

12th Asia-Pacific Microscopy Conference (APMC 2020)
Hyderabad International Convention Centre, 3-7 February 2020, Hyderabad, India

Conference Programme

Day 1 (3rd February 2020/Monday)

Time (hrs)		
0800-0900	Registration	
0900-1030	Inaugural Session	
1030-1100	High Tea <i>Sponsored by BRUKER Nano GmbH</i>	
Day 1 (3 rd February 2020) Monday	Conference Plenary MS (Hall 4)	
	<i>Session Chair: Kamanio Chattopadhyay</i>	
	<i>Session Co-Chair: PV Satyam</i>	
1100-1145	Frances Ross (CP)	Opportunities for Understanding Crystal Growth Through In-Situ Electron Microscopy
1145-1230	Grant Jensen (CP)	Electron Cryotomography: Present Capabilities and Future Potential
1230-1315	Dipankar Banerjee (CP)	Some Applications of Electron Microscopy in Materials Engineering
1315-1400	Lunch	
Day 1 (3 rd February 2020) Monday	Plenary MS (Hall 1)	
	<i>Session Chair: S Lele</i>	
	<i>Session Co-Chair: Raghvendra Tewari</i>	
1400-1430	Barry Carter (P)	Lithiation and Sodiation as Solid-State Reactions: Combining TEM and Computer Modelling
1430-1500	Ravishankar Narayanan (P)	Nanostructure Investigations Using Electron Microscopy
1500-1530	Ajay K Sood (P)	Deconstructing Materials Through Confocal Microscopy of Colloidal Crystals and Glasses
Day 1 (3 rd February 2020) Monday	Plenary LS (Hall 2)	
	<i>Session Chair: Grant Jensen</i>	
	<i>Session Co-Chair: K Vinothkumar</i>	
1400-1430	Rajendra Agarwal (P)	Structure of The Human Mitochondrial Ribosome In Complex with EF-G1 Reveals Unique Features of tRNA Translocation
1430-1500	Rao V L Papineni (P)	Advances in Visualization Bridging Radiobiology and Radiation Cancer Therapy
1500-1530	Eric Hanssen (P)	The Tribulation of a Core Facility Director from Electron Microscopy Technician to Wannabe Architect. Pitfalls and Successes on Building a Dedicated Electron Microscopy Facility from Scratch
1530-1630	TEA+ Poster session + Exhibition (Hall 3)	
Day 1 (3 rd February 2020) Monday	Plenary MS (Hall 1)	
	<i>Session Chair: SV Kamat</i>	
	<i>Session Co-Chair: K Gopinath</i>	
1630-1700	Syo Matsumura (P)	STEM-XEDS Study of Atom Locations of Dopant Elements in Cu₆Sn₅ Intermetallic Compounds

1700-1730	Rajarshi Banerjee (P)	Coupled TEM and Atom Probe Investigation of Phase Inversion in a High Entropy Alloy
Day 1 (3 rd February 2020) Monday	Plenary LS (Hall 2)	
	<i>Session Chair: Keichi Namba</i>	
	<i>Session Co-Chair: Somnath Dutta</i>	
1630-1700	Satyajit Mayor (P)	Imaging the Membrane of a Living Cell at The Nanoscale Reveals a Mechano-responsive Actin-membrane Composite
1700-1730	Saikat Chowdhury (P)	Cryo-Electron Microscopy Reveals How Activated Actin-Nucleator Facilitates Actin Filament Formation
Technical Sessions (MS)		
Day 1 (3 rd February 2020) Monday	MS-1 Electron Microscopy: In-situ Techniques- I (MR-G.01)	
	<i>Session Chair: M Vijayalakshmi</i>	
1730-1750	Kenta Yoshida (CI)	In-Situ Weak-Beam STEM for Quantitative Dislocation Analysis in Nuclear Materials During Post-Irradiation Annealing
1750-1810	Partha Ghosal (CI)	In-Situ Microstructural Characterization Using Hot & Cold Stage In SEM for Advanced Materials
1810-1830	Yukio Sato (CI)	Structural Investigation of Dielectrics and Ferroelectrics Using Atomic-Scale In-Situ Electron Microscopy under External Electric Fields
Day 1 (3 rd February 2020) Monday	MS-2 Electron Microscopy of Electronic and Photonic Materials-I (MR-G.02)	
	<i>Session Chair: Rafal Duninborkowski</i>	
1730-1750	Koji Tanaka (CI)	Characterization of β -Ga ₂ O ₃ and Mosaic Diamond Wafers by Using EBSD and FIB/STEM Techniques
1750-1810	Avanish Srivastava (CI)	Oxide Nanostructures: Synthesis, Characterization and Properties Evaluation
1810-1830	D V Sridhara Rao (CI)	Single Crystal Silicon Carbide: Microstructural Defects
Day 1 (3 rd February 2020) Monday	MS-3 Electron Microscopy of Materials-I (MR-G.03)	
	<i>Session Chair: NK Mukhopadhyay</i>	
1730-1750	B S Murty (CI)	Understanding High Entropy Alloys Through Microscopy
1750-1810	K Muraleedharan (CI)	Materials Technologies From CGCRI on The Threshold of Commercial Exploitation
1810-1830	Ian Jones (CI)	Some Aberration Uncorrected Electron Microscopy
Day 1 (3 rd February 2020) Monday	MS-4 Chemistry and Spectroscopic Techniques in Electron Microscopy-I (MR-G.04)	
	<i>Session Chair: T Raghu</i>	
1730-1750	Yuri Rikers (CI)	Next-Generation EDS Detectors Pave the Way Toward More Advanced Nano particle Research
1750-1810	Mitsutaka Haruta (CI)	Extraction of Local Coordination Structure and Crystal Field Splitting Using Crystal Field Multiplet Calculation
1810-1830	Dong-Ik Kim (CI)	Phase Identification of Complex Oxide Phases by Energy Dispersive Spectroscopy Combined with Electron Back Scattered Diffraction and Transmission Kikuchi Diffraction Technique
Day 1 (3 rd February 2020) Monday	MS-5 Electron Microscopy of Low - Dimensional Materials-I (MR-G.05)	
	<i>Session Chair: S Vadera</i>	
1730-1750	Zonghoon Lee (CI)	Recent Advances in Atomic Resolution TEM Study on

