



PM 23: TECHNICAL PROGRAM

HOTEL THE LALIT MUMBAI, INDIA

All updates on the PM 23 program are available on www.pmai.in

DAY 1: MONDAY, 13 March 2023

08:30 – 09:30	Registration	
09:30 – 09:35	Inauguration Ceremony	Welcome Address by Convener- PM 23, Dr. N. B. Dhokey
09:35 – 09:40		Lamp Lighting
09:40 – 09:55		Address by President- PMAI, Mr. Aniket Gore
09:55– 10:15		Inaugural speech by the Chief Guest Ms. Jess Blackburn, (Sr. Manager global sales Rio Tinto Metal Powders)
10:15 – 10:25		Felicitation of Sponsors
10:25 – 10:30		Vote of Thanks by Secretary - PMAI, Mr. Prakash Khole
10:30 – 11:30	INAUGURATION OF EXHIBITION FOLLOWED BY TEA	
Session 1: Session Chairs: Prof. Parag Bhargava, Dr. Malobika Karanjai		
11:30 – 12:15	Plenary Lecture 1 (Dr. Iñigo Iturriza, CEIT Spain) <i>"Powder Metallurgy based Diamond cutting Tools"</i>	
12:15 – 13:00	Plenary Lecture 2 (Prof. Satishchandra Ogale, IISER Pune India) <i>"Overview of Battery Chemistries and Materials: The Emergent Scenario and Future Challenges"</i>	
13:00 – 14:00	LUNCH BREAK	
Session 2: Session Chairs: Dr. Bharat Panigrahi, Dr. N B Dhokey		
14:00 – 14:45	Plenary Lecture 3 (Dr. R. Vijay, ARCI, Hyderabad, India) <i>"Advances in Powder Materials and Technologies"</i>	
14:45 – 15:30	Dr. R. V. Tamhankar Memorial Lecture (Dr. G. Appa Rao, DMRL, Hyderabad, India) <i>"Indigenous Isostatic Processing Technologies for Self-Reliance in Defence Systems"</i>	
15:30 – 15:45	TEA BREAK	
Session 3: Session Chairs: Dr. Sudhir Mishra, Dr. P. Nanekar		
15:45 – 16:30	Shri P.R. Roy Memorial Lecture (Dr. T. Mahata, BARC Mumbai India) <i>"P/M processing of materials for energy applications: From powder to power"</i>	
16:30 – 17:15	Shri S. L. N. Acharyulu Memorial Lecture (Dr. Deep Prakash, DAE, New Delhi, India) <i>"Powder Metallurgy in Technologies for Societal Application"</i>	
17:15 – 18:00	Poster Presentation (25 Posters) (Paper Id: 245,776,1222,1296,2177,4476,4785,5151,5379,6889,7347, 8085,8191,8341,8488,8631,8686 ,9047,9235,9326,9339,9591,4440,1222)	
18:00	EXHIBITION & TECHNICAL SESSION CLOSES	
18:30 -19:45	Cultural Program & Dinner sponsored by Singhal Sintered Pvt. Ltd. Musical Jugalbandi by Mr. Aditya Kalyanpur on Tabala & Dr. Sweekar Katti on Sitar Venue: The Lalit Mumbai Networking & Dinner	



