

# TECHNICAL PROGRAM OF EMSI-2023

**8<sup>th</sup> February, 2023**

<b>8:00 AM Onwards</b>	<b>Registration</b>
<b>10 AM -11:10 AM</b>	<b>Inaugural Function</b>
<b>11:10 AM- 11:40 AM</b>	<b>HIGH TEA <i>Sponsored by LAB LINE</i></b>
	Session Chair: Prof. Kamanio Chhattopadhyay
<b>11:40 AM -12:30 PM</b>	<b>Prof. N.N. Das Memorial Lecture    Dr. G.K. Dey</b>
<b>12:30-AM-1:10 PM</b>	<b>Keynote Speaker: Prof. B. S. Murty</b>

**1:10PM - 2:00 PM: Lunch *Sponsored by ZEISS***

**2:00 PM-3:30 PM (4 PARALLEL SESSIONS)**

Time	Hall A Electron diffraction and crystallography/ Physical Metallurgy and Metals/Alloys		Hall B Micro/nano-Fabrication, Nanoelectronics, and Nanotechnology		Hall C Biomedical and Healthcare Applications		Hall D Functional Nanomaterials	
2:00 PM- 2:20 PM	IL	René de Kloe (EDAX)	IL 2:00 PM- 2:20 PM	EMSI2023-514 Vlamidir Pavelyev	IL 2:00 PM- 2:20 PM	Tan Bee Yi (Zeiss)	IL 2:00 PM- 2:20 PM	EMSI2023-0313 Sanjeev Aggarwal
2:20 PM- 2:40 PM	IL	Karthick Balasubramaniam (Thermofisher)	IL 2:20 PM- 2:40 PM	EMSI2023-0334 Davinder Kaur	IL 2:20 PM- 2:40 PM	Tetsuo Oikawa (Jeol)	IL 2:20 PM- 2:40 PM	EMSI2023-0017 Sangam Chatterjee
2:40 PM- 2:55 PM	OL	EMSI2023-0065 Venkat Appala Narasayya ch	IL 2:40 PM- 3:00 PM	EMSI2023-0335 Khurshed Ahmad Shah	IL 2:40 PM- 3:00 PM	EMSI2023-0346 Subhash C Yadav	IL 2:40 PM- 3:00 PM	EMSI2023-0403 Chandana Rath
2:55 PM- 3:10 PM	OL	EMSI2023-0090 Atasi Ghosh	OL 3:00 PM- 3:15 PM	Pratyank Rastogi Induston	IL 3:00 PM- 3:15 PM	EMSI2023-0341 Tinku Basu	OL 3:00 PM- 3:15 PM	EMSI2023-0206 Ankit Kadian
3:10 PM- 3:25 PM	OL	EMSI2023-0085 Harish Donthula	OL 3:15 PM- 3:30 PM	EMSI2023-0046 Mandeep Kaur	OL 3:15 PM- 3:30 PM	EMSI2023-0226 Arpana Parihar	OL 3:15 PM- 3:30 PM	EMSI2023-0109 Keval Jayantilal Gadani

**3:30PM - 3:45PM: TEA**

**3:45 PM-5:20 PM (4 PARALLEL SESSIONS)**

Time	Hall A Physical Metallurgy and/Metals and Alloys		Hall B Micro/nano-Fabrication, Nanoelectronics, and Nanotechnology		Hall C Ultrastructure, Immuno Electron Microscopy and Microanalysis, Macromolecules and General Life Sciences		Hall D Functional Nanomaterials, Semiconductor device and applications	
	3:45 PM-4:05 PM	IL	EMSI2023-0244 Satyam Suwas	IL 3:45 PM-4:05 PM	EMSI2023-0458 Shankar Dutta	IL 3:45 PM-4:05 PM	EMSI2023-0479 Baig Mirza Saleem	IL 3:45 PM-4:05 PM
4:05 PM-4:25 PM	IL	EMSI2023-0387 Krishanu Biswas	IL 4:05 PM-4:25 PM	EMSI2023-0449 Surender Kumar	IL 4:05 PM-4:25 PM	EMSI2023-0414 Kalyan Mitra	IL 4:05 PM-4:25 PM	EMSI2023-0169 Satanand Mishra
4:25 PM-4:45 PM	IL	Chandan Srivastava	IL 4:25 PM-4:45 PM	EMSI2023-0480 Govind Gupta	IL 4:25 PM-4:45 PM	EMSI2023-0553 Manidipa Banerjee	OL 4:25 PM-4:40 PM	EMSI2023-0531 Supriya Saha
4:45 PM-5:00 PM	OL	EMSI2023-0083 Rajakishore Sahoo	IL 4:45 PM-5:05 PM	EMSI2023-0142 Sudhir Husale	IL 4:45 PM-5:05 PM	EMSI2023-0429 Vengadesan Krishnan	OL 4:40 PM-4:55 PM	EMSI2023-0416 Aditya Prakash
5:00 PM-5:15 PM	OL	EMSI2023-0406 Pradyumna Kumar Parida			OL 5:05 PM-5:20 PM	Ranjita Ghosh Moulick	OL 4:55 PM-5:10 PM	EMSI2023-0581 Poulab Chakrabarti

