21	67	Experimental Investigation On Straight Through Solar Salt Water Desalination System Analysis In Different Pcm Materials	Mohanasundaram S, Mohan R and Kalaimegam D

22	68	Augmenting the machining performance of coated cutting tool inserts and hybrid optimization of cutting parameters during wet cutting of AISI 1015 Steel	Moganapriya C, Ragavendran A, Karthik V, Sathishkumar P, Saravanakumar J and Rajasekar R
23	69	Investigation On Heat Pipe With Hybrid Nanofluid	K. Kumararaja, B. Sivaraman, C. S. Khiran Kumar, Aman Pandey and B. Karthikeyan
24	72	Review on effect of fiber lay-geometry on mechanical properties of natural fiber reinforced composites	Adamu Wada and Adamu Alhaji
25	76	Oxidation Behavior of AlCrTiMoTa High Entropy Alloys	Chimbili Vikram, Harpreet Singh Grewal and Harpreet Singh Arora
26	77	preparation of sic whiskers from rice hull and separation from sic nanoparticles	Kavitha N and Balasubramanian M
27	83	Effect of Filler Metal Type on Tensile Properties of Dissimilar Welded Joint of 316 Stainless Steel and HSLA Steel	M.A Hayatu, E.T Dauda and O Aponbiede
28	88	Physico-Mechanical Properties of Almond shell powder and glass fiber reinforced polyester composite	Pradyumn Arya, Bhavesh Chaudhary and Mahesh Patel
29	89	An investigation on machining characteristics in abrasive water jet machining of hybrid laminated composites with SiC Nano Particles	R. Selvam, N. Arunkumar and L. Karunamoorthy
30	90	Parametric study on joint quality in friction stir welding of polycarbonate	Santosh Kumar Sahu, Kamal Pal and Susmita Das
31	121	Experimental Evaluation Of Strength Of Glass Fiber Composite Reinforced With Cellulose Nano Particles	Balaji R, Dinesh Kumar P K and Santhosh Kumar S

32	124	Experimental Evaluation Of Strength Of Glass Fiber Composite Reinforced With Cellulose Nano Particles	Balaji R, Dinesh Kumar P K and Santhosh Kumar S
33	127	Effects of Ca, Cu concentration on degradation behavior of Zn alloys in Hank's solution	Gurusamy Sathish Kumar, A Sameer Azar, R Santhosh, P Sriraman, K Sukumar and I Vignesh
34	128	Finite Element Analysis for Stress Concentration in a Multiscale Composite Plate with Central Hole	Bijjam Ramgopal Reddy
35	130	Effectiveness Study On Liquid Penetrant Testing On A516 Low Carbon Steel Under The Influence Of Temperature And Vibration	Manikandan K.R., Ashwin Sivagurunathan P, Ananthan S.S., Arul Marcel Moshi A and Sundara Bharathi S.R.
36	131	Design Optimizatton Of Biomedical Stent Under The Influence Of The Radial Pressure Using Fem	Jerold John Britto J, Venkatesh R, Prabhakaran R and Amudhan K
37	132	Influence of Near Dry Wirecut Electrical Discharge Machining parameters on Kerf width in Monel 400	Arun Kumar N.E., Sathishkumar N, Raviraj E, Pathri Naraynan M and Roderik Eugene
38	133	Consortium Approach For Assessment Of Research On Advanced Materials	Divakar Rao Vepakomma
39	173	Thermodynamic Simulation & Analysis of Steelmaking Practices for Production of Clean Re-Sulfur Steel	Prithiv T S, Thirumurugan G, Madan M and Ashok Kamaraj
40	175	A Review - on Vibrational Interpretations of Composite beams installed with Nitinol SMA Wires for Active and Passive applications	Dr.S.V. Satish and Keerthi Prasad C N
41	176	Optimization of machine process parameters in electro-discharge machining of silicon nitride-titanium nitride based on RSM	Srinivasan V P, Palani P K and Selvarajan L
42	181	Experimental investigation on the machinability of nodular ductile iron with cubic boron nitride and tungsten carbide inserts	Kumar K.M., Arun K., Sathishkumar N., Pathri Narayanan M. and Raviraj E.
43	186	Exploring the magnetic potential of Indian steel slags for improved applications	Chinnamani Prasannakumar and R Dineshram