DAY 2: TUESDAY, 14 March 2023

TIMINGS (Session Chair* Session Co-Chair**: →) Physical/Online ⇔	PRESS & SINTER DR. Malobika Karanjai* Dr. Joydeep Joardar** ROOM NO 1	BATTERY MATERIALS Dr. Amartya Mukhopadhyay* ROOM NO 2	MATERILAS FOR EMERGING APPLICATIONS Dr. Bharat Panigrahi* Dr. Vikram Dabhade* ROOM NO 3
INVITED TALK 1: 09:30 – 09:55	<p style="text-align: center;">Invited Talk 1</p> <p style="text-align: center;">Dr. Mithun Palit DMRL, Hyderabad</p> <p style="text-align: center;"><i>"Hot Isostatic Processing and Characterization of Indigenous Powder Metallurgy Nickel base Superalloy for Aero Engine Applications"</i></p>	<p style="text-align: center;">Invited Talk 1</p> <p style="text-align: center;">Dr. R. Prakash ARCI, Hyderabad</p> <p style="text-align: center;"><i>"Aqueous-process based Micron-sized lithium iron phosphate as cathode for lithium-ion batteries"</i></p>	<p style="text-align: center;">Invited Talk 1</p> <p style="text-align: center;">Prof. Atul Deshpande IIT Hyderabad</p> <p style="text-align: center;"><i>High Entropy Oxides: Synthesis, Phase Stability, Thermal Stability and Functional Behavior</i></p>
INVITED TALK 2: 09:55 – 10:20	<p style="text-align: center;">Invited Talk 2</p> <p style="text-align: center;">Dr. K. Guruvadyathri University of Hyderabad</p> <p style="text-align: center;"><i>"Calphad for powder sintering and pressing: Case studies and challenges"</i></p>	<p style="text-align: center;">Invited Talk 2</p> <p style="text-align: center;">Prof. Bharatkumar Suthar IIT Bombay</p> <p style="text-align: center;"><i>"Electrochemical impedance of porous electrodes for battery applications"</i></p>	<p style="text-align: center;">Invited Talk 2</p> <p style="text-align: center;">Dr. Joydip Joardar ARCI, Hyderabad</p> <p style="text-align: center;"><i>"Development of 2-Dimensional Tungsten disulfide Reinforced Al-Cu Alloy based Self-lubricating Composites"</i></p>
10:20 – 10:35	<p style="text-align: center;">Bhupendra Patel (1054) IIT Roorkee</p> <p style="text-align: center;">Microstructural and mechanical properties of Ni-based high entropy super alloys prepared by mechanical alloying and spark plasma sintering</p>	<p style="text-align: center;">Bachu Sravan Kumar (2814) IIT Bombay</p> <p style="text-align: center;">Designing high Na-containing P2-structured 'layered' Na- transition metal oxides as high-performance cathode materials for Na-ion batteries</p>	<p style="text-align: center;">Mandy Nie (ONLINE) (7277) Rio-Tinto</p> <p style="text-align: center;">Impact of steam treatment parameters on properties of soft magnetic composites (SMC)</p>
10:35- 10:50	<p style="text-align: center;">Arpan Arora (817) IIT Roorkee</p> <p style="text-align: center;">Organized study of Zr, Al and Y2O3 addition in Fe-Ni invar alloy prepared through mechanical alloying and spark plasma sintering</p>	<p style="text-align: center;">Kiran Kumar Garlapati (786) IIT Hyderabad</p> <p style="text-align: center;">VOx nano particles anchored Ti3C2TxMXenes composites for high-performance supercapacitors</p>	<p style="text-align: center;">Srinivas Kumar Glsb (756) DMRL, Hyderabad</p> <p style="text-align: center;">Influence of Strain Rate and Associated Microstructural Evolution During Hot Deformation of a Powder Metallurgy Ni-Based Superalloy</p>
10:50 - 11:05	<p style="text-align: center;">Priyanka Gaikwad (962) Höganäs India Pvt Ltd</p> <p style="text-align: center;">Mix Solution for High Green-Strength and Green Machining</p>	<p style="text-align: center;">Pranay Gandharapu (6169) IIT Bombay</p> <p style="text-align: center;">Synthesis and Investigation of Sn-based Binary Alloy particles as anode materials for Na-ion Batteries</p>	<p style="text-align: center;">Saravanan (9195) DMRL, Hyderabad</p> <p style="text-align: center;">Development of MnAl Based Nanostructured Magnets as a Prospective Alternative to Rare-Earth Permanent Magnets</p>