**5:20 PM - 6:00 PM: Poster Session-I and Micrograph Contest**

**6:10 PM: Departure for cultural program and banquet dinner**

**7:10 PM: Cultural Program at Hotel Le-Meridian**

**8:10 PM Onwards: Banquet Dinner at Le-Meridian *Sponsored by Thermo Fisher SCIENTIFIC***

## 9<sup>th</sup> February, 2023

<b>Time</b>	<b>Plenary Session: Hall A</b>	
	<b>Session Chair: Prof. P. V. Satyam</b>	
9:00 AM-9:40 AM	PL-1	EMSI2023-0411 Nigel D. Browning
9:40 AM-10:20 AM	PL-2	EMSI2023-0574 Subhasis Ghosh
10:20 AM-11:00 AM	PL-3	EMSI2023-0229 Tapas Chandra Nag

**11:00 AM-11:30 AM: TEA**

11:00 AM-11:30 AM	TEA
	<b>Company Presentations Session Chair: Prof. A.K. Srivastava</b>
11:30 AM - 12:05PM	CP-1 Thermo Fisher, Alex Bright Advanced applications and current trends in materials research with transmission electron microscopy
12:05 AM - 12:25PM	CP-2 Oxford Instruments, Patrick Trimby Effective characterisation of highly deformed materials using EBSD pattern matching techniques
12:25 PM – 1:00PM	CP-3 ZEISS, Shaun Graham Sample-in-Volume Analysis workflow: A new multi-scale materials characterization technique

**1:00PM-2:00PM: Lunch Sponsored by insmart Systems & FOREVISION Instruments**

**2 PM-3:55 PM: (4 PARALLEL SESSIONS)**

Time	Hall A HREM and Novel Techniques, Sample preparation techniques in electron microscopy, Electron diffraction and crystallography		Hall B Advanced, Smart and Semiconducting Materials, Physical Metallurgy and/Metals and Alloys		Hall C Electron microscopy of eradiated materials, In situ electron microscopy, Advances in SEM and FIB, Advances in Spectroscopy in SEM, TEM &STEM, Cryo EM, SEM in Life Sciences		Hall D Energy and Environment, Materials for energy applications	
	2:00 PM- 2:20 PM	IL	Marton Peter Iritz Technoorg Linda Co. Ltd.	IL 2:00 PM- 2:20 PM	P. V. Satyam	IL 2:00 PM- 2:20 PM	Partha Ghosal	IL 2:00 PM- 2:20 PM
2:20 PM- 2:40 PM	IL	EMSI2023-0080 A K Pramanick	IL 2:20 PM- 2:40 PM	EMSI2023-0111 Jiunn-Yuan Lin	IL 2:20 PM- 2:40 PM	EMSI2023-0183 Balaji Birajdar	IL 2:20 PM- 2:40 PM	EMSI2023-0467 Monika Tomar Chowdhuri
2:40 PM- 3:00 PM	IL	EMSI2023-0315 Arup Dasgupta	IL 2:40 PM- 3:00 PM	EMSI2023-0344 N.K. Mukhopadhyay	IL 2:40 PM- 3:00 PM	EMSI2023-0388 Saikat Chowdhury	IL 2:40 PM- 3:00 PM	EMSI2023-0560 S. A. Hashmi
3:00 PM- 3:20 PM	IL	EMSI2023-0404 Kerstin Volz	IL 3:00 PM- 3:20 PM	EMSI2023-0365 Anchal Srivastava	OL 3:00 PM- 3:15 PM	EMSI2023-0322 Sarmistha Dhan	IL 3:00 PM- 3:20 PM	EMSI2023-0466 Sasanka Deka
3:20 PM- 3:40 PM	IL	EMSI2023-0411 Nigel D. Browning	IL 3:20 PM- 3:40 PM	EMSI2023-0486 Sushil Kumar Singh	OL 3:15 PM- 3:30 PM	EMSI2023-0104 P. Madhusudhana Chary	OL 3:20 PM- 3:35 PM	EMSI2023-0237 Manish Mudgal
3:40 PM- 4:00 PM	IL	K.G. Pradeep	IL 3:40 PM- 4:00 PM	EMSI2023-0608 Vandna Luthra	OL 3:30 PM- 3:45 PM	EMSI2023-0201 Chanchal Ghosh	OL 3:35 PM- 3:50 PM	EMSI2023-0565 Sheetal Issar
4:00 PM- 4:15 PM	OL	EMSI2023-0204 Jai Tawale	OL 4:00 PM- 4:15 PM	EMSI2023-0395 Kishorchandra Rewatkar				