44	195	Statistical modeling of the dry sliding wear properties of the AA6063-TiC composites	Saravanan S, Senthilkumar P, Ram Prabhu T and Sankar S
45	196	Effect of scan speed and powder feed rate on wear mechanism of laser clad Ti6Al4V alloy on pure magnesium substrate	Ganesa Balamurugan Kannan and Duraiselvam Muthukannan
46	223	Analysis of Geneva mechanism using Dwell Symmetrical Coupler Curve Mechanism	Chandra Shekhar A, Shaik Himam Saheb and Syed Shahab
47	233	Evaluation of Mechanical Properties on Kevlar/ Basalt Fiber Reinforced Hybrid Composites	Ramesh V and Anand P
48	234	Development and Characterization of alkali-treated and untreated Dactyloctenium aegyptium fibers based epoxy composites	Sathyamoorthy G, Vijay R and Lenin Singaravelu D
49	237	Fabrication and Experimental Investigation of Tribological behaviour of Aluminum metal matrix Composite	Duraimurugan P, Velmurugan N, Ranjith Kumar R and Vignesh R
50	239	A Comparative study on the Thermal behaviour of PPC and OPC grades of Cement.	Nari Vivek, Harsha Praneeth and Vikas Manchana
51	250	Welding Inspection Robot	Ariya Manickam M, Syed Irsath A, Keerthana S K, Vigneshwaran M, Tamizhan V B, Yeasigan S K, Sharan K and Sradeep M
52	255	Delamination Prediction on Tapered Composite Laminate with single step and Consecutive Ply drop	Abijit Dey, Pawan Kumar, Aniket Kumar Dutt, Mamookho Elizabeth and Aniket Kumar Dutta
53	78	Influence of Post weld heat treatments (PWHTs) on Laser beam welded Al-3Mg-0.25Sc alloy sheets	Venkateswarlu Karodi and Kaustav Barat

Each presentation is for 08 mins and discussions for 2 mins

DAY 2		
RESEARCH AREA: WELDING		
SESSION CODE: III-A		HALL :
TIME: 11.30AM-12.30PM		
CHAIRMAN / VOLUNTEERS		
S.NO.	ABSTRACT ID	PAPER TITLE AND AUTHORS
1	01	Effect of Welding Parameters on Joint strength of Rotary Friction Welded UNS S31803 tubes <i>Deepak Kumar M, Palani P K and Karthik V</i>
2	20	Investigating the effect of ferritic filler materials on the mechanical and metallurgical properties of Hardox 400 steel welded joints <i>Ajay Gupta, Varun Sharma, Parul Kumar and Ankit Thakur</i>
3	40	Laser welding of aerospace-grade rare earth ZE41 Mg alloy: Experimental investigations on the effect of parameters and nondestructive testing <i>P Marimuthu, P Dinesh Babu and T Ram Prabhu</i>
4	48	Effect of heating time on thermomechanical behavior of friction welded A105 bar to A312 pipe joints <i>Yu S Kong, Muralimohan Cheepu and Young W Park</i>
5	74	Joining of PEEK plates by friction stir welding process <i>Vinodh Jose and K Panneerselvam</i>
6	217	Microstructural and mechanical properties of GTAW, GMAW and FSWed AA7005 alloy: a comparative study <i>Ayush Verma, Kotteswaran B, Ashutosh Abhyankar and Shanmugasundaram Thangaraju</i>