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11:05 - 11:20		TEA BREAK		
INVITED TALK 3: 11:20 - 11:45	<p>INVITED TALK 3</p> <p>Devinder Yadav IIT Patna</p> <p>"Flash sintering: From sintering to material development"</p>	<p>INVITED TALK 3</p> <p>Dr. Sarika Phadake KPIT, PUNE</p> <p>"Role of Processing of materials and coatings in Batteries"</p>	<p>INVITED TALK 3</p> <p>Dr. Venkat A.N.Ch. CSIR-AMPRI Bhopal</p> <p>"In-situ aluminum, closed cell foam-filled stainless-steel tubes with foam-tube bonding for enhanced mechanical properties"</p>	
INVITED TALK 4: 11:45 - 12:10	<p>INVITED TALK 4</p> <p>Dr. Bharat Panigrahi IIT Hyderabad</p> <p>"Revisiting the driving forces and sintering mechanisms in view of sintering of the multicomponent alloy powders"</p>	<p>INVITED TALK 4</p> <p>Dr. Sushmita Bera RISE, WB</p> <p>"Developing Safe, Cost Effective and High Energy Density Solid State Battery"</p>	<p>INVITED TALK 4</p> <p>Prof. Sheela Singh SRM University, AP</p> <p>"Ni-Mo-Al- Cr₂AlC MAX Phase Composite for Automotive Application"</p>	
INVITED TALK 5: 12:10-12:35	<p>INVITED TALK 5</p> <p>Dr. Dina V. Dudina Laboratory of Synthesis of Composite Materials, Novosibirsk, Russia (ONLINE)</p> <p>"Sintering aspects in the development of metallic glass-reinforced metal matrix composites"</p>	<p>INVITED TALK 5</p> <p>Dr. D. Sivaprasasam ARCI Chennai</p> <p>"Powder Metallurgy Processed Thermoelectric Devices"</p>	<p>INVITED TALK 5</p> <p>Prof. Manoj Chopkar NIT Raipur</p> <p>"Novel MoNbSiTaTi Refractory High-Entropy Alloy Prepared by Mechanical Alloying"</p>	
12:35 - 12:50	<p>Mr. Narsi Chandrachud (000) Consultant</p> <p>Development of Advanced Lubricants for best-in-class PM Applications</p>	<p>Manjunath L Nilugal (4951) IIT Bombay</p> <p>Model-based analysis of capacity fade for sodium-ion batteries using reaction limited model</p>	<p>Navin Kumar (1682) CSIR IMMIT, Bhubaneswar</p> <p>Thermal stability and oxidation behavior of spark plasma sintered AlCoCrSiNi high entropy alloy</p>	
12:50 - 13:30	<p>Poster Presentation</p> <p>(Paper Id: 930,1101,8602,4272,5849,7675,7987,2532,1746,1939,7176 6960,1665,2050,9744,5221,6277,6403,6530,6796,8925,9813 & remaining)</p>			
13:30 - 14:30		LUNCH BREAK		
<p>TIMINGS</p> <p>(Session Chair* Session Co-Chair**: →) Physical/Online →</p>	<p>POWDER PRODUCTION</p> <p>Dr. V.C. Srivastava* Mr. Mahesh Nipanikar**</p> <p>ROOM NO 1</p>	<p>ADDITIVE MANUFACTURING</p> <p>Dr. Deepak Patanayak* Dr. Saurabh Nene**</p> <p>ROOM NO 2</p>	<p>TECHNICAL CERAMICS AND COMPOSITES</p> <p>Dr. S.P. Butee* Dr. Amit Sinha**</p> <p>ROOM NO 3</p>	



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INVITED TALK 6: 14:30 - 14:55	<p>Keynote</p> <p>Prof. Dr.-Ing. habil. Udo Fritsching, IWT Germany (Online)</p> <p><i>"Composite Metal Powder Production in Spray Processes with Pressure-Gas-Atomization"</i></p>	<p>Invited Talk 6</p> <p>Dr. Gururaj Telsang ARCI, Hyderabad</p> <p><i>"Powder Bed Fusion Additive Manufacturing: Materials and Applications"</i></p>	<p>Invited Talk 6</p> <p>Dr. Malobika ARCI Hyderabad</p> <p><i>"New Generation PM based Soft Magnetic Composites for Application in Axial Flux and PMACMs"</i></p>
INVITED TALK 7: 14:55 – 15:20	<p>Kameswara Srikar Sista (764) TATA STEEL (15:00-15:15)</p> <p>Study on effect of mechanical forces on physico-chemical properties of reduced iron powders</p>	<p>Invited Talk 7</p> <p>Dr. Ravi K R IIT Jodhpur (Online)</p> <p><i>"Industry 4.0 for Metal Additive Manufacturing"</i></p>	<p>Invited Talk 7</p> <p>Mr. Dev Bhise Q Gen-Next Sustainable Technologies</p> <p><i>"Advance Ceramic Products for combating climate change"</i></p>
15:20 – 15:35	<p>Bilal Murtuza Pirjade (2824) TATA STEEL</p> <p>Controlled microwave reduction of mill scale oxides for iron powder synthesis</p>	<p>Subhendu Naskar (150) IIT Hyderabad</p> <p>Microstructural heterogeneity in additive manufactured Inconel 718 superalloy at different build size during powder based Direct Energy Deposition</p>	<p>Jitendra Kumar Sonber (1501) BARC, Mumbai</p> <p>Synthesis, densification and characterization of Neodymium Hexaboride</p>
15:35-15:50	<p>Shweta Verma (4880) GTRE-DRDO</p> <p>Mechanical Milling of Ni-Cr-B-W Braze Filler Powder for Joining of Aero Engine Materials</p>	<p>Seema Negi (1221) IIT Bombay</p> <p>In-house development of Alumina slurry for Digital Light Processing based Additive Manufacturing process</p>	<p>Jyothi Sharma (4348) BARC, Mumbai</p> <p>Thermal conductivity of Alumina-Zirconium diboride composite</p>
15:50 - 16:05	<p>Kalathur Narasimhan (7175) P2P Technologies</p> <p>PROPERTIES AND APPLICATIONS FOR IRON POWDER MADE BY GAS ATOMIZATION</p>	<p>Bonagiri Sai Charan (2451) CSIR, Karaikudi</p> <p>Single scan track analysis of selective laser melted AISi10Mg alloy</p>	<p>Pravin Varade (5232) IIT Bombay</p> <p>Synthesis and Characterization of Environment friendly Na_{0.4}K_{0.1}Bi_{0.5}TiO₃ Ceramics for Multifunctional Applications</p>
16:05 - 16:20	TEA BREAK		
INVITED TALK 8: 16:20 - 16:50	<p>INVITED TALK 8</p> <p>Ola Litström Höganäs AB, Sweden</p>	<p>INVITED TALK 8</p> <p>Dr. Prashanth Konda TUT Estonia</p>	<p>Durga Raju (5588) IIT Hyderabad (16:20-16:35)</p> <p>Effect of Sintering additives on the Densification of Ytria Stabilized Zirconia Powders</p>



