

THE INDIAN INSTITUTE OF METALS

IIM ATM 2021, International Conference and NMA

IIM ATM 2021- Overall Program 13th to 15th Nov 2021

Date	Time	Event
13th November 2021	09:30 – 10:00 hrs	Inaugural Ceremony – Poster Session, Metallography Contest and Technical Exhibition
	10:00 – 13:30 hrs	Poster Sessions for 8 parallel themes of IIM ATM 2021
	14:00 – 14:45 hrs	Inaugural Ceremony – International Conference on Advanced Materials and Manufacturing for Sustainable Future
	14:45 – 20:00 hrs	International Conference on Advanced Materials and Manufacturing for Sustainable Future
14th November 2021	09:30 – 14:20 hrs	Inaugural Ceremony – IIM ATM 2021, IIM Awards Function, Memorial Lectures and Plenary Lectures
	14:30 – 20:15 hrs	IIM ATM 2021 Oral Sessions Day -1
15th November 2021	08:30 – 18:00 hrs	IIM ATM 2021 Oral Sessions Day -2
	18:30 – 19:30 hrs	IIM ATM 2021 Valedictory Function and Awards Ceremony

Organized by
**IIM Jamshedpur &
 Kolkata chapters
 and Tata Steel Ltd.**



IIM ATM 2021- Overall Program 13th to 15th Nov 2021

13th Nov 2021

Time	Activity
	Inaugural Program -Poster Contest, Metallography & Technical Exhibition
9.30	Opening welcome by MC and introducing dignitaries
9.35	Welcome address by Chairman, COC, Mr. Sudhansu Pathak
9:40	Address by President IIM, Mr. T. V. Narendran
9:50	Opening of Poster, Technical exhibition and Metallography sessions
9.55	Vote of Thanks by Dr. Atanu Pal, Chairman Hall Management Committee Tech Exhibition Poster Metallography
10:00	MC to request audience to join Halls for viewing poster competition Technical exhibition and Metallography sessions.
	END of Inaugural Program
10.00 to 13.30	Poster contest (8 parallel sessions)
	1. Raw Materials
	2. Ferrous Process Metallurgy
	3. Products
	4. Non-ferrous Metals
	5. Energy, Environment & Waste Utilization
	6. Advances in Material Science &T
	7. Industry 4.0
	8. Safety
13:30 to 14:00	Lunch Break
14:00	International Conference on Advanced materials and manufacturing for sustainable future
14:00 to 14:05	Welcome note by Chairman of International Conference, Dr Debashish Bhattacharjee
14:05 to 14:15	2:05 – 2:15 pm –Inauguration lecture by President IIM, Mr TV Narendran
14:15 to 14:45	Keynote Lecture by Dr K Vijay Raghawan, Principal Scientific Advisor, Govt of India & Chief Guest of this event
14:45 to 15:25	ICME and Material Genome in process technology by Mr Ananth Krishnan, Executive Vice President and Chief Technology Officer, Tata Consultancy Services
15:25 to 16:05	Emerging Technology in 2D and FGM development- Dr G U Kulkarni, President, JNCAR & CeNS
16:05 to 16:45	Advancing materials towards a sustainable society by Prof Philip Withers, Chief Scientist and Regius Professor of Materials Henry Royce Institute, Director of the National Research Facility for Lab. CT (NXCT.ac.uk), A: Royce Hub Building, The University of Manchester
16:45 to 16:55	Break
	Session II: Modern application development and trends (Presentation-30 mins+QA-10mins each)
16:55 to 17:35	Light weighting and safety in mobility and e-mobility by Mr Andrew Foster, Chief Engineer Body Component, Mrs. Rebecca Hitch, Senior manager for Materials Engineering and Product Sustainability, JLR
17:35 to 18:15	Power to the people democratisation driven by coated steel products by Prof David Worsley, Personal Chair, Materials Science and Engineering, Swansea University
18:15 to 18:55	Additive's Future in Manufacturing by Dr Kirk Rogers, Principal ADDvisor® and Technical Excellence leader, The Barnes Global Advisors, LLC
18:55 to 19:00	Break
19:00 to 20:00	Panel Discussion on Sustainability (Cradle to Grave) 3 Panel members: (i) Ms Deeksha Vats, Chief Sustainability Officer, Aditya Birla Group (ii) Dr N Kalaiselvi, Director CSIR-CECRI (iii) Dr Pinakin Chaubal, VP & CTO, Arcelor Mittal
20:00	Vote of thanks by Dr A. N. Bhagat, Joint Convener of the International Conference

IIM ATM 2021- Overall Program 13th to 15th Nov 2021

14th Nov 2021

Time	Activity
IIM ATM 2021 Inaugural & Award Programme	
9.30	Opening welcome by MC and introducing dignitaries
9.31	Welcome address by Chairman, COC, Mr. Sudhansu Pathak
9.35	Address by Vice President IIM, Dr. S V Kamat
9:40	Address by President IIM, Mr. T. V. Narendran
9:50	Address by Steel Secretary
10:00	Address by the Chief Guest, Union Minister of Steel
Start of Awards	
10:20	Announcement of Awards (by Shri Kushal Saha, Secretary General)
10:21	IIM National Sustainability Award: Iron & Steel 2020-21
10:25	IIM Non –Ferrous Best Performance Award: 2020-21
10:30	10 min break
10:40	Beginning of IIM Core Awards Function by MC
10:41	Welcome address by Convener, Org Committee (Dr. Tanmay Bhattacharyya)
10:45	Address by Vice President IIM (Dr. S V Kamat)
10:50	Presidential Address by President IIM (Mr. T V Narendran)
11:00	Announcement of IIM Awards by Hon Treasurer (Mr Somnath Guha)
11:01	IIM Honorary Member Award-1
11:04	IIM Honorary Member Award-2
11:07	IIM Honorary Member Award-3
11:10-11:35	IIM core category awards
11.35	IIM Book Series Launch
11:45	Vote of Thanks – Mr Kushal Saha (Secretary General)
Start of Memorial Lectures	
11:50	MC to invite session chair, Dr. SV Kamat, Sec General IIM (Mr.Kushal Saha) & Speaker (Dr. Srikanth Joshi, Sweden)
11:51	Prof. N P Gandhi Memorial Lecture
12:20	MC to invite session Chair: Satish Pai, Sec General IIM (Mr.Kushal Saha) & Speaker (Prof. B. Ravi, IIT Bombay)
12:21	Dr. Daya Swarup Memorial Lecture
12:50	MC to invite session Chair: Mr. Sajjan Jindal, Sec General IIM (Mr.Kushal Saha) & Speaker (Prof. Rahul, IIT KGP)
12:51	Shri G D Birla Gold Medal Lecture
Start of Plenary Lectures	
13:20	MC to introduce session Chair: Dr. Indranil Chattoraj for plenary lecture-1
13:21	Dr. Sri Kumar Banerjee and Dr. Rangachari Krishnan memorial Plenary lecture-1 by Dr. Anil Kakodkar, Chancellor, Homi Bhabha National Institute & Former Chairman, Atomic Energy Commission
13:50	MC to introduce session Chair: Dr. Debashish Bhattacharjee for plenary lecture-2
13:51	Plenary lecture-2 by Prof. HKDH Bhadeshia, University of Cambridge, UK
14:20	END of PROGRAM

IIM ATM 2021- Overall Program

13th to 15th Nov 2021

15th Nov 2021

SESSION-2: 10:45 to 13:00

Time	HALL-1	HALL-2	HALL-3	HALL-4	HALL-5	HALL-6	HALL-7	HALL-8
10:45 to 11:00	KNS-1	KNS-1	S-1	S-1	KNS-1	KNS-1	KNS-1	KNS-1
11:00 to 11:15			S-2	S-2				
11:15 to 11:30	S-1	KNS-2	S-3	S-3	KNS-2	S-1	S-1	KNS-2
11:30 to 11:45	S-2		S-4	S-4		S-2	S-2	
11:45 to 12:00	S-3	S-1	S-5	S-5	KNS-3	S-3	S-3	S-1
12:00 to 12:15	S-4	S-2	S-6	S-6		S-4	S-4	S-2
12:15 to 12:30	S-5	S-3	S-7	S-7	S-1	S-5	S-5	S-3
12:30 to 12:45	S-6	S-4	S-8	S-8	S-2	S-6	S-6	S-4
12:45 to 13:00	Break							

LUNCH BREAK: 13:00 to 13:30

SESSION-3: 13:30 to 15:45

Time	HALL-1	HALL-2	HALL-3	HALL-4	HALL-5	HALL-6	HALL-7	HALL-8
13:30 to 13:45	KNS-1	S-1	KNS-1	S-1	KNS-1	KNS-1	KNS-1	KNS-1
13:45 to 14:00		S-2		S-2				
14:00 to 14:15	S-1	S-3	S-1	S-3	KNS-2	S-1	S-1	KNS-2
14:15 to 14:30	S-2	S-4	S-2	S-4		S-2	S-2	
14:30 to 14:45	S-3	S-5	S-3	S-5	S-1	S-3	S-3	S-1
14:45 to 15:00	S-4	S-6	S-4	S-6	S-2	S-4	S-4	S-2
15:00 to 15:15	S-5	KNS-1	S-5	S-7	S-3	S-5	S-5	S-3
15:15 to 15:30	S-6		S-6	S-8	S-4	S-6	S-6	S-4
15:30 to 15:45	Break							