Each presentation is for 08 mins and discussions for 2 mins

DAY 2			
RESEARCH AREA: COMPOSITES			
SESSION CODE: III-B		HALL :	
TIME: 11.30AM 12.30PM			
CHAIRMAN / VOLUNTEERS			
S.NO.	ABSTRACT ID	PAPER TITLE AND AUTHORS	
1	02	Achieving optimal process parameters during milling of Jute Fiber Reinforced Composite Using Ant Colony Algorithm <i>Umamaheswarrao P, Ravi Sankar B, Rajasekhara Babu K and Pardhasaradhi M</i>	
2	18	EXPERIMENTAL INVESTIGATION OF MECHANICAL PROPERTIES OF JUTE-RAMIE FIBRES REINFORCED WITH EPOXY HYBRID COMPOSITES <i>Aruna Santhi Kaki and Srinivas Chandana</i>	
3	49	Effect of particulate fillers on Mechanical, Metallurgical and Abrasive behaviour of tungsten reinforced HDPE composites using Grey based Taguchi approach <i>Jenson Joseph and K. Panneerselvam</i>	
4	73	Mechanical properties of glass/carbon inter-ply hybrid polymer composites at different in-service temperatures <i>Srinivasu Dasari, Sushant Saurabh, Kishore Kumar Mahato, Rajesh Kumar Prusty and Bankim Chandra Ray</i>	
5	104	Experimental Investigation on the Mechanical and Stealth Behavior of CNT based Polymer Composites <i>Navneeth Venkatesan, Pranaav Sankar and Vimalsamsingh R</i>	
6	106	Dynamic Mechanical Analysis of Areca/Kenaf Fiber Reinforced Epoxy Hybrid Composites Fabricated in Different Stacking Sequences <i>Sathyaseelan P and Prabhukumar Sellamuthu</i>	

Each presentation is for 08 mins and discussions for 2 mins

DAY 2			
RESEARCH AREA: OPTIMIZATION			
SESSION CODE: III-C		HALL :	
TIME: 11.30AM-12.30PM			
CHAIRMAN / VOLUNTEERS			
S.NO.	ABSTRACT ID	PAPER TITLE AND AUTHORS	
1	19	Optimization of Electrodeposition Parameters of Ni-WC Composite Coated Bearings <i>Dr B S Praveen Kumar</i>	
2	103	Multi-Objective Optimization of Surface Roughness, Recast Layer Thickness and Surface Crack Density in WEDM of Al2124/SiCp using Desirability Approach <i>Bommareddy Sridhar Reddy, Abbaraju Bala Koteswara Rao and G Rangajanardhana</i>	
3	105	Optimization of graphene based minimum quantity lubrication of Inconel718 turning with multiple machining performances <i>Amrita Maddamasetty and Kamesh Bodduru</i>	
4	198	Multi Objective Optimization of Machining Parameters in Drilling Hybrid Metal Matrix Composites <i>J Udaya Prakash, C Sarala Rubi and S Ananth</i>	
5	240	Optimization of Wear Parameters of Aluminium Matrix Composites (LM6/Fly Ash) using Taguchi Technique <i>J Udaya Prakash, A Divya Sadhana, S Ananth and K V Arun Pillai</i>	

Each presentation is for 08 mins and discussions for 2 mins

DAY 2			
RESEARCH AREA: COATINGS AND SURFACE ENGINEERING			
SESSION CODE: III-D		HALL :	
TIME: 11.30AM-12.30PM			
CHAIRMAN / VOLUNTEERS			
S.NO.	ABSTRACT ID	PAPER TITLE AND AUTHORS	
1	21	Investigation of steady state rheological properties and sedimentation of coated and pure carbonyl iron particles based magnetorheological fluids <i>Swaroop K V, Aruna M N, Hemantha Kumar and M R Rahman</i>	
2	158	INVESTIGATION OF CORROSION BEHAVIOUR IN A Ni-Cr AND Mo-Cr COATED CAST IRON FG 260 GRADE <i>Marimuthu Manapparai, Kapna Hemaprasad and R Michael Nirmalkumar</i>	
3	203	FTIR, Raman and XRD analysis of graphene oxide films prepared by modified Hummers method <i>Surekha Gajula, Venkata Krishanaiah Kummara and Ravi Nirlakalla</i>	
4	220	Numerical Simulation and Experimental Study on SS316 by Laser Assisted Direct Energy Deposition (L-DED) <i>Koyilada Benarji, Y Ravi Kumar and Ashwin Pawar</i>	
5	236	SURFACE CHARACTERISATION OF GCI-EN31 STEEL CONTACT UNDER LUBRICATED SLIDING CONDITIONS <i>S Ananth, J Udaya Prakash, K V Arun Pillai and P John Paul</i>	
6	117	Ultrafast laser ablation Silver targets in miscible and immiscible liquid mixtures <i>Ravikiran Avasarala, Soma Venugopal Rao and Gopala Krishna Podagatlapalli</i>	