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	"Global trends and the future of PM"	"Premature failure in additively manufactured materials"	<p>Yogesh S. (6205) JNEC, Abad (16:35-16:50)</p> <p>Comparison of Residual stress generation in Al/Sic Metal Matrix Composite and dies steel after Wire Cut Electro Discharge Machining</p>
<p>INVITED TALK: 9 16:50- 17:15</p>	<p>INVITED TALK 9 Dr. Abhijit Ghosh BARC, Mumbai</p> <p>"Ceramic powder synthesis: Wet chemical and solid state reaction route"</p>	<p>INVITED TALK 9 Dr. Arulkumar K. Levigante Alloys Pvt Ltd.</p>	<p>Ashwini (1011) COEP Tech, Pune (16:50-17:05)</p> <p>Fabrication and Characterization of Electrodeposited Copper-Woven Carbon Fiber Mesh Filters for Contaminated River Water Treatment</p>
<p>17:15-17:30</p>	<p>Dharmendra Prajapati (5636) UCIL Jaduguda</p> <p>Factors Influencing Chemical Kinetics of Uranium Peroxide Precipitation from Product Recovery Solution of Jaduguda Mill</p>	<p>Battula Lakshmi Prasanna (6249) DMRL, Hyderabad</p> <p>Studies on Microstructure and Mechanical Properties of Inconel718 Processed through 3D Metal Printing + Hot Isostatic Pressing</p>	<p>Seema Negi (5539) IIT Bombay (17:05-17:20)</p> <p>Fabrication of Alumina Porous Structure by Vat Photopolymerization-based 3D Printing Process</p>
<p>17:30-17:45</p>	<p>Divya Padmanabhan (2243) Pillai COE</p> <p>Nano zirconia synthesis through a novel method-Salt Incorporated Precursor Spraying</p>	<p>Prashant Jikar (6174) COEP TECH Pune.</p> <p>Design and Development of Process for Spheroidization of Powders for Additive Manufacturing</p>	<p>INVITED TALK 8 Prof. Bala Vaidhyanathan Loughborough University, UK (online) Timing 17:20-17:45 "3D printing of Advanced Ceramics"</p>
<p>17:45-18:00</p>	<p>Rahul Lokmanwar (7493) Höganäs India Pvt Ltd</p> <p>Sustainable stability solution for Press and Sinter materials</p>	<p>Saroj Kumar Sahu (676) VSSUT, BURLA, ODISHA</p> <p>A short review on the processing of Ni-based super-alloys by metal additive manufacturing</p>	<p>Sateshwar Malladi (8858) DMRL, DRDO (17:45-18:00)</p> <p>Structure Property Relationships in Cold Isostatically Pressed and Sintered Si3N4 for High Temperature Microwave Application</p>
Technical Session Closes			
<p>19:00 ONWORDS</p>	<p>Annual General Meeting of PMAI Banquet Dinner for invitees and delegates Venue: The Lalit Mumbai Networking & Dinner</p>		