SESSION-4: 15:45 to 18:00

Time	HALL-1	HALL-2	HALL-3	HALL-4	HALL-5	HALL-6	HALL-7	HALL-8
15:45 to 16:00	KNS-1	S-1	No session	S-1	S-1	KNS-1	KNS-1	S-1
16:00 to 16:15		S-2		S-2	S-2			S-2
16:15 to 16:30	S-1	S-3		S-3	S-3	S-1	S-1	S-3
16:30 to 16:45	S-2	S-4		S-4	S-4	S-2	S-2	S-4
16:45 to 17:00	S-3	S-5		S-5	S-5	S-3	S-3	S-5
17:00 to 17:15	S-4	S-6		S-6	S-6	S-4	S-4	S-6
17:15 to 17:30	S-5	KNS-1		S-7	S-7	S-5	S-5	S-7
17:30 to 17:45	S-6			S-8	S-8	S-6	S-6	S-8
17:45 to 18:00	Break	Break		Break	Break	Break	Break	Break

Valedictory Function

Time	Activity
18:30	Introduction by MC and invitation to the Dignitaries Dais: Mr. T.V Narendran (President IIM), M. Sudhansu Phatak (Chairman COC), Dr. Tanmay Bhattacharyya (Convener COC), Dr. S V Kamat (Vice President IIM), Mr. Kushal Saha (Secretary General IIM), Dr. Asim Kumar Ray (Chairman IIM Kolkata Chapter) Dr. AN Bhagat (Chairman JSR Chapter)
18:33	Beginning of Awards ceremony
18:35	Award presentation for POSTERS
18:50	Award presentation for ORAL
19:05	Award presentation for metallography
19:20	Closing speech
19:30	Program closure

Theme: Raw Materials

Session 1 (Hall 1) <Date: 14.11.2021>

Timing			Name	Organization
	Session Chair		Dr Asim Kumar Mukherjee	Tata Steel
14:30 - 15:00	Keynote-1	Technological advances in meeting the Challenges of provisioning metals for sustaining societal development	Prof. Khanindra Pathak	IIT Kharagpur
15:00 - 15:30	Keynote-2	Advanced modelling and simulation of comminution using the Discrete Element Method	Prof. Luís Marcelo Tavares	Federal University of Rio de Janeiro
15:30 - 15:45	Speaker-1	Improving Ball mill performance by optimising the Sizing cyclone for reducing the recirculation loads	Ratnakar Bonda	JSW Steel Limited
15:45 - 16:00	Speaker-2	Characterization of Suitable Backfill Material and Filling Technique for Pumped Slurry Blind Backfilling in Underground Coal Mines	Rohot Roy	IIT Kharagpur
16:00 - 16:15	Speaker-3	Blending, Processing and Pelletization of Low Grade Iron Ore: The JSW Context	Shyam Sundar Yadav	JSW Steel Limited
16:15 - 16:30	Speaker-4	New opportunities for recycling LD sludge in an integrated steel plant	Amit Kumar	Tata Steel
16:30 - 16:45	BREAKOUT ROOM			

Session 2 (Hall 1) <Date: 14.11.2021>

Timing			Name	Organization
	Session Chair		Dr. Surendra Biswal	Tirupati Graphene and MRC, Bhubaneswar
16:45 - 17:15	Keynote-1	Process intensification in the separation of fine minerals	Prof. Kevin Galvin	University of Newcastle
17:15 - 17:30	Speaker-1	To enhance the operational efficiency of blast furnaces through standardization of fine coal characterization	Vijay Tiwari	Tata Steel
17:30 - 17:45	Speaker-2	CFD modelling of flow of slurry through Pipelines	Sachin D Raj	Tata Steel
17:45 - 18:00	Speaker-3	Characterisation studies on iron ore pellet concentrate fines for feasibility of pressure filtration test	Ratnakar Bonda	JSW Steel Limited
18:00 - 18:15	Speaker-4	Wollastonite (CaO.SiO ₂) as a CaO source in Iron Ore Pellet Making	Shaik Mahaboob Basha	Tata Steel
18:15 - 18:30	Speaker-5	Enhancement in Fe(%) in Iron Ore Pellets & Reduction of Bentonite addition by using Organic Binder	Pyarilal S	JSPL, Barbil, Odisha

18:30 - 18:45	Speaker-6	Study on effect of coal blend dilatation on coke quality and oven safety	Deepak Kumar	Coke Plant, Tata Steel
18:45 - 19:00	BREAKOUT ROOM			

Session 3 (Hall 1) <Date: 15.11.2021>

Timing			Name	Organization
	Session Chair		Prof. S Bhattacharya	ISM Dhanbad
8:30 - 9:00	Keynote-1	Bulk Solids in Iron and Steel Making Industry: Storage, Flow and Handling	Prof. Bin Chen	University of Newcastle
9:00 - 9:30	Keynote-2	New Horizons for CO ₂ Utilization	Prof. S. Komar Kawatra	Michigan Tech
9:30 - 9:45	Speaker-1	Feasibility study on installation of 350 TPH coal handling plant in Kathautia Opencast Coal Mine: An overview on moisture reduction	Arunabha Duari	Hindalco Industries
9:45 - 10:00	Speaker-2	Optimisation of Coke making Operations to reduce Coke spillages	Abhi Anant Kinlekar	JSW Steel Limited
10:00 - 10:15	Speaker-3	Implementation of Coal Quality Management System (CQMS) in Kathautia Opencast Coal Mine (KOCCM)	Rahul Mitra	Hindalco Industries
10:15 - 10:30	Speaker-4	Rheological Properties of individual coals: A real time data used for blend formulation, case study of Rourkela Steel Plant	S Mishra	RDCIS, SAIL
10:30 - 10:45	BREAKOUT ROOM			

Theme: Industry 4.0**Session 1 (Hall 2) <Date: 14.11.2021>**

Timing		Name	Organization
	Session Chair	Mr. Manish Kumar Singh	Tata Steel
14:30 - 15:00	Keynote-1	'Whither AI: Artificial or Augmented Intelligence? Can we do more'	Prof. Ravi Gudi IIT Bombay
15:00 - 15:30	Keynote-2	Application of AI lifts quality control to the next level	Mr. Lucas Corts Smart Steel Technology, Germany
15:30 - 15:45	Speaker-1	Dynamic online estimation of chaos control parameters from process data of a high temperature chemical reaction system	Prof. B Deo IIT, Bhubaneswar
15:45 - 16:00	Speaker-2	Winning customer trust through end to end optimization modelling by leveraging Data science	Avijit Halder Tata Steel
16:00 - 16:15	Speaker-3	Digital Transformation of Sinter Plant-III, Bhilai Steel Plant	Akhil U K SAIL
16:15 - 16:30	Speaker-4	To estimate the energy consumption of CONARC® taking into account feed mix properties using Statistical Modelling	Parul K JSW
16:30 - 16:45	BREAKOUT ROOM		

Session 2 (Hall 2) <Date: 14.11.2021>

Timing		Name	Organization
	Session Chair	Mr. Praveen V Thampi	Tata Steel
16:45 - 17:00	Speaker-1	A proven technology to measure path of burden trajectory falling from rotary chute of bell less top system in Blast Furnace	Ujjwal Chaudhari Tata Steel
17:00 - 17:15	Speaker-2	Coal Blend Optimization and Simulation using Machine Learning to Predict Coke Quality	Satish Agarwal Affine Analytics
17:15 - 17:30	Speaker-3	Computer Vision Based Machine Learning (CVML) Technology to enhance Production in Steel Melting Shop	Gedela Praveen JSW
17:30 - 17:45	Speaker-4	Steel ladle life prediction model building by optimising operating parameters	Goutam Ghosh Tata Steel

17:45 - 18:15	Keynote-1	Digitalization for Advanced Steel Manufacturing through Simulation, Visualization and Machine Learning	Prof. Chenn Q. Zhou	Director, Steel Manufacturing Simulation and Visualization Consortium
18:15 - 18:45	Keynote-2	A new data/AI platform for accelerated materials innovation	Prof. Surya R Kalidindi	Georgia Institute of Technology, Atlanta, GA 30332
18:45 - 19:00	BREAKOUT ROOM			

Session 3 (Hall 2) <Date: 15.11.2021>

Timing			Name	Organization
	Session Chair		Prof. B. Deo	IIT Bhubaneswar
8:30 - 9:00	Keynote-1	Hybrid Digital Twins – The role of physics informed machine learning	Dr. Srinivas Mohan	Ansys
9:00 - 9:30	Keynote-2	Implementing Industry 4.0 & Beyond	Raghudeep Madineni	Ather Energy
9:30 - 9:45	Speaker-1	Innovative Wireless Technology in SAIL Plants: Recent Efforts & Future Applications	Anup Prasad	SAIL
9:45 - 10:00	Speaker-2	Dynamix Model to optimize Hot metal in Steel Melting Shop	Rohit Singh	JSW
10:00 - 10:15	Speaker-3	Machine Learning Techniques for Fractographic Analysis	Vartika Pathak	IIT Indore
10:15 - 10:30	Speaker-4	Prevention of Rank-A Customer complaints through use of digital signature of mill process parameters	Ramesh Shankar	Tata Steel
10:30 - 10:45	BREAKOUT ROOM			