Each presentation is for 08 mins and discussions for 2 mins

DAY 2			
RESEARCH AREA: COMPUTATIONAL METALLURGY AND MODELLING			
SESSION CODE: III-E		HALL :	
TIME: 11.30AM-12.30PM			
CHAIRMAN / VOLUNTEERS			
S.NO.	ABSTRACT ID	PAPER TITLE AND AUTHORS	
1	24	ANALYSIS OF AXISYMMETRIC HYPERSONIC NOZZLE USING COMPUTATIONAL FLUID DYNAMICS <i>Dr.Velmurugan Thirusangu</i>	
2	45	Artificial Neural Network modeling for flow stress prediction in modified 9Cr-1Mo Steel <i>D.Venkatesan Venkatesan</i>	
3	109	Elasto-Plastic fracture modeling for crack interaction with XFEM <i>Margi Gajjar, Himanshu Pathak and Sachin Kumar</i>	
4	155	Prediction of Mechanical Properties of Fe 415 steel in Hot Rolling Process using Artificial Neural Network <i>Jagadish, Dheeraj Lal Soni and Surajit Barad</i>	
5	169	Hot Model Simulation of Mould Phenomena during Continuous Casting Process <i>Ashok Kamaraj, Nimai Haldar, Premkumar M and Siddhartha Misra</i>	
6	192	Numerical Study of Bilinear Isotropic & Kinematic Elastic-Plastic Response under Cyclic Loading <i>Rajeswara Resapu and Lohit Raj Perumahanthi</i>	

Each presentation is for 08 mins and discussions for 2 mins

DAY 2			
RESEARCH AREA: WEAR AND CORROSION			
SESSION CODE: III-F		HALL :	
TIME: 11.30AM-12.30PM			
CHAIRMAN / VOLUNTEERS			
S.NO.	ABSTRACT ID	PAPER TITLE AND AUTHORS	
1	17	Comparative Study of Mechanical Properties, Corrosion and Erosion Corrosion Behavior of Cast Super and Hyper Duplex Stainless Steels <i>Nithin Raj P, Navaneethkrishnan P K, Sekar K and Joseph M A</i>	
2	54	Electrochemical and Exfoliation Corrosion Behavior of Reversion Treated High Strength Aluminium Alloy <i>Nandana M S, Udaya Bhat K, Manjunatha C M and Shashi Bhushan Arya</i>	
3	185	Study on the Wear behaviour of Aluminium Metal Matrix Composites Reinforced with Hexagonal Boron Nitride and Cubic Boron Nitride <i>Naveen Easwaran, Dr.T Ram Prabhu, Dr.Nandagopal Ramanan, Mr.G.B Rohiith and Mr.Raghunath Sudharshan</i>	
4	218	Effect of low and high temperature plasma nitriding on electrochemical corrosion of steel <i>K. R Mohan Rao, Corinne Nouveau, S. Lakshman, P. Muralidhar and Kalimi Trinadh</i>	
5	219	A STUDY ON THE MECHANICAL AND CORROSION BEHAVIOUR OF BRONZE – TIB2 METAL MATRIX COMPOSITES <i>Venkatesan Su, Jerald J, Asokan P and Harichandran R</i>	
6	179	Effect of ZrO2 Nano Particles on Mechanical and Corrosion Behaviour of Al2024 Alloy <i>Edward Kennedy, Sachin B.S, Niranjana C.A, N Sriraman and Vikram S. Jain</i>	