**4:15 PM- 4:30 PM: TEA**

**4:30 - 5:30 PM Poster Session-II (Poster Dimension- A0 size)**

**5:30 - 6:00 PM: EMSI Award Function**

**6:00 - 7:00 PM: XLI-AGBM of EMSI**

**7:00 - 8:00 PM: Cultural program at Conference Center at University of Delhi**

**8:00 PM Onwards: Banquet Dinner at Conference Center at University of Delhi, *Sponsored by JEOL INDIA (P) LTD.***

## 10<sup>th</sup> February, 2023

### 9:00 AM- 10:55AM (4 PARALLEL SESSIONS)

Time	Hall A Advances in Spectroscopy in SEM, TEM & STEM, Electron diffraction and crystallography, Scanning probe microscopy, Electron Microscopy of irradiated materials		Hall B Materials for Energy Applications, Energy and Environment, Advances in Spectroscopy in SEM, TEM & STEM, Biomedical and healthcare applications		Hall C Electronic and Magnetic Nanomaterials, Physical Metallurgy and/Metals and Alloys		Hall D Piezoelectric, Pyroelectric and Ferroelectric Materials, Micro/nano-Fabrication, Nanoelectronics, and Nanotechnology	
	9:00 AM-9:20 AM	IL	EMSI2023-0209 R. Mythili	IL 9:00 PM-9:20 PM	Jitendra Kumar (Anton Paar)	IL 9:00 PM-9:20 PM	EMSI2023-0305 Sachin Tyagi	IL 9:00 PM-9:20 PM
9:20 AM-9:40 AM	IL	Alex Bright	IL 9:20 PM-9:40 PM	Tetsuo Oikawa (Jeol)	IL 9:20 PM-9:40 PM	EMSI2023-0325 Basharat	IL 9:20 PM-9:40 PM	EMSI2023-0505 Binay Kumar
9:40 AM-10:00 AM	IL	EMSI2023-0337 Ora Bitton (online)	IL 9:40 AM-10:00 AM	EMSI2023-0509 Rupesh Devan	IL 9:40 AM-10:00 AM	EMSI2023-0377 Ajeet Kumar	IL 9:40 AM-10:00 AM	EMSI2023-0524 Ashok Kumar
10:00 AM-10:20AM	IL	Carlo S. Casari (online)	IL 10:00 AM-10:20 AM	EMSI2023-0446 Bikash Kumar Jena	IL 10:00 AM-10:20 AM	EMSI2023-0540 S. Annapoorni	OL 10:00 AM-10:15 AM	EMSI2023-0127 Charu Sharma
10:20 AM-10:40 AM	IL	Andreas E. Vladar (online)	IL 10:20 AM-10:40 AM	Pranesh Sengupta	OL 10:20 AM-10:35 AM	EMSI2023-0375 Prem Kumar Murugaiyan	OL 10:15 AM-10:30 AM	EMSI2023-0216 Amit Tomar
10:40 AM-10:50 AM	OL	EMSI2023-0281 Govind Sahu (online)	IL 10:40 AM-11:00 AM	EMSI2023-0606 Tulika Prasad	OL 10:35 AM-10:50 AM	EMSI2023-0059 Rajesh Kumar Rai	OL 10:30 AM-10:45 AM	EMSI2023-0448 Minu Sathiadasan
10:50 AM-11:00 AM	OL	Poonam Pahuja (online)	OL 11:00 AM-11:15 AM	EMSI2023-0441 Sandeep Arya	OL 10:50 AM-11:05 AM	EMSI2023-0314 Divya Gupta	OL 10:45 AM-11:00 AM	EMSI2023-0145 Dhiraj
11:00 AM-11:15 AM	OL	EMSI2023-0309 Raman Saini						