Session 4 (Hall 2) <Date: 15.11.2021>

Timing			Name	Organization
	Session Chair		Mr. Avtar Singh Saini	Tata Steel
10:45 - 11:15	Keynote-1	Importance of Data and AI in Manufacturing Ecosystem	Manas Agarwal	Ansys
11:15 - 11:45	Keynote-2	Digitalization and Industry 4.0	Kishan Sreenath	Volvo Group
11:45 - 12:00	Speaker-1	Defect Detection in Production Line using AI Computer Vision Model	Ravi Teja	Affine Analytics
12:00 - 12:15	Speaker-2	Identification of short rebars on sorting table using novel image processing technique	Pankaj Kumar	Tata Steel
12:15 - 12:30	Speaker-3	Galvanies: Unique model to improve surface quality in continuously galvanised product	Dinesh Kumar	Tata Steel
12:30 - 12:45	Speaker-4	Fully automatic light up of Twin Shaft lime kiln	Abhishek Choudhary	Tata Steel
12:45 - 13:00	BREAKOUT ROOM			

Theme: Products**Session 1 (Hall 3) <Date: 14.11.2021>**

Timing		Name	Organization
	Session Chair	Prof. S Sankaran	IIT Chennai
14:30 - 15:00	Keynote-1	Phase transformations in high strength steels	Prof. Shiv Brat Singh IIT Kharagpur
15:00 - 15:15	Speaker-1	Optimization of mechanical properties of SAE 9254 through heat treatments	Mohsin Hasan University of Hyderabad
15:15 - 15:30	Speaker-2	Development of fire-resistant steel structurals at Durgapur Steel Plant	P. Saravanan SAIL
15:30 - 15:45	Speaker-3	Synergistic Effect of Alloy design and Hot Rolling Parameters on Enhancing DWTT properties of X70 line pipe steel	Karthik Vasan Badrinarayan AMNS
15:45 - 16:00	Speaker-4	Next Generation Ultra High Strength Hot forming Steel	Nemai Gorain Tata Steel
16:00 - 16:15	Speaker-5	Effect of Composition and Microstructure on Fracture Toughness of Hot Rolled High Strength Steels	Prabhat Kumar Rai JSW
16:15 - 16:30	Speaker-6	Development of SAE9254 Wire Rods for Suspension Spring Processing Through Induction Heating and Water Quenching Process	T Bhaskar TSLP
16:30 - 16:45	BREAKOUT ROOM		

Session 2 (Hall 3) <Date: 14.11.2021>

Timing		Name	Organization
	Session Chair	Dr. R.N. Singh	BARC
16:45 - 17:15	Keynote-1	Additive manufacturing of metallic materials: Processing-microstructure-property relationship	Prof. Satyam Suwas IISc, Bangalore
17:15 - 17:30	Speaker-1	Establishing processing-microstructure-texture-mechanical behaviour paradigm in DP600 steel	Deepak Paliwal IIT Kanpur
17:30 - 17:45	Speaker-2	Bridging microstructure and crystallography with the micromechanics of cleavage fracture in a lamellar pearlitic steel	Rakesh Kumar Barik IIT Kharagpur
17:45 - 18:00	Speaker-3	Study on cold formability of beta titanium alloy	Karthick Surya VSSC
18:00 - 18:15	Speaker-4	Development of Dump Mesh Component for Missile Applications using PBF based 3D Printing Technology	Srinivas DRDO

18:15 – 18:30	Speaker-5	Development of high strength weather-resistant cold rolled coils for solar photovoltaic panel application	Bhawna Khalkho	SAIL
18:30 – 18:45	Speaker-6	Hot deformation studies of non-oriented electrical steel through gleeble	Arbind	JSW
18:45 - 19:00	BREAKOUT ROOM			

Session 3 (Hall 3) <Date: 15.11.2021>

Timing			Name	Organization
	Session Chair		Dr. Vinod Kumar	RDCIS, Ranchi
8:30 - 9:00	Keynote-1	On production, processing, properties and applications of hot rolled HSLA steels	Dr. Sujoy S. Hazra	JSW
9:00 - 9:15	Speaker-1	Effects of multiscale porosity and pore interconnectivity on in vitro and in vivo degradation and biocompatibility of Fe-Mn-Cu scaffold	Santanu Mandal	IIT Kharagpur
9:15 - 9:30	Speaker-2	Effect of aging temperatures on pitting corrosion behaviour of hot rolled high nitrogen high manganese austenitic stainless steels in natural seawater condition	Krishna Kumar Kanagarajan	PSG Coimbatore
9:30 - 9:45	Speaker-3	Deformation Behaviour of EN25B Forged Steels: Effect of Non-metallic Inclusions	Vasundhara Singh	IIT Kharagpur
9:45 - 10:00	Speaker-4	COLORS of SCALE: A fundamental study of Black and Red scale defect in hot rolled products	Sachin Pawar	Tata Steel
10:00 – 10:15	Speaker-5	Approach to Develop end to end Solution in API X70 Grade Line Pipe Steel	Pradeep Agarwal	JSW
10:15 – 10:30	Speaker-6	Cost effective Process Route for development of 430 Ferritic Stainless Steel	Riya Kumari	JSL
10:30 - 10:45	BREAKOUT ROOM			

Session 4 (Hall 3) <Date: 15.11.2021>

Timing			Name	Organization
	Session Chair		Prof. Debalay Chakrabarty	IIT Kharagpur
10:45 - 11:00	Speaker-1	Microstructure and Mechanical Properties of Additively Manufactured Al2O ₃ with Different Heat Treatments	Saurabh Kumar	IISC Bangalore
11:00 - 11:15	Speaker-2	Effect of Purging Gas on Ambient and Cryogenic Properties of AISI 321 weldments	Neethu N	IPRC
11:15 - 11:30	Speaker-3	Influence of processing parameters on formability characteristics of Cold Rolled and Annealed Extra Deep Drawing steel sheet	Deepa M	SAIL
11:30 - 12:45	Speaker-4	Yield Improvement of Investment casting through Optimization of Gating and Riser system for aerospace applications	Elamurugu S	VSSC
11:45 - 12:00	Speaker-5	Metallurgical, Technological and Heat Treatment requirement for Wheel Rolling to produce forged Rolled Rail Wheels - A step towards Atmanirbhar Bharat	Neeraj Kumar	MECON
12:00 - 12:15	Speaker-6	Effect of scanning speed on eddy current inspection of 304L tubes	Arun Dwivedi	VSSC
12:15 - 12:30	Speaker-7	Fatigue and Pitting Failure of Blast Furnace Skip Winch Gear	Naveen Kumar	JSW
12:30 – 12:45	Speaker-8	Development of Wire Rods for Higher Torsion & Reverse Bend Properties in Motor Tyre Bead Wires	Sandeep Kumar	JSPL
12:45 - 13:00	BREAKOUT ROOM			

Theme: Non-Ferrous Metals

Session 1 (Hall 4) <Date: 14.11.2021>

Timing			Name	Organization
	Session Chair		Prof. Arghya Majumder	Kazi Nazrul University, Asansol
14:30 - 15:00	Keynote-1	Developments in Extractive Metallurgy of Titanium and Magnesium	Dr. Nagesh CHRV Changati	DMRL, Hyderabad
15:00 - 15:15	Speaker-1	Non-conventional reductive acid leaching of manganese from low grade ore using corn husk	Barsha Dash	CSIR-IMMT, Bhubaneswar
15:15 - 15:30	Speaker-2	Development of Bioleaching in Nickel Recovery from Laterite Ores	Prof. L.B. Sukla	Biofuels and Bioprocessing Research Center, ITER-Bhubaneswar
15:30 - 15:45	Speaker-3	Achieving benchmark current efficiency in Zinc Hydro smelter cell house	Subrata Mondal/Vijay Rana	Hindustan Zinc Limited
15:45 - 16:00	Speaker-4	Production of Chemical Manganese Dioxide from Low Grade Manganese Ore	Saurabh Shekhar	CSIR-NML, Jamshedpur
16:00 - 16:15	Speaker-5	Modelling of Heap Leaching	G.V.A. Chaitanya	IISC, Bangalore
16:15 - 16:30	Speaker-6	Extraction of copper from chalcopyrite concentrates via surfactant assisted chlorination process	R. Choudhari	CSIR-NML, Jamshedpur
16:30 - 16:45	BREAKOUT ROOM			

Session 2 (Hall 4) <Date: 14.11.2021>

Timing			Name	Organization
	Session Chair		Prof. Ashok Kumar	NIT Jamshedpur
16:45 - 17:15	Keynote-1	Translational Materials Research in Energy Storage Technologies	Dr. Tata Narasinga Rao	ARCI, Hyderabad
17:15 - 17:30	Speaker-1	Effect of diffusion Pt-Aluminide and overlay NiCoCrAlY bond coats on tensile properties of DS Ni-base superalloy CM247LC	Chandrakant Parlikar	DMRL, Hyderabad
17:30 - 17:45	Speaker-2	Modelling microstructural evolution during homogenization of AA3003 aluminum alloys	Anurag	TCS, Pune
17:45 - 18:00	Speaker-3	Multiscale simulations of deformation behaviour of Ni based alloy 690 considering grain boundary effect	S. Chandra	BARC