Each presentation is for 08 mins and discussions for 2 mins

DAY 2			
RESEARCH AREA: HEAT TREATMENT			
SESSION CODE: IV-A		HALL :	
TIME: 12.30PM – 01.30 PM			
CHAIRMAN / VOLUNTEERS			
S.NO.	ABSTRACT ID	PAPER TITLE AND AUTHORS	
1	37	Experimental Analysis on the Performance, Emission, and Combustion Characteristics of Diesel, and Diesel-water Emulsions in Low Heat Rejection Engine <i>Senthur Ns, Bala Murugan S, Ram Ganesh H and Divakara S</i>	
2	79	Investigation on Microstructure and Mechanical Properties of Solution Heat Treated and MDF Processed LM-25 Aluminium Alloy <i>Kumara B and Preetham Kumar G V</i>	
3	149	Low temperature plasma nitriding of martensitic stainless steel K. R Mohan Rao, Corinne Nouveau and Kalimi Trinadh	
4	182	Effect of ageing environment on moisture absorption and tensile properties of glass/epoxy composites <i>Padmaraj N H, Dayananda Pai and Vijaya Kini</i>	
5	97	Study on Conventional and Microwave Assisted Sintering of Cu-FA composites <i>Rajesh R, Balakrishnan Shankar, Harikrishnan J, Ajay Ritwik, Hari Krishna A, Usman Q and Hari Sankar R</i>	
6	256	Effect of substructure on hardness and conductivity of copper during annealing <i>Pawan Kumar, Mamookho Elizabeth Makhatha and Aniket kumar Dutt</i>	

Each presentation is for 08 mins and discussions for 2 mins

DAY 2			
RESEARCH AREA: METAL FORMING			
SESSION CODE: IV-B		HALL :	
TIME: 12.30PM – 01.30 PM			
CHAIRMAN / VOLUNTEERS			
S.NO.	ABSTRACT ID	PAPER TITLE AND AUTHORS	
1	44	Parameter optimization in single point incremental forming of stainless steel 430 <i>Pratheesh Kumar, Barath Kr and Sivashankaran S</i>	
2	163	Strain compensated constitutive analysis to predict elevated temperature flow behaviour of a hot isostatically processed nickel superalloy <i>S S Satheesh Kumar, T Raghu, Pinaki Prasad Bhattacharjee and G Appa Rao</i>	
3	254	Structural Characteristics of 23Cr-6Ni-3Mo duplex stainless steel during post deformation annealing <i>Mamookho Elizabeth Makhatha and Aniket kumar Dutt</i>	
4	206	The Impact of Alloying Elements Addition on the Flow Behavior of Aluminum Alloys <i>Hany R. Ammar</i>	
5	209	NDT evaluation of age hardening kinetics of RT and Cryo – ECAPed Aluminum 6063 alloy from attenuation coefficient and longitudinal velocity measurements obtained by Ultrasonic testing <i>Srinivasulu Arnuri and Swami Naidu Gurugubelli</i>	
6	210	Influence of Large Strain Hot Deformation on Microstructural Evolution in Alloy D9 <i>Aravinth Davinci M, B Aashranth, Dipti Samantaray and Utpal Borah</i>	

Each presentation is for 08 mins and discussions for 2 mins

DAY 2			
RESEARCH AREA: MACHINING			
SESSION CODE: IV-C		HALL :	
TIME: 12.30PM – 01.30 PM			
S.NO.	ABSTRACT ID	PAPER TITLE AND AUTHORS	
1	82	Magnetic field-assisted electrical discharge machining of micro-holes on Ti-6Al-4V <i>Naveen Anthuvan R, Krishnaraj V and Parthiban M</i>	
2	146	Influence of Cryogenic Treatment on the performance of Micro-EDM Tool Electrode in machining of Magnesium Alloy AZ-31B <i>Divya Prakash, Mohammad Tariq, Rahul Davis, Abhishek Singh and Kishore Debnath</i>	
3	248	Role of Tool rpm on the Evolution of Microstructure and Hardness of the Friction Stir Dissimilar Weldment of 2.25Cr-1Mo Steel to 316LN Stainless Steel <i>D Sunilkumar, Jithin Mathew, S Muthukumaran and M Vasudevan</i>	
4	100	Studies on the curing behavior of grinding wheels in the tunnel oven using Computational Fluid Dynamics <i>P M Sivaram, N Kavitha, M V Sivakumaran, N Ananthaseshan, M Premalatha and A Arunagiri</i>	