11:15 AM - 11:30 AM: Tea

**11:30 AM- 1:00 PM (4 PARALLEL SESSIONS)**

Time	Hall A Semiconducting materials and device applications, Physical Metallurgy, and/Metals and Alloys		Hall B Advances in atom probe tomography, Electron microscopy of irradiated materials		Hall C Polymers, glasses and composites		Hall D Thin films and coatings, Micro/nano-Fabrication, Nanoelectronics, and Nanotechnology	
	11:30 AM-11:50 AM	IL	EMSI2023-0328 Om Prakash Thakur	IL 11:30 AM-11:50 AM	EMSI2023-0218 Deodatta Shinde	IL 11:30 AM-11:50 AM	EMSI2023-0567 Sevi Murugavel	IL 11:30 AM-11:50 AM
11:50 AM-12:10 PM	IL	EMSI2023-0348 Puspashree Mishra	IL 11:50 AM-12:10 PM	EMSI2023-0525 Somnath C Roy	IL 11:50 AM-12:10 PM	EMSI2023-0427 Rahul Mitra	IL 11:50 AM-12:10 PM	EMSI2023-0335 Sumalay Roy
12:10 PM-12:30 PM	IL	EMSI2023-0542 Shyama Rath	IL 12:10 PM-12:25 PM	EMSI2023-0220 Surendra Kumar Makineni	IL 12:10 PM-12:30 PM	EMSI2023-0554 Ranu Nayak	IL 12:10 PM-12:30 PM	EMSI2023-0478 Pratap Kumar Sahoo
12:30 PM-12:50 PM	IL	EMSI2023-0338 D. S. Rawal	OL 12:25 PM-12:45 PM	EMSI2023-0035 Siddhartha Shankar Pany	OL 12:30 PM-12:45 PM	Jaydeep Bhattacharya	IL 12:30 PM-12:50 PM	EMSI2023-0270 Akhilesh Pandey
12:50 PM-1:05 PM	OL	EMSI2023-0372 Purvesh Soni	OL 12:45 PM-1:00 PM	EMSI2023-0445 Mahander Pratap	OL 12:45 PM-1:00 PM	EMSI2023-0490 Mohammad Ashiq	OL 12:50 PM- 1.05 PM	EMSI2023-0196 Avritti Srivastava

**1:05 PM-2:00 PM: Lunch**

**2:00 PM-3:55 PM (4 Parallel Sessions)**

Time	Hall A Physical Metallurgy and/Metals and Alloys		Hall B Atom probe microscopy, scanning probe microscopy		Hall C Polymers, Glasses & Composites, Functional Nanomaterials		Hall D Biomedical and healthcare applications, bio- technology, cytotoxic studies, Chemical/bio- sensors, Biotechnology	
	2:00 PM- 2:20 PM	IL	EMSI2023-0537 N Sathish	IL 2:00 PM- 2:20 PM	R. Gopalan	IL 2:00 PM- 2:20 PM	EMSI2023-0571 Rajendra Singh Dhayal	IL 2:00 PM- 2:20 PM
2:20 PM- 2:40 PM	IL	EMSI2023-0021 Debasis Chaira	IL 2:20 PM- 2:40 PM	Joysurya Basu	IL 2:20 PM- 2:40 PM	EMSI2023-0552 M. A. Shah	IL 2:20 PM- 2:40 PM	EMSI2023-0494 Debabrata Mishra
2:40 PM- 2:55 PM	OL	EMSI2023-0062 P.S. Manoranjan Jena	IL 2:40 PM- 3:00 PM	EMSI2023-0227 Sunil Singh Kushvaha	IL 2:40 PM- 3:00 PM	EMSI2023-0149 Jitendra Sharma	IL 2:40 PM- 3:00 PM	EMSI2023-0255 Chandan Goswami
2:55 PM- 3:10 PM	OL	EMSI2023-0184 Rohit Ranjan Shahi	IL 3:00 PM- 3:20 PM	EMSI2023-0398 Seungbum Hong	OL 3:00 PM- 3:15 PM	EMSI2023-0150 Rubby Mahajan	IL 3:00 PM- 3:20 PM	EMSI2023-0407 Ambesh Dixit
3:10 PM- 3:25 PM	OL	EMSI2023-0019 Akhil G. Nair	IL 3:20 PM- 3:40 PM	EMSI2023-0534 Amarjeet Kaur	OL 3:15 PM- 3:30 PM	EMSI2023-0550 Ram Kumar	IL 3:20 PM- 3:40 PM	EMSI2023-0469 Arijit Chowdhuri
3:25 PM- 3:40 PM	OL	EMSI2023-0118 Biraj Kumar Sahoo	OL 3:40 PM- 3:55 PM	EMSI2023-0605 Sadhasivam M	OL 3:30 PM- 3:45 PM	EMSI2023-0 Sabyasachi Ghosh	OL 3:40 PM- 3:55 PM	EMSI2023-0452 Raju Khan

**4:00 PM to 4:45 PM: Valedictory Function & Prize Distribution**

**4:45 PM: HIGH TEA**