18:00 – 18:15	Speaker-4	Influence of microstructure and texture on the in-vitro bio-corrosion behavior of hard-plate hot forged Mg-4Zn-0.5Ca-0.16Mn (wt. %) alloy	Partha Duley	IIT Kharagpur
18:15 – 18:30	Speaker-5	Study on oxidation kinetics of Uranium & U-10Mo alloy in air	R. Rakesh	BARC
18:30 – 18:45	Speaker-6	Direct energy deposition of a low modulus TNZT alloy for biomedical applications	Saurabh Kumar Gupta	IISC, Bangalore
18:45 – 19:00	Speaker-7	Effect of ageing on coarsening kinetics, solute partitioning, misfit and low cycle fatigue properties in Haynes 282	Shreya Mukherjee	IIT Kharagpur
19:00 – 19:15	Speaker-8	Mechanical behavior of Ti-Ni-Fe & Ti-Fe-Co based B2 Pseudo Binary intermetallic at different length scales	Subha Sanket Panda	IIT Kanpur
19:15 – 19:30	Speaker-9	Effect of ODS on the Transverse Rupture Strength and Compressive Strength of W-Ni-Cu Heavy Alloys	Navindra Shekhar Shakunt	IIT Kanpur
19:30 – 19:45	Speaker-10	Processing of FCC Titanium through Hot Rolling	Vaibhav Gaur	CSIR-NML, Jamshedpur
19:45 – 20:00	Speaker-11	Preparation of Neodymium Iron Boron Alloy (Nd ₂ Fe ₁₄ B) by Molten Salt Aided Metallothermic Reduction Diffusion Technique	R.S. Prasannakumar	CSIR-Central Electrochemical Research Institute
20:00 - 20:15	BREAKOUT ROOM			

Session 3 (Hall 4) <Date: 15.11.2021>

Timing			Name	Organization
	Session Chair			
8:30 - 9:00	Keynote-1	Additive Manufacturing of non-ferrous alloys – Prospects and Challenges	Dr. Govind	VSSC
9:00 - 9:15	Speaker-1	Effect of pre weld heat treatment conditions on mechanical properties of inconel x 750 alloy weldments	K. Ganeshpandiyan	ISRO
9:15 - 9:30	Speaker-2	Study on role of RE elements addition in Deformation Behaviour of Magnesium alloy	Gaurav Gupta	IIT Kanpur
9:30 - 9:45	Speaker-3	Effect of welding process on microstructure, mechanical properties and corrosion behaviour of AA2519 Al-alloy	G Siva Prasad	Andhra University
9:45 - 10:00	Speaker-4	A Study on Strength and Microstructure Properties of Welded Russian Equivalents of Rene 41 and 12-10PH steel	Vishwajt Kumar	ISRO
10:00 – 10:15	Speaker-5	Effects of in situ Al ₃ Ti Composite Particles on Aluminium Foams	M. Rakesh	IIT Bombay
10:15 – 10:30	Speaker-6	Development of High Entropy Nano Slag Particulates reinforced AA7075 Nano Composites	J. Manasi Esther	Andhra University
10:30 - 10:45	BREAKOUT ROOM			

Session 4 (Hall 4) <Date: 15.11.2021>

Timing			Name	Organization
	Session Chair		Prof. L.B. Sukla	Biofuels and Bioprocessing Research Center (BBRC)
10:45 - 11:00	Speaker-1	Studies on production of ferro-moly alloy from spent catalyst residues	Sanjay Agarwal	CSIR-NML, Jamshedpur
11:00 - 11:15	Speaker-2	Reclamation of lithium, cobalt and manganese from spent toys batteries	Pankaj Kumar Choubey	CSIR-NML, Jamshedpur
11:15 - 11:30	Speaker-3	Removal of Barium Sulphate Mould Wash from Copper Anode to Improve Electrorefining Operations	Lakshmikanth Reddy	Hindalco Industries Ltd
11:30 - 12:45	Speaker-4	Development of feasible process for the recovery of precious metals from e-waste	Rekha Panda	CSIR-NML, Jamshedpur
11:45 - 12:00	Speaker-5	Possibility of Recovery and Reuse of Filter Aid in Bayer Plant	Amol U. Mankar	Hindalco Industries Ltd
12:00 - 12:15	Speaker-6	Chemical pre-treatment of integrated circuits (ICs) of discarded mobile phone to get high grade PMs concentrate	Om Shankar Dinkar	CSIR-NML, Jamshedpur
12:15 - 12:30	Speaker-7	Electrometallurgical route of extraction of precious metals from e-waste	Dipali	NIT Jamshedpur
12:30 – 12:45	Speaker-8	Recycling of scrap Nd-Fe-B permanent magnets to reclaim REMs Salt	Nityanand Singh	CSIR-NML, Jamshedpur
12:45 - 13:00	BREAKOUT ROOM			

Theme: Energy, Environment and Waste Utilization

Session 1 (Hall 5) <Date: 14.11.2021>

Timing		Name	Organization
	Session Chair	Dr. Supriya Sarkar	Tata Steel
14:30 - 15:00	Keynote-1	Membrane S&T in Energy, Environment & water utilization	Dr. Ulhas Kharul CSIR-National Chemical Laboratory, Pune
15:00 - 15:30	Keynote-2	Advanced Technology for Wastewater Sludge Treatment: Thermal Hydrolysis Process (THP)	Dr. Indra N Mitra Cambi (Europe)
15:30 - 16:00	Keynote-3	Graphene composite based approaches for water remediation and sensing	Dr. Shobha Shukla IIT Bombay
16:00 - 16:15	Speaker-1	Introduction of Improved Bottom Quenching Facility for Combined Coke Quenching in Quenching Wagon	Ujjal Kumar Mondal R&D, Sail
16:15 - 16:30	Speaker-2	Efficient Reutilization of Solid Waste at JSPL, Raigarh	Rupak Ranjan Jindal Steel & Power Limited, Raigarh, Chhattisgarh
16:30 - 16:45	BREAKOUT ROOM		

Session 2 (Hall 5) <Date: 14.11.2021>

Timing		Name	Organization
	Session Chair	Prof. Kamalakannan Kailasam	Institute of Nano Science and Technology
16:45 - 17:15	Keynote-1	Recovery of value-added materials from industrial and domestic waste	Dr. Menaka Jha Institute of Nano Science and Technology
17:15 - 17:30	Speaker-1	Effect of Extrusion on the Physical and Mechanical Properties of Briquette made with Composite Fines of Blast furnace Flue dust and Iron ore Fines	Susanta Pramanik NIT Durgapur
17:30 - 17:45	Speaker-2	Utilization of EAF slag in concrete in place of natural aggregate	Prerana Kotagi Arcelor mittal Nippon steel India

17:45 - 18:00	Speaker-3	Enhancing solid waste utilization through sintering operation	M.K. Singh	SAIL
18:00 – 18:15	Speaker-4	Use of LD slag in BOF Converters of Rourkela Steel Plant to increase Heat Weight and Reduce Total Metallic Input	Bibhudatta Mishra	SAIL
18:15 - 18:30	BREAKOUT ROOM			

Session 3 (Hall 5) <Date: 15.11.2021>

Timing			Name	Organization
	Session Chair		Dr. Shobha Shukla	IIT Bombay
8:30 - 9:00	Keynote-1	Metals for Solar Energy Harvesting and Carbon dioxide Utilization	Dr. Vivek Polshettiwar	Tata Institute of Fundamental Research
9:00 - 9:30	Keynote-2	To what extent can biocarbon replace coke in the blast furnace?	Dr. Colin Snape	EPSRC Centre of Doctoral Training in CCS and Cleaner Fossil Energy
9:30 - 10:00	Keynote-3	Enhanced Atomic Ordering and Nanostructuring Boost the Thermoelectric Performance to an Ultra-high Value	Dr. Kanishka Biswas	JNCASR, Bangalore
10:00 - 10:15	Speaker-1	Bauxite residue management by leveraging technical advancement for optimal land usage towards Sustainable, Environmental friendly operations	Vasudev Ghanta	Utkal Alumina International Ltd.
10:15 - 10:30	Speaker-2	Production of bio-coal by the hydrothermal carbonization of biomass	Piyali Dhar	Tata Steel
10:30 - 10:45	BREAKOUT ROOM			

Session 4 (Hall 5) <Date: 15.11.2021>

Timing			Name	Organization
	Session Chair		Dr. Vivek Polshettiwar	Tata Institute of Fundamental Research
10:45 - 11:15	Keynote-1	Low Emission Iron and Steel Making	Dr. Sharif Jahanshahi	Meta-Logical Solutions
11:15 - 11:45	Keynote-2	Carbon Capture and Utilization in Metal Industry – Outlook and Implications	Dr Malti Goel	Climate Change Research Institute (CCRI)
11:45 - 12:15	Keynote-3		Mr. Aniruddha Sharma	Carbon Clean Solutions
12:15 - 12:30	Speaker-1	Improved Burner Efficiency of Soaking Pits at Alloy Steel Plant, Durgapur	I.N.P. Gupta	SAIL
12:30 - 12:45	Speaker-2	Energy Efficient Composite Lining for BF Tuyere stock System	Aman Kumar	Tata Steel
12:45 - 13:00	BREAKOUT ROOM			

Session 5 (Hall 5) <Date: 15.11.2021>

Timing			Name	Organization
	Session Chair		Dr. Menaka Jha	Institute of Nano Science and Technology
13:30 - 14:00	Keynote-1	Nanoporous Heptazine based Polymeric Materials for Renewable Energy Applications: Our Technological Efforts	Prof. Kamalakannan Kailasam	Institute of Nano Science and Technology
14:00 - 14:30	Keynote-2	Covalent Organic Frameworks and Supramolecular Nano-Synthesis	Prof. Rahul Banerjee	Indian Institute of Science Education and Research (IISER) Kolkata
14:30 - 14:45	Speaker-1	Cold briquetting of CRM oily sludge for in house utilisation	Sivalingaraju Barisetty	JSW
14:45 - 15:00	Speaker-2	Studies on replacement of Sodium Hypochlorite with other chemicals for Cyanide reduction in Coke Oven effluent	S.N. Singh	R&D, SAIL
15:00 – 15:15	Speaker-3	Dissolution of Rare Earths Coal Fly Ash using Deep Eutectic Solvents	Ram Karan	BARC