Each presentation is for 08 mins and discussions for 2 mins

DAY 2			
RESEARCH AREA: NANO MATERIALS			
SESSION CODE: IV-D		HALL :	
TIME: 12.30PM – 01.30 PM			
CHAIRMAN / VOLUNTEERS			
S.NO.	ABSTRACT ID	PAPER TITLE AND AUTHORS	
1	159	Influence of Nano-CuO in Magnesium Silicide thermoelectric behavior processed by combustion assisted spark plasma sintering <i>Sathish Sudhendra Bharathi T, Vivekanathan P and Dr Kumaran S</i>	
2	164	Preparation of calcium nanoparticles from industry rejects: Recovery and value addition of mineral values <i>Priyanka Nayar, Sayali Waghmare, Paresh Nageshwar, Mohamed Najar, Suresh Puttevar and Anupam Agnihotri</i>	
3	222	Influence of orientation and temperature on the mechanical properties and deformation behavior of nickel nanowire under bending: A large scale molecular dynamics simulation <i>Krishna Chaitanya Katakam and Natraj Yedla</i>	
4	174	Non-spherical Aluminum Nanoparticles Fabricated Using Picosecond Laser Ablation <i>Atchukola Brahma Swamulu, Soma Venugopal Rao and Gopala Krishna Podagatlapalli</i>	

Each presentation is for 08 mins and discussions for 2 mins

DAY 2			
RESEARCH AREA: WELDING AND ADDITIVE MANUFACTURING			
SESSION CODE: V-A		HALL :	
TIME: 2.30PM –3.00PM			
S.NO.	ABSTRACT ID	PAPER TITLE AND AUTHORS	
1	242	Dissimilar metals TIG welding-brazing of magnesium alloy to stainless steel <i>Sairam Kotari, Eshwaraiah Punna, S Maruthi Gangadhar, Ch Murali Mohan, Pallab Sarkar and S Venukumar</i>	
2	94	Effect of process parameters in microstructural and mechanical properties of Nd: YAG laser welded super duplex stainless steel <i>S Saravanan, N Sivagurumanikandan and K Raghukandan</i>	
3	208	Influence of friction pressure on microstructure and joining phenomena of dissimilar joints <i>Muralimohan Cheepu and Woo Seong Che</i>	
4	26	Fabrication of Supramolecular Complexes using Valvejet 3D Printing-Aided Colloidal Self Assembly <i>Saumil Vadodaria, Yinfeng He and Thomas Mills</i>	

Each presentation is for 08 mins and discussions for 2 mins

DAY 2			
RESEARCH AREA: COMPOSITES			
SESSION CODE: V-B		HALL :	
TIME: 2.30PM –3.00PM			
S.NO.	ABSTRACT ID	PAPER TITLE AND AUTHORS	
1	107	Study of mechanical and tribological properties of hybrid copper metal matrix composite reinforced with graphite and SiC <i>Pritam Sadhukhan and Rayapati Subbarao</i>	
2	111	REVIEW ON ALUMINIUM BASED FUNCTIONALLY GRADED COMPOSITES <i>Naveen Kumar S N, Devarajaiah R M and T Ram Prabhu</i>	
3	125	PREDICTION OF AXIAL LOAD ON VARIABLE GRADED COMPOSITE TUBES FOR CRASHWORTHY STRUCTURE <i>Chethana Ky, Y S Rammohan and Mg Patil</i>	
4	134	Evaluation of Mechanical Properties of Biodegradable Coconut Shell/Rice Husk Powder Polymer Composites for Light Weight Applications. <i>Jagannathan Sundarababu, Shanmuga Sundaram Anandan and Paulius Griskevicius</i>	
5	180	Manufacturing and Microstructure Characterization of Al7075/SiC Metal Matrix Composite Using Powder Metallurgy Technique <i>Mulugundam Siva Surya and Prasanthi G</i>	
6	204	Influence of Neat Resin Cure Cycle on the Curing of Hot Press Composite Laminates <i>Raghu Raja Pandiyan Kuppusamy</i>	