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DAY 3: WEDNESDAY, 15 March 2023

TIMINGS (Session Chair* Session Co-Chair**: →) Physical/Online ⇔	MODELLING & SIMULATION Dr. Supriya Sarkar*	MATERIALS FOR EMERGING APPLICATIONS Dr. Bharat Panigrahi* Dr. Vikram Dabhade**	SURFACE ENGINEERING Dr. D.A. Karandikar* Mr. Srinivas Ghule**
	ROOM NO 1	ROOM NO 2	ROOM NO 3
INVITED TALK 1: 09:00 – 09:25	Invited Talk 1 Prof. Shamit Bakshi IIT Madras <i>"Numerical simulation for gas atomization of liquid metal"</i>	Invited Talk 1 Dr. N. Sathish CSIR-AMPRI Bhopal <i>"Additive manufacturing of graphene-based metal matrix composites".</i>	Invited Talk 1 Mr. Amish Jani RIL, Mumbai <i>"SURFACE ENGG OF MATERIALS FOR CORROSION -PREVENTION"</i>
INVITED TALK 2: 09:25 – 09:50	Invited Talk 2 Dr. Gerald Tennyson and Pramod Zagade , TRDDC, Pune <i>"Numerical simulations in additive manufacturing"</i>	Invited Talk 2 Dr. Ajit Panigrahi CSIR-IMMTD, Odisha <i>"Evolution of microstructure and mechanical properties in binder modified tungsten heavy alloys"</i>	Invited Talk 2 Dr. Vijay M. Nimbalkar NMRL-DRDO, Mumbai <i>"SURFACE ENGG IN NAVAL MATERIALS"</i>
09:50 – 10:05	Pavan Kalyan Appala (9453) IIT Madras DEM simulations of sintering for metal fused filament fabrication	Amit Dhar (2476) NIT Durgapur Processing of nitinol by powder metallurgy & its microstructure and properties correlation	Gaurav Kumar (3085) DMRL, Hyderabad The Influence of Cold Isostatic Pressing on the Indentation and Scratch Response of Abradable Coating
10:05 - 10:20	Kunal K. Sharma (2319) IIT Bombay ANALYSIS OF SPIN NUMBER VARIATIONS IN A SPIRAL AIR JET MILL USING SINGLE PHASE CFD SIMULATIONS	Gaurav Kumar Gupta (2744) AMPRI Porous Architecture Multifunctional Aluminum Hollow Metal Spheres (Al-HMS): Fabrication and Mechanical Properties for Lightweight Structural Applications	Nikita Mohite (5130) Höganäs India Pvt Ltd Use of Tribology to understand the actual performance of coating
10:20 - 10:35	Yogesh Fatangade (683) COEP TECH Pune Effect of particle shape factor and bind on powder roll compacted iron-based metallic strip and its mathematical analysis	Debashish Mohanta (4911) IIT Bhubaneswar Development of Aluminium composites with W-based novel reinforcements through conventional PM route.	Abhishek Soni (6140) DIAT Pune Investigation of Electroless NiB Coating for Small Arms
10:35 - 10:50			
INVITED TALK 3: 10:50 - 11:15	INVITED TALK 3 Mr. Mohan Nainegali	INVITED TALK 3 Dr. Supriya Bera	INVITED TALK 3 Mr. Harshad Natu