15:15 - 15:30

BREAKOUT ROOM

Theme: Advances in Materials Science and Technology

Session 1 (Hall – 6) <Date:14.11.2021>

Timing			Name	Organization
	Session Chair		Prof. N.K. Mukhopadhyaya	IIT Varanasi
14:30- 15:00	Keynote-1	Excitements and Challenges in High Entropy Alloy Research	Prof. B. S. Murthy	IIT Hyderabad
15:00 - 15:15	Speaker-1	Constitutive modelling of grain boundary strengthening characteristics in Complex Concentrated Alloys	Saumya R Jha	IIT Kanpur
15:15 - 15:30	Speaker-2	Polarization Light Microscopy for Characterizing Micro-Texture in Unidirectionally Rolled Ti64 Plate – Structure Property Correlations	Barna Roy	Pratt-Whitney
15:30 - 15:45	Speaker-3	Sorption studies of cerium as surrogate material for plutonium using nitrogen doped graphene nanowalls	Sri Datta Chaitanya	BARC
15:45 - 16:00	Speaker-4	Effect of Microstructural Constituents on Yield Strength in Ultrafine-grained Ni-Fe alloy	Shavi Agarwal	IISC Banglore
16:00 - 16:15	Speaker-5	Effect of process parameters on evolution of CSL boundaries in 316LN SS for enhancing high temperature mechanical properties	D P Rao Palaparti	IGCAR
16:15 - 16:30	Speaker-6	Simulation guided grain refinement studies on as-cast multicomponent alloy	Rahul Kumar	IITISM Dhanbad
16:30 – 16:45	BREAKOUT ROOM			

Session 2 (Hall – 6) <Date:14.11.2021>

Timing			Name	Organization
	Session Chair		Dr. S. Tarafder	
16:45 - 17:00	Speaker-1	Microstructural Characterization to understand the high temperature mechanical response of Additively manufactured IN718	Dheepa Srinivasan	Pratt-Whitney
17:00 - 17:15	Speaker-2	Elucidating Laser Additive Manufacturing of compositionally graded Stainless Steel-Copper bulk Structures	S Yadav	RRCTA Indore
17:15 - 17:30	Speaker-3	Design Optimization of PLA (Polylactic Acid) Lattice in 3d printing (FDM)	Rahul Jain	NIT Raipur
17:30 - 17:45	Speaker-4	Heat treatment studies on Inconel 718 alloy processed by selective laser melting (SLM) technique	S. Anurag	IIT Madras
17:45 - 18:00	Speaker-5	Post processing effects on Additively Manufactured Inconel 718 Superalloy	Subhendu Naskar	IIT Hyderabad
18:00 - 18:15	Speaker-6	Comparison of corrosion behavior of Additively manufactured Ti-6Al-4V alloys having different meso structure	Tulika Dixit	IIT Hyderabad

18:15 – 18:45	Keynote-1	An introduction to the vast virtual world of additive manufacturing	Prof. T. Debroy	Penn State
18:45 – 19:00	BREAKOUT ROOM			

Session 3 (Hall – 2) <Date:15.11.2021>

Timing			Name	Organization
	Session Chair		Prof. Amredra Kumar Singh	IIT Kanpur
13:30 - 13:45	Speaker-1	Computation of elastic constants and generalized stacking fault energy of pure metals and alloys using first principal calculations	Mukesh Kumar Das	IIT Kanpur
13:45 - 14:00	Speaker-2	A novel mean field dislocation density reliant physical model to predict the creep behavior of 304HCu austenitic stainless steel	Surya D. Yadav	IITBHU
14:00 - 14:15	Speaker-3	Development of New Ni-Ti based Shape Memory Alloys using Machine Learning Approach	KNS Pavan Kumar	DRDO
14:15 - 14:30	Speaker-4	Modelling Hole Expansion Ratio of Dual-Phase Steels	Rohit K Yadav	IIT Bombay
14:30 - 14:45	Speaker-5	Traction separation curve for Ni base hardfacing alloy-substrate interface grain boundary by ab initio calculations	Prince Joseph	IGCAR
14:45 - 15:00	Speaker-6	Modelling Microstructure Evolution during Recrystallization using Cellular Automata	S. G. Nagarajan	IIT Bombay
15:00 – 15:30	Keynote-1	ICME workflows and the role of microstructure simulations	Prof. Gandham Phanikumar	IIT Madras
15:30 – 15:45	BREAKOUT ROOM			

Session 4 (Hall – 2) <Date:15.11.2021>

Timing			Name	Organization
	Session Chair		Prof. G.G. Roy	IIT Kharagpur
15:45 - 16:00	Speaker-1	Study on metallurgical and mechanical properties of EB welded heat treated super martensitic stainless steel (CA6NM) for cryogenic applications	E. Murugan	NIT Trichy
16:00 - 16:15	Speaker-2	A Study on Electron Beam Welding of Hermetic Feed Through Connectors with Pressure Vessels	Ujjain Vaidya	ISRO
16:15 - 16:30	Speaker-3	Integrated experimental and simulation study to modify the weld thermal cycle in Inconel 718 GTA welds	Shambhu Kushwaha	IITISM Dhanbad

16:30 - 16:45	Speaker-4	Predicting cracking susceptibility in welded components using computational modeling	Harris Daniel	Paanduv Applications Private Limited
16:45 - 17:00	Speaker-5	Influence of Welding Processes on Microstructure and Tensile properties of Weld joints of Beta (Titan-44) alloy	J. Jhansi	MGIT Hyderabad
17:00 - 17:15	Speaker-6	Microstructure characterization and bonding evaluation of zirconium-titanium- stainless steel trimetallic clad joints using explosive welding	Kannan Ramaswamy	NIT AP
17:15 - 17:45	Keynote-1	Joining of advanced materials for defence applications-techniques and challenges	Dr. G. M. Reddy	DMRL
17:45 - 18:00	BREAKOUT ROOM			

Session 5 (Hall – 4) <Date:15.11.2021>

Timing			Name	Organization
	Session Chair		Prof. P. P. Bhattacharya	IIT Hyderabad
13:30 - 13:45	Speaker-1	Experimental Determination of Quaternary Isotherm of Fe-Ni-Co-Cu by Diffusion Couple Technique	B. Samantaray	IIT Kanpur
13:45 - 14:00	Speaker-2	Low temperature densification of ZrB ₂ through spark plasma sintering using milled Zr+B as sintering aid	Revathi Gorle	IIT Nagpur
14:00 - 14:15	Speaker-3	Phase stability of a novel HCP high entropy alloy	Sushil Yebaji	IIT Hyderabad
14:15 - 14:30	Speaker-4	Effect of Si addition on phase evolution and microstructure in Y ₂ O ₃ dispersed Tungsten (W) and W-based alloys synthesized via mechanical alloying and consecutive conventional sintering	Vadla Suman	NIT Rourkela
14:30 - 14:45	Speaker-5	Impact of extrinsic and intrinsic factors on the indentation behavior of a dual phase steel-a finite element modeling study	Soudip Basu	IIT Bombay
14:45 - 15:00	Speaker-6	Microstructure and properties of cost-effective AlCrFe ₂ Ni ₂ high entropy alloy processed by severe cold-rolling and annealing	B. Tripathy	IIT Hyderabad
15:00 - 15:15	Speaker-7	Statistical analysis on single versus successive pop-ins in nanoindentation tests of Zr-based bulk metallic glass	Priyanka Saini	IIT Delhi
15:15 - 15:30	Speaker-8	Phase Evolution of AlCoCrFeNi High Entropy Alloy	Sahil Rohilla	IIT Hyderabad
15:30 - 15:45	BEAKOUT ROOM			

Session 6 (Hall – 4) <Date:15.11.2021>

Timing			Name	Organization
	Session Chair		Dr. Bikash Maji	BARC
15:45 - 16:00	Speaker-1	A novel method to create a gradient microstructure in OFHC copper	Deepak Paliwal	IIT Kanpur
16:00 - 16:15	Speaker-2	Freestanding High Entropy Alloy Thin Film	R. K. Dehury	IIT Gandhinagar
16:15 - 16:30	Speaker-3	Application of Body-diagonal diffusion couple technique and Square root diffusivity approach to investigate interdiffusion behaviour in quaternary and quinary systems	Vivek Verma	IIT Kanpur
16:30 - 16:45	Speaker-4	On effect of electron concentration, energy level, and atomic mismatch on quantitative phase prediction in high entropy alloys (HEAs)	Ayush Sourav	DIAT Pune
16:45 - 17:00	Speaker-5	Phase stability and magnetic properties of Co ₂ FeAlMnSi HEA	D. L. Shashank	IIT Hyderabad
17:00 - 17:15	Speaker-6	Segregation of alloying elements at prior austenite grain boundaries in boron added modified 9Cr-1Mo steel studied by atom probe tomography	S. Sampreeth	IGCAR
17:15 - 17:30	Speaker-7	Microstructure evolution of AlCoCrFeNi high entropy alloy during electrospark deposition	R. K. Bhupal	IIT Hyderabad
17:30 - 17:45	Speaker-8	Microstructure, Texture and Hardness evolution in high pressure torsion of Fe ₄₀ Mn ₄₀ Co ₁₀ Cr ₁₀ High Entropy Alloy	K. Kishore	Tata Steel
17:45 – 18:00	BEAKOUT ROOM			