Each presentation is for 08 mins and discussions for 2 mins

DAY 2			
RESEARCH AREA: MELTING / CASTING / FURNACES			
SESSION CODE: V-C		HALL :	
TIME: 2.30PM –3.00PM			
CHAIRMAN / VOLUNTEERS			
S.NO.	ABSTRACT ID	PAPER TITLE AND AUTHORS	
1	184	Experimental studies of defect generation in selective laser melted Inconel 718 alloy <i>Rashmi Priya Parida and Dr. V. Senthilkumar</i>	
2	214	Role of settling velocity on particle distribution in aluminium hybrid metal matrix composite processed by stir casting <i>Ankit Singh Negi and Shamungasundaram Thangaraju</i>	
3	166	IMPROVEMENT OF ENERGY EFFICIENCY IN INDUCTION FURNACE USING FOAMING SLAG WITH VARIANCE OF OXYGEN INJECTION <i>T Kipepe and Xiaowei Pan</i>	
4	230	Instant Ash Monitoring Using A Load Cell In The Boiler <i>Manivasagam Rajendran and Richard S.P</i>	
5	170	Selective Laser Melting of 316L Stainless Steel: Physics of Melting Mode Transition and its Influence on Microstructural and Mechanical Behavior <i>Akash Aggarwal and Arvind Kumar</i>	

Each presentation is for 08 mins and discussions for 2 mins

DAY 2			
RESEARCH AREA: MECHANICAL BEHAVIOUR AND FAILURE			
SESSION CODE: V-D		HALL :	
TIME: 2.30PM –3.00PM			
CHAIRMAN / VOLUNTEERS			
S.NO.	ABSTRACT ID	PAPER TITLE AND AUTHORS	
1	231	Mechanical Behavior of hybrid Fiber Reinforced Polymer Matrix Composites <i>Karthik K, Manimaran A and Udaya Prakash J</i>	
2	232	Study on Microstructure and Properties of Al-Cu-Li Alloys <i>Radhakrishnan K, Dinesh S, Parameswaran P and Rajaguru K</i>	
3	243	Effect of magnetic permeability, shearing length and shear gap on Magnetic flux density of the Magnetorheological damper <i>Ashok Kumar K, Hemantha Kumar and Arun Mahalingam</i>	
4	187	An Investigation of Failure Behavior in CFRP Laminates under Static, Impact and Flexure Loads <i>Panbarasu K, Raghu V Prakash and Ranganath Vr</i>	
5	257	Prediction of the propagation of fatigue cracks in part-through cracked pipes with CASCA and FRANC2D <i>Pawan Kumar, Mamookho Elizabeth Makhatha and Aniket kumar Dutt</i>	
6	80	The impact of process parameters on the tensile strength, flexural strength and the manufacturing time of fused filament fabricated (FFF) parts <i>Shrikant Bardiya and J Jerald</i>	

Each presentation is for 08 mins and discussions for 2 mins

DAY 2			
RESEARCH AREA: RARE EARTH AND MAGNETIC MATERIALS			
SESSION CODE: V-E		HALL :	
TIME: 2.30PM –3.00PM			
S.NO.	ABSTRACT ID	PAPER TITLE AND AUTHORS	
1	123	Effect of Zr (Rare Earth) in the microstructure, tensile and compressive properties on Mg-6Zn alloy <i>K Saravanan, A Muthu Kumar, C Praveen, M Rahul, S Mugesh and S Saravana Kumar</i>	
2	142	Structural and magnetic properties of Ba and Sn co-substituted BiFeO3 <i>T Durga Rao, Arpita Mishra and Bhumireddi Sattibabu</i>	
3	162	Preparation and Characterization of Lanthanum Hexa aluminate Powders for High temperature Applications <i>Ynv Sairam, Dr.J. Prabakaran and Dr.C. Tarasasanka</i>	
4	244	Physical, Electrical and Dielectric Investigation of Neodymium Doped Lithium Borosilicate Glasses <i>Vikrant Ganvir, Hemlata Ganvir and Rupesh Gedam</i>	
5	113	“How much phonon assisted indirect tunneling is preferable to direct tunneling in spectroscopy of molecular compounds?” <i>Amitabh Sharma, Dr.Kaushlendra Prasad Singh and Umesh Prasad Verma</i>	

International Conference on Emerging Trends in Materials and Manufacturing

Valediction

03.30 PM – Prayer Song

03.35 PM – Welcome address by

03.45 PM – About the conference

03.55 PM – Presidential address

04.05 PM – Address by Chief Guest

04.20 PM – Prize distribution

04.30 PM – Vote of Thanks