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	<p>Altair, Pune</p> <p>"Altair EDEM, Novel Technique to handle and process metal powders"</p>	<p>NIT Durgapur (WB)</p> <p>"Developing ex-situ and in-situ Al-based alloy composites by powder metallurgical route"</p>	<p>Magod Fusion Technologies Pvt. Ltd.</p> <p>"Laser Fusion Technologies: An Efficient Surface Engineering Technique For Repair, Reconfiguration And Restoration"</p>
11:15- 11:45	<p>Nadimetla Thirupathi (6286) IIT Goa (11:15-11:30)</p> <p>Finite Element Simulation of Electromagnetic Axial Powder Compaction of SS 316 Powder</p>	<p>INVITED TALK 4</p> <p>Dr. Ajoy Kumar Pandey NIT, Warangal</p> <p>"Evolution of Zirconia Based Bio-ceramics"</p>	<p>Session: ADDITIVE MGF</p> <p>Dr. Deepak Pattanayak Dr. Saurabh Nene</p> <p>INVITED TALK 4</p> <p>Dr. Sajan Kapil IIT Guwahati</p> <p>"A Novel Non-Pneumatic Method of Powder Feedstock Handling for Directed Energy Deposition-based Additive Manufacturing"</p>
	<p>Shakti Swaroop Choudhury (3839) IIT Madras (11:30-11:45)</p> <p>DEM Simulation of powder spreading for the development of Functionally Graded Materials in LPBF</p>		
11:45 - 12:00	<p>Dr. Ravi Bollina (4654) (ORANGE KOI Private Limited) Mohamed Ismail Khan (MAGMA Engineering India Pvt Ltd)</p> <p>SIGMASOFT® Virtual Molding use in Optimizing MIM process for Firearms-Cost savings and benefits analysis</p>	<p>Raghu C Reddy (4856) C-MET, Pune</p> <p>Preparation and characterization of Hafnium Oxide</p>	<p>M Srikanth (8062) CSIR-CECR Karaikudi</p> <p>Effect of heat treatment behavior on mechanical properties of Selective laser melted Ti6Al4V</p>
12:00 - 12:15	<p>Swapnil Sable (7978) COEP TECH Pune</p> <p>Numerical Investigation of gas flow behavior on gas atomization process</p>	<p>Sarika Kumari (6092) IIT BHU</p> <p>Synthesis, characterization and indentation behavior of Fe-based bulk-alloys and mechanically alloyed powders</p>	<p>Sujith Reddy Jaggannagari (5203) IIT Madras</p> <p>DEM investigation on the influence of cohesive non-spherical powders on the powder bed quality in Additive Manufacturing</p>
12:15 - 12:30	<p>SESSION: PRESS & SINTER DR. Malobika Karanjai* Dr. Jovdeep Joardar**</p>	<p>Vaishali Poddar (6547) NIAMT, Ranchi</p> <p>The Broad Usage Spectrum of Thermoelectricity from Low Temperature Photovoltaic to High Temperature Furnaces: An Overview</p>	<p>K Venkatesan (1106) CSIR-CECR Karaikudi</p> <p>Development of SLMed Ti cancellous bone structure modified with bioactive and antimicrobial properties via electrochemical approach and its in-vitro corrosion behavior</p>
	<p>Vipul Utkar (8191) Höganäs India Pvt Ltd</p> <p>Somaloy® - SMC Material Enabling More Efficient Electromagnetic Designs</p>		
12:30-12:45	<p>Priyanka Ninawe (6966) IIT Hyderabad</p> <p>Microstructural and mechanical properties of pressure sintered Ytria dispersed AlCoCrFeNi high entropy alloy via nano indentation method</p>	<p>Maitreya Fulmali (8822) NIT Rourkela</p> <p>Fabrication of tungsten heavy alloys reinforced with iron aluminide and Cr₂AlC (MAX Phase) by powder metallurgy</p>	<p>Ann Mary Mathew (1067) CSIR-CECR Karaikudi</p> <p>Surface Modification of Selective Laser Melted Ti Based Porous Scaffolds for Biomedical Application</p>