Session 7 (Hall – 5) <Date:15.11.2021>

Timing			Name	Organization
	Session Chair		Dr. C.P. Paul	
15:45 - 16:00	Speaker-1	Correlation Between Bending and Uniaxial Creep in Additively Manufactured AlSi10Mg Alloy	S. P. Singh	IISC Bangalore
16:00 - 16:15	Speaker-2	Characterization of Additively Manufactured Aluminum Alloys using Ultrasonic-based Non-Destructive Testing technique	A. K. Dube	IISC Bangalore
16:15 - 16:30	Speaker-3	Microstructure and Mechanical Properties of Additively Manufactured Al ₂ O ₃ with Different Heat Treatments	Saurabh Kumar	IISC Bangalore
16:30 - 16:45	Speaker-4	Research and Experiments in Non-Destructive Testing	S. V. S. B. L. Sarma	Retired
16:45 - 17:00	Speaker-5	Simulation methodology for evaluating the role of surface roughness on the high cycle fatigue life of Additively manufactured IN718	D. K. Mahajan	IIT Ropar
17:00 - 17:15	Speaker-6	Grain size and grain boundary misorientation distribution effects on thermal stability of nanocrystalline materials	Srikant Gollapudi	IIT Bhubaneshwar
17:15 - 17:30	Speaker-7	Development of a Ring Tensile Test Technique for Small Diameter Tube	Ulaganathan	IGCAR

17:30 - 17:45	Speaker-8	On the differences in the shear band characteristics between a binary Pd-Si metallic glass and nanoglass	Abhinav Sharma	IIT Indore
17:45 – 18:00	BEAKOUT ROOM			

Session 8 (Hall – 6) <Date:15.11.2021>

Timing			Name	Organization
	Session Chair		Dr. Arvind Sinha	CSIR-NML, Jamshedpur
8:30 - 9:00	Keynote-1	Emergence of Resorbable Magnesium Based Implant: Road ahead for India	Prof. Manoj Gupta	National University of Singapore
9:00 - 9:15	Speaker-1	Design and Development of High Entropy Alloy Coatings for Orthopaedic Implants	Burla Aditya	IIT Hyderabad
9:15 - 9:30	Speaker-2	Fabrication of Mg porous metal structure through vapor phase dealloying	Rakesh Behera	IIT Gandhinagar
9:30 - 9:45	Speaker-3	Fe-Mn-Cu alloy as a novel antibacterial biodegradable material	Santanu Mandal	IIT Kharagpur
9:45 - 10:00	Speaker-4	Laser shock peening of Nitinol at high laser power densities and high overlap ratio	T. R. Dora	IIT Bhubaneswar
10:00 - 10:15	Speaker-5	Fabrication and characterization of Mg-Ca biodegradable alloy by powder metallurgy	Y. L. Reddy	CSIR-IMMT
10:15 - 10:30	Speaker-6	Effect of Heat Treatment Temperatures on the Microstructure & Mechanical Properties of Lithium Disilicate Glass Ceramics in Dental Restorations.	S. S. Sawant	COEP Pune
10:30 – 10:45	BEAKOUT ROOM			

Session 9 (Hall – 6) <Date:15.11.2021>

Timing			Name	Organization
	Session Chair		Prof. S.B. Singh	IIT Kharagpur
10:45 - 11:15	Keynote-1	MATERIALS FOR DEFENCE SYSTEMS	Samir V Kamat	DRDO
11:15 - 11:30	Speaker-1	Studies on Structure and Texture Evolution in B-added Modified 9Cr1Mo (P91) Steel with varying Boron concentration	Akhil Nair	IGCAR
11:30 - 11:45	Speaker-2	Influence of cell geometry on impact response of closed cell Al foam	S. N. Sahu	DMRL

11:45 - 12:00	Speaker-3	Achieving isotropic elastic modulus and hardness in anisotropic Ti-6Al-4V alloy	K. N. C. Kumar	IIT Roorkee
12:00 - 12:15	Speaker-4	Relative effect of B and N concentrations on the microstructural stability and creep properties of modified 9Cr-1Mo steel	R. Reejesh	IIT Kharagpur
12:15 - 12:30	Speaker-5	Mechanical behaviour of ultrafine-grained SS304L produced by reversion of strain induced martensite.	Saurav Sunil	BARC
12:30 - 12:45	Speaker-6	Development of Ring Forgings of 11Cr-10Ni-2Mo-1Ti PH Martensitic Stainless Steel for Rocket Motor Application	Bhavanish Singh	MIDHANI
12:45 – 13:00	BEAKOUT ROOM			

Session 10 (Hall – 6) <Date:15.11.2021>

Timing			Name	Organization
	Session Chair		Dr. Raghuvveer Singh	CSIR-NML, Jamshedpur
13:30 - 14:00	Keynote-1	Corrosion and its implications to Industry	Kallol Mondal	IIT Kanpur
14:00 - 14:15	Speaker-1	Effect of post-heat treatment on stress corrosion cracking behaviour of selective laser melted Inconel 718 alloy	Anoop S	VSSC
14:15 - 14:30	Speaker-2	Study on surface cracking and interfacial delamination of metallic coatings using a tension test	Deepesh Yadav	IIT Ropar
14:30 - 14:45	Speaker-3	Tribocorrosion Behaviour of Ultrafast Laser Surface Textured Ti-6Al-4V	M. Dileep	IIT Kharagpur
14:45 - 15:00	Speaker-4	Effect of process parameters on Co-deposition of Ni and Al in cold sprayed coatings of Ni/Al mixtures	T. Sivaji	IIT Madras
15:00 - 15:15	Speaker-5	Effect of annealing time on coating microstructure evolution and electrochemical behavior of galvanized interstitial-free steel	Harikrishna Kancharla	IIT Kanpur
15:15 - 15:30	Speaker-6	DC and Pulsed electrodeposition of Zn-Ni alloy coatings on IF steel substrate from acidic chloride baths	Rajdeep Mondal	Tata Steel
15:30 – 15:45	BEAKOUT ROOM			

Session 11 (Hall – 6) <Date:15.11.2021>

Timing			Name	Organization
	Session Chair		Dr. Marur	Tata Steel
15:45 - 16:15	Keynote-1	Present and future trends of composites research and product in India	Prof. B. C. Ray	NIT Rourkela

16:15 - 16:30	Speaker-1	The Quest for High-Strength and High-Ductility Composite Materials	Ajay Kumar	IIT Patna
16:30 - 16:45	Speaker-2	Fabrication of MWCNTs reinforced iron metal matrix composite fabricated by conventional powder metallurgy: effect of wet milling and MWCNTs content	B. S. Meher	NIT Rourkela
16:45 - 17:00	Speaker-3	Thermo-Fisher-1	Anup Biswas	Thermo-fisher
17:00 - 17:15	Speaker-4	Carbon fibre reinforced zirconium diboride (C _f -ZrB ₂) ultra high temperature ceramic matrix composite	S. S. N. Murthy	DMRL
17:15 - 17:30	Speaker-5	NiAl Intermetallic Composite – A Review On Process Property Co-Relationship	Sujata Panda	VSSUT, Burla, Sambalpur
17:30 - 17:45	Speaker-6	Mean-Field Based Micromechanical Models to Investigate the Effect of Reinforcement Shape and Orientation on the Effective Electroelastic Properties of Polymer Composites with Orthotropic Matrix	Neelam Mishra	IEST Shibpur
17:45 - 18:00	Speaker-7	Failure Analysis of Stud of Finishing Mill in Hot Rolling Mill	Piyas Palit	TATA Steel
18:00 – 18:15	BEAKOUT ROOM			

Session 12 (Hall – 8) <Date:15.11.2021>

Timing			Name	Organization
	Session Chair		Prof. Debdulal Das	IEST, Shibpur
15:45 - 16:00	Speaker-1	Thermo-fisher-2	Anup Biswas	Thermo-fisher
16:00 - 16:15	Speaker-2	Repeatability of Friction and Wear of Different Material Pairs at 1000 °C	Veera Gowda	DUCOM
16:15 - 16:30	Speaker-3	Novel hybrid sacrificial anodes based on high phosphorus pig iron and Zn for the cathodic protection of steel	N. K. Prasad	IIT Kanpur
16:30 - 16:45	Speaker-4	Corrosion resistance of Fe-based metallic glass composite coating: Role of amorphicity and porosity	S. K. Nayak	IIT Kanpur
16:45 - 17:00	Speaker-5	Creep damage model and its applicability to long-term life prediction of 9% Cr steels	J. Christopher	IIT Madras
17:00 - 17:15	Speaker-6	Characterization of fracture resistance of Modified 9Cr-1Mo steels	B. S. Dutt	IGCAR
17:15 - 17:30	Speaker-7	An Improved Method for Prediction of UTS from Small Punch Test	A. V. Pandey	IGCAR
17:30 - 17:45	Speaker-8	Titanium alloy development using machine learning guided by physical metallurgy principles	N. Khandelwal	IIT Kanpur
17:45 - 18:00	Speaker-9	Thermodynamic Re-Assessment of Nb-Zr Binary Alloy Systems Assisted by Ab-Initio Calculations	Ishu Yadav	IIT BHU
18:00 – 18:15	BEAKOUT ROOM			

Theme: Ferrous Process Metallurgy

Session 1 (Hall 7) <Date: 14.11.2021>

Timing			Name	Organization
	Session Chair		Indrajit Paul	Tata Steel
14:30 - 15:00	Keynote-1	Recent Innovative Development in Agglomeration	Dr. Jagannath Pal	CSIR-NML, Jamshedpur
15:00 - 15:15	Speaker-1	Effect of Temperature and Reducing Conditions on Physico-chemical Properties of Sinter	M.K. Jha	Tata Steel
15:15 - 15:30	Speaker-2	Improvement in Pellet Quality in Straight Gate Induration Furnace	Amit Mogale	JSW
15:30 - 15:45	Speaker-3	Effect of High Temperature Interaction between Sinter and Pellet on Softening-Melting Behavior	Pritesh Garg	Tata Steel
15:45 - 16:00	Speaker-4	Investigation on the Pilot Scale Pelletization Process Using Low Grade Iron Ore	Golap Chowdhury	SAIL
16:00 – 16:15	Speaker-5	Effect of Mixing Pre-heated Water on Granulation and Iron Ore Sinter Properties	Dharmendra Rajak	JSW
16:15 – 16:30	Speaker-6	Lowering the Sinter Return Fines at H blast furnace	Awadh Gupta	Tata Steel
16:30 - 16:45	BREAKOUT ROOM			

Session 2 (Hall 7) <Date: 14.11.2021>

Timing			Name	Organization
	Session Chair		Dr. Jagannath Pal	CSIR-NML, Jamshedpur
16:45 - 17:15	Keynote-1	Landscape of Trends and Technologies of Western Pelletizing Plants	Maycon Athayde	Pelletizing Tech Dev,Vale
17:15 - 17:30	Speaker-1	Factors Affecting Sinter Bed Permeability and its Impact on Other Process Parameters at Sinter Plant-3	Kevin Bhengra	SAIL
17:30 - 17:45	Speaker-2	Magnesium Oxide Based Product Spray Over Product Sinter to Reduce RDI	Aditya Sarda	Tata Steel
17:45 - 18:00	Speaker-3	Influence of Sinter MgO on Flame Front Properties and Sintering Process	Subhra Dhara	SAIL
18:00 – 18:15	Speaker-4	Mitigating the Detrimental Effect of High Alumina in Sinter Making	Debanik Mitra	Tata Steel
18:15 - 18:30	Speaker-5	Optimize the Use of Pyritic Ashes in Sinter Plant	Bhaskar Khatravath	JSW

18:30 – 18:45	Speaker-6	Enhanced Simulation of Sintering Process in an Experimental Pot Sintering Unit through Innovative Measurement, Monitoring and Control System	Archana Sharan	SAIL
18:45 – 19:00	Speaker-7	Need of Pelletization and Mecon's Role	Kunal Singh	MECON
19:00 - 19:15	BREAKOUT ROOM			

Session 3 (Hall 7) <Date: 15.11.2021>

Timing			Name	Organization
	Session Chair		Mr. Biswajit Ghosh	Tata Steel
8:30 - 9:00	Keynote-1	Modern Tools for Steel Research and Process Improvement	Prof. P. Chris Pistorius	Carnegie Mellon University
9:00 - 9:15	Speaker-1	Oxygen Prediction Model in Energy Optimizing Furnace (EOF)	Krishnakumar K	JSW Steel Salem
9:15 - 9:30	Speaker-2	Double Slag Practice in Induction Furnace Steelmaking	Ammasi A	CSIR-NML, Jamshedpur
9:30 – 9:45	Speaker-3	Effect of B2O3 as Fluxing Material on Steel and Slag Properties in Ladle Furnace Refining	Suguna Varanasi	VIZAG Steel
9:45 – 10:00	Speaker-4	Reduction of Aluminium and Lime Consumption by Suitable Selection of Alternate Deoxidizing Compound	Prasenjit Chanda	Tata Steel
10:00 – 10:15	Speaker-5	A Curious Case of Carbon Pick-up in Electrical Steel	Basavarajappa Hitalamani	JSW Steel Bellary
10:15 – 10:30	Speaker-6	Improvement in RH Input Conditions to Enhance the Steel Quality for Automotive Industry	Avnish Kumar	Tata Steel
10:30 - 10:45	BREAKOUT ROOM			

Session 4 (Hall 7) <Date: 15.11.2021>

Timing			Name	Organization
	Session Chair		Dr. Samik Nag	Tata Steel
10:45 - 11:15	Keynote-1	Overview of Mechanisms of Pellet Degradation in DRI Process	Mrigendra Singhai	JSW
11:15 - 11:30	Speaker-1	Operational Experience with Increased Pellet Burden JSW BF2	Aurobinda Dash	JSW
11:30 - 11:45	Speaker-2	BF Stack Shotcrete and Process Improvement at F Blast Furnace TATA STEEL	Ishwari Gupta	Tata Steel
11:45 - 12:00	Speaker-3	Blast Furnace Operation with High LOI (Loss on Ignition) & High SiO2 Ore@ JSW Steel Ltd. Salem Works	Raja Natarajan	JSW

12:00 - 12:15	Speaker-4	Investigation of Gas Dynamics Processes for Improved Aerodynamics of Large Blast Furnace	Rajeev Ranjan Kumar	SAIL
12:15 – 12:30	Speaker-5	Strategies Deployed for High Liquid Production in Blast Furnace Units, JSW Steel Ltd	A.V.R. Dasu	JSW
12:30 - 12:45	BREAKOUT ROOM			

Session 5 (Hall 7) <Date: 15.11.2021>

Timing			Name	Organization
	Session Chair		Mr. R.V. Ramna	Tata Steel
13:15 - 13:45	Keynote-1	Rebuilding the Airplane While in Flight – Decarbonizing Steelmaking in India	Kedar Palekar	MIDREX Technologies India
13:45 - 14:00	Speaker-1	Critical Parameters Affecting Blast Furnace Coke Rate	Pramod Kumar Gupta	JSW
14:00 - 14:15	Speaker-2	Optimisation and Stabilisation of Hot Metal Production during Pandemic Period at Blast Furnaces, Vizag Steel- RINL	Utpal Kumar Parui	Vizag Steel
14:15 - 14:30	Speaker-3	Productivity Enhancement with Existing Facility in E Blast Furnace	Ujjal Dutta	Tata Steel
14:30 – 14:45	Speaker-4	Improvement in Coal Combustibility through Lance Design Modification and Blowing Parameters Adjustments	Boina Sagar	Tata Steel
14:45 – 15:00	Speaker-5	Stabilization of Blast Furnace-1 Operation at Higher Slag Rate	Shashank Pandey	JSW
15:00 – 15:15	Speaker-6	Dual Lance Injection System and Improvement Journey to Sustain as Indian Benchmark	Sumeet Dube	Tata Steel
15:15 - 15:30	BREAKOUT ROOM			

Session 6 (Hall 7) <Date: 15.11.2021>

Timing			Name	Organization
	Session Chair		Dr. K.D. Mehta	CSIR-NML, Jamshedpur
15:30 - 16:00	Keynote-1	Fundamental Understanding on the Use of Different Carbon Sources in the Alternative Ironmaking Hisarna Process	Prof. Zushu Li	University of Warwick

16:00 - 16:15	Speaker-1	Utilization of Lean Grade Iron Ore for Iron Making in Microwave-assisted Carbothermic Reduction	Tapas Ranjan Pati	CSIR IMMT
16:15 - 16:30	Speaker-2	Experience of Using Low Grade Pellets at the Gas based DRI Plant at JSW Steel Limited	Shyam Sundar Yadav	JSW
16:30 - 16:45	Speaker-3	Low Carbon Blast Furnace Ironmaking, JSW Steel Limited, Vijayanagar works	Mohanraj Nagarajan	JSW
16:45 – 17:00	Speaker-4	A Drive Towards the Production of Green Steel By Improvement In Hot Blast Temperature	Sujata Panda	VSSUT, Burla
17:00 – 17:15	Speaker-5	Chromium Partitioning Studies on Production of Low Carbon Ferrochrome Alloy from Sukinda Chromite Ore Fines	Sanjay Agarwal	CSIR-NML, Jamshedpur
17:15 - 17:30	BREAKOUT ROOM			

Session 7 (Hall 3) <Date: 15.11.2021>

Timing			Name	Organization
	Session Chair		Dr. S.K. Ajmani	Ex Tata Steel
13:30 - 14:00	Keynote-1	Performance Improvements and Innovations in Process Metallurgy through Computational Fluid Dynamics	Prof. Vivek Buwa	IIT Delhi
14:00 - 14:15	Speaker-1	Optimization of the Chute Angle for Centre Coke Discharge in Blast Furnace using DEM Simulations	Arijit Chakraborty	Tata Steel
14:15 - 14:30	Speaker-2	Three-Reactor Approach to Basic Oxygen Steel Making Process using FactSage and its Macro Facility	Prasenjit Singha	IIT Madras
14:30 - 14:45	Speaker-3	Numerical Modelling of Thermal Behaviour in a Step Mould Ingot Casting Process	Aditya Swain	Tata Steel
14:45 – 15:00	Speaker-4	Development of a Thermal Model for Continuous Casting Process Using OpenFOAM	Tejaswi K.S.	IIT Madras
15:00 - 15:15	BREAKOUT ROOM			