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12:45-13:00	Jagadish Parida (6245) NIT Rourkela Synthesis, Characterization and Properties study of TiNiFe Shape Memory Alloys	Anke Rajasekhar Babu and Puchalapalli JNTUA Anantpur (2115) Electrochemical Studies, Antimicrobial Activity and Catalytic Degradation Studies of Green Route Synthesized Silver Nanoparticles using Calotropis Gigantea Leaf Extract.	Rukshana Parween (3383) CSIR Jamshedpur0 Studies on the Extraction of Precious and Non-ferrous Metals from waste printed circuit boards (PCBs)
13:00- 14:00	LUNCH BREAK		
TIMING (Session Chair* Session Co-Chair**: →) Physical/Online ↔	PRESS & SINTER DR. Malobika Karanjai* Dr. Joydeep Joardar** ROOM NO 1	MATERIALS FOR EMERGING APPLICATIONS Dr. Bharat Panigrahi* Dr. Vikram Dabhade** ROOM NO 2	WASTE MANAGEMENT Dr. Maniskumar Jha** ROOM 3
INVITED TALK 5: 14:00 - 14:25	INVITED TALK 5 Dr. Gerard Delette CEA-LITEN, France (Online) "Various aspects of pressing and sintering in the development of Nd-Fe-B permanent magnets by Powder Metallurgy route"	INVITED TALK 5 Dr. Tilak Joshi CSIR-AMPRI Bhopal "A brief prospective towards the transformation of porous metallic materials into metal syntactic foams/composites"	INVITED TALK 5 Dr. Jhumki Hait NML, Jamshedpur (Online) "Potential hydrometallurgical processes to recover base and precious metals from secondaries"
INVITED TALK 6: 14:25 – 14:55	INVITED TALK 6 Dr. Ravi Kiran DMRL, Hyderabad "Sintering time and deformation effects on W-Ni-Co based heavy alloys processed through liquid phase sintering"	INVITED TALK 6 Dr. R. SUNIL KUMAR NIT, AP "A Review on Processing Routes of ODS Steels for High Temperature Applications".	Anas N S (5235) JNARDDC, Nagpur (14:25-14:40) Effect of preheat temperature on compaction of machined AA2024 swarf (chips) Rohan Magar (3803) COEP Tech Pune. (14:40-14:55) High purity iron from Industrial mill scale waste: a step towards sustainable development
14:55-15:10	Krishnamurthy Goggi, Vaibhav Raibole Jain COER (3234) Impact of sintering on metal organic framework: a review	Sayoni Sarkar (2017) IIT Bombay A comparative evaluation of luminescent ZnO nano powders synthesized by batch, microwave-assisted and continuous flow processes — connecting the voids	Shilpa Kalamani Bawkar (9918) CSIR Jamshedpur Recovery of copper powder from electronic industry effluent



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15:10 - 15:25	<p>Suman Vadla (2747) NIT Rourkela</p> <p>A comparative study of tungsten-silicon alloys synthesized by powder metallurgy using spark plasma and conventional sintering</p>	<p>Suyog Gaikwad (1001) IIT Roorkee</p> <p>Mechanical Properties and Deformation Mechanism at Elevated Temperatures of IN718 Superalloy Processed by Powder Forging</p>	<p>Pankaj Kumar Choubey (7909) CSIR Jamshedpur</p> <p>Reclamation of cobalt from spent lithium ion batteries using electro-winning process</p>
INVITED TALK 7: 15:25 - 15:55	<p>Sudarshan Palve (6633) COEP Tech Pune (15:25 -15:40)</p> <p>Influence of processing parameters and alloying elements in Astaloy 85Mo (FL-4405 modified) on their mechanical properties</p>	<p>INVITED TALK 8</p> <p>Dr. M V Reddy (NMG), Quebec, Montreal, Canada (Online) (15:25 -15:55)</p> <p><i>"Advances on Materials for energy storage Technology"</i></p>	<p>SESSION: Hard Metals &Cutting tools. Dr. Vivek Singal</p> <p>Guiomar Riu Perdrix (9776) STEROS GPA INNOVATIVE, S.L (15:25 -15:40)</p> <p>Correlation between mechanical properties and microstructure on different ground cemented carbides grades under service-like working conditions</p>
	<p>Bhawna Yadav (1246) IIT Hyderabad (15:40 -15:55)</p> <p>Grain size effects on the phase growth kinetics in CoNi/Sn sandwich diffusion couples</p>		<p>Arbind Kumar (9952) C-MET Pune (15:40 -15:55)</p> <p>Novel approach for the Synthesis of Tantalum Niobium Carbide for Structural Application</p>
15:55- 16:20		<p>INVITED TALK 8</p> <p>Dr. Priyanshu Bajaj m4p material solutions GmbH (15:55 -16:20)</p> <p><i>"Clean and Reliable Metal Powders – A Statistical Approach"</i></p>	<p>Guiomar Riu Perdrix (4602) STEROS GPA INNOVATIVE, S.L (15:55 -16:10)</p> <p>Surface integrity evaluation on different post-processing techniques applied on WC-Co cemented carbide produced by Conventional route.</p>
16:20-16:30	Tea Break		
16:30- 17:00	VALEDICTORY CEREMONY		
DAY 3 FINISH			

***Note: Please use your abstract Id/ Name to search for your Poster/Oral Session. If you are unable to locate your Abstract Id, your presentation will be scheduled for the poster session on Day 2.**