Session 8 (Hall 1) <Date: 15.11.2021>

Timing			Name	Organization
	Session Chair		Kedar Palekar	MIDREX technologies India
10:45 - 11:15	Keynote-1	Industry Must Begin using Coal through Gasification Technology	V.R. Sharma	JSPL
11:15 - 11:30	Speaker-1	A Study on Critical Parameters of CDCP	Praveen Jha	SAIL
11:30 - 11:45	Speaker-2	Effect of Volatile Content of Coal on Final Burnout in Raceway	Saurabh Kawale	JSW
11:45 - 12:00	Speaker-3	Effect of heating rate on rheological properties of coal and on coke quality	Anup Kumar	SAIL
12:00 – 12:15	Speaker-4	Advance Technological/Process Modifications for Productivity Improvement and Effective Waste Utilization	Srisuman Kanamarlapudi	JSW
12:15 – 12:30	Speaker-5	Improving Coal Combustibility through Injection of Calcium Oxide Along with Pulverized Coal Injection at I Blast Furnace, TATA Steel	Dhiren Patnaik	Tata Steel
12:30 – 12:45	Speaker-6	PCI at RINL - Challenging Start to a Promising Journey	Bhaktavatsalarao Rajana	Vizag Steel
12:45 - 13:00	BREAKOUT ROOM			

Session 9 (Hall 1) <Date: 15.11.2021>

Timing			Name	Organization
	Session Chair		Prof. Zushu Li	Warwick Manufacturing Group
13:15 - 13:45	Keynote-1	Influence of Physicochemical Properties of CaO-Al ₂ O ₃ -MgO Based Slags on Cleanliness of Al-Killed Steels in Secondary Refining and Continuous Casting Processes	Prof. Joo Hyun Park	Hanyang University, Seol
13:45 - 14:00	Speaker-1	Study of Effect of Calcium Treatment on Non-Metallic Inclusions in Si-Mn Killed Steel Grade	Sk Wasim Haidar	JSW
14:00 - 14:15	Speaker-2	Experiences with Pure Calcium Treatment of Steel at IISCO Steel Plant	Rishu Kumar	SAIL
14:15 - 14:30	Speaker-3	Effect of Shroud Geometry on Melt Residence in Steelmaking Tundish System	Prince Singh	IIT Ropar
14:30 – 14:45	Speaker-4	Reduction in SEN change Failure at the Thick Slab Caster	Aditi Raj	Tata Steel

14:45 – 15:00	Speaker-5	Understanding SEN Clogging during Casting of Stainless Steel	Arnab Kundu	Jindal Stainless
15:00 – 15:15	Speaker-6	Mold Flux Design Criteria for Continuous Casting of High Aluminium Steels	Bhupendra Kumhare	CSIR-NML, Jamshedpur
15:15 - 15:30	BREAKOUT ROOM			

Session 10 (Hall 1) <Date: 15.11.2021>

Timing			Name	Organization
	Session Chair		Dr. A.K. Ray	IIM Kolkata Chapter
15:30 - 16:00	Keynote-1	Approaches for Differentiation and Value Creation in Steelmaking	P.K. Tripathy	Tata Steel
16:00 - 16:15	Speaker-1	Elimination of Ovality Defect in 200 Round Section by Optimizing the Casting Parameters	Duraisamy Karrupanna	JSW
16:15 - 16:30	Speaker-2	Failure Analysis of Continuous Cast Slab through Internal Quality Assessments and Measures for Quality Improvement	Snehangshu Roy	SAIL
16:30 - 16:45	Speaker-3	Controlling of Hydrogen Crack in Rolled Product of Cr-Mo-Ni Steels	Soorya Jayaraj	JSW
16:45 – 17:00	Speaker-4	Reduction of Longitudinal Cracks at Thin Slab Caster	Nagarjuna V.L.	JSW
17:00 – 17:15	Speaker-5	Investigations on Intercolumnar Cracking in High Carbon Steel Slab During Continuous Casting	Milind Thoke	Tata Steel
17:15 – 17:30	Speaker-6	Inclusion Characterization of Free Cutting Steel with Different Heavy Elements	Sethu Shanmugam	JSW
17:30 - 17:45	BREAKOUT ROOM			

Theme: Safety

Session 1 (Hall 8) <Date: 14.11.2021>

Timing			Name	Organization
	Session Chair		Prof. Valerio Cozzani	University of Bologna, Italy
14:30 – 15:00	Keynote-1	Key Performance Indicators for the assessment of inherent safety and escalation hazard in the early process design	Prof. Valerio Cozzani	University of Bologna, Italy
15:00 – 15:30	Keynote-2	Safety Competency Development of Workforce to achieve Zero Harm	Neeraj Sinha	Tata Steel
15:30 – 15:45	Spekaer-1	Deployment of Past Incidents learnings to avoid recurrence	Amit Singh	Tata Steel
15:45 – 16:00	Speaker-2	Hardware intervention projects	Amol Mahajan	TSBSL
16:00 – 16:15	Speaker-3	'Leveraging digital technologies to build safety competency of workforce to achieve zero harm'	Dip Koner	Tata Steel
16:15 – 16:30	Speaker-4	Digital and Technology driven Safety Excellence at Tata Steel'	Shikhar Kaushik & Udit Verma	Tata Steel
16:30 – 16:45	BREAKOUT ROOM			

Session 2 (Hall 8) <Date: 14.11.2021>

Timing			Name	Organization
	Session Chair		Prof. Uday Kumar	Lulea University, Sweden
16:45 – 17:15	Keynote-1	Transformative Technologies and Business Solutions for Safety Management Issues and Challenges	Prof. Uday Kumar	Lulea University, Sweden
17:15 – 17:30	Spekaer-1	Driving road safety though technology and artificial intelligence'	Amitabh Singh	Tata Pigments
17:30 – 17:45	Speaker-2	Road Safety through DFMS	Arijit Kundu	Tata Steel

17:45 – 18:00	Speaker-3	A safe practice of covering tarpaulin using safe platform and personal fall protection	Rakesh Behera	TSBSL
18:00 – 18:15	Speaker-4	Implementing mechanism to minimize risk of falling from top of bulker	Rashid Hussain	Jamipol
18:15 – 18:30	Speaker-5	Self guided movable safety guard at induction furnace crucible'	Srikanta Bera	Tata Metaliks Ltd.
18:30 – 18:45	Speaker-6	Usage of robotics and digitalization to improve safety in rolling mills'	Ved Prakash	Tata Steel
18:45 – 19:00	BREAKOUT ROOM			

Session 3 (Hall 8) <Date: 15.11.2021>

Timing		Name	Organization
	Session Chair	Prabir Ghosh	DSS
8:30 - 9:00	Keynote-1	Digitalization of Process Safety Performance Indicators (PSPI) for better business results	Amit Kumar Singh Tata Steel
9:00 - 9:30	Keynote-2	Risk Based Process Safety Management	Prabir Ghosh DSS
9:30 - 9:45	Speaker-1	Risk based inspection	Ajay Pratap Tata Steel
9:45 - 10:00	Speaker-2	Hook Vision-a new way of handling liquid steel'	Sourav Palit Tata Steel
10:00 - 10:15	Speaker-3	Process Safety Improvement in ladle teeming operation at Caster – through inherently safer design	Vinay Kumar Tata Steel
10:15 - 10:30	Speaker-4	SAP based Interlock Bypass Management System	Vikash Kumar Tata Steel
10:30 - 10:45	BREAKOUT ROOM		

Session 4 (Hall 8) <Date: 15.11.2021>

Timing		Name	Organization
	Session Chair	Prof. Jhareswar Maiti	IIT Kharagpur

10:45 - 11:15	Keynote-1	Science of Fit	Vinay Pathak	3M
11:15 - 11:45	Keynote-2	Breakthrough Innovation in Safety	Prof. Jhareswar Maiti	IIT Kharagpur
11:45 - 12:00	Speaker-1	Auto tracking and control of human intrusion at bundling stations	Ankit Agrawal	Tata Steel
12:00 - 12:15	Speaker-2	Automation of Raw material handling system in Mini blast furnace'	Anupam Nayek	Tata Metaliks Limited
12:15 - 12:30	Speaker-3	Safety Initiatives for injury free major shut down in sinter making plant	Mom Mitra	Tata Steel
12:30 - 12:45	Speaker-4	Learnings from failures of safety'	Kaushal Kishore	Tata Steel
12:45 - 13:00	BREAKOUT ROOM			

Session 5 (Hall 8) <Date: 15.11.2021>

Timing			Name	Organization
	Session Chair		Rajiv Desai	Tata Communications
13:30 – 14:00	Keynote-1	Developments in Occupational Health and Safety Management Systems & Practical ways for Accident Prevention in Metallurgical Industry Sector	Arun Chaturvedi	EQMS INGENUITY P LTD
14:00 – 14:30	Keynote-2	Connected Worker	Rajiv Desai	Tata Communications
14:30 – 14:45	Speaker-1	Human Reliability Assessment of critical manual task using Human Error Assessment & Reduction Technique (HEART)	Deepanwita Tripathy	Tata Steel
14:45 – 15:00	Speaker-2	A systematic approach of improving contractor safety performance through Business partners safety ABP'	Poonam Shukla	Tata Steel
15:00 – 15:15	Speaker-3	Excellence in Construction Safety'	Sukesh Jha	Tata Steel
15:15 – 15:30	Speaker-4	'Contractor safety performance: ensuring sustenance of performance'	Sunil Kumar	Tata Steel
15:30 – 15:45	BREAKOUT ROOM			