		Defects and Growth of Two-Dimensional Materials
1750-1810	Yu Rong (CI)	Atomic Structure and Properties of SnO ₂ Surfaces
1810-1830	Ashutosh Rath (CI)	Study of Various 2D Materials for Energy and Device Applications Using Electron Microscopy
Day 1 (3 rd February 2020) Monday	MS-6 Nano Structured and Nano Materials-I (MR-G.06)	
	<i>Session Chair: VV Satya Prasad</i>	
1730-1750	V Satyam Parlapalli (CI)	Interface Manipulation for The Growth of Oxide and Metal Nanostructures
1750-1810	Ch Subrahmanyam	Effect of Surface Chemistry of the Nano Reinforcement Matrix on the Mechanical Properties of FRPs-A Spectroscopic Study
1810-1830	D Wu (CI)	Next-Generation EDS Detectors Pave the Way Toward More Advanced Nano particle Research
Technical Sessions (LS)		
Day 1 (3 rd February 2020) Monday	LS-1 Virus Structures (MR-1.01)	
	<i>Session Chair: Tanweer Hussain</i>	
1730-1750	Mihnea Bostina (CI)	TBD
1750-1810	Tirumala Kumar Chowdhry (CI)	Conformation Dynamics of Chikungunya Virus Cell-Entry Proteins: Structural Characterisation of Membrane Fusion Protein, E1, Intermediates
1810-1830	Nadishka Jayawardena	Oncolytic Seneca Valley Virus Structure and Structural Insights into Receptor Specificity
Day 1 (3 rd February 2020) Monday	LS-2 Microscopic Approaches for Biological Structures and Functions (MR-1.02)	
	<i>Session Chair: AK Jain</i>	
1730-1750	S Motoki (CI)	Development of CRYO ARM - Cryo High-Resolution Transmission Electron Microscope Equipped with Cold Field Emission Gun - for Structural Biology
1750-1810	Archana Singh (CI)	Autocrine Signalling Protects Mitochondrial Health in Skin Cells Exposed to Ultraviolet Radiation-Induced DNA Damage
1810-1830	Walter Kaufmann	Electron Tomography and Freeze-Fracture Replica Analysis of Voltage-Gated Calcium Channels In Relation to Vesicle Fusion Sites at Neuron Synapses
Day 1 (3 rd February 2020) Monday	LS-3 Electron Microscope for Life Sciences-I (MR-1.03)	
	<i>Session Chair: Rajendra Agrawal</i>	
1730-1750	Anita Jaogota (CI)	Pineal Circadian Rhythms in Synaptic Ribbons are Synchronized to Light–Dark Cycles :Ultra-structural Studies in Anophthalmic Mutant Rats
1750-1810	Shaon Ray Chaudhuri (CI)	Microscopy for Unveiling the Mechanism of Microbial Finishing of Ramie Fiber
1810-1830	Debasish Das	Ultrastructure of Adhesive Devices In a Torrential Sisorid Catfish, Glyptothorax Sinense Sikkimensis
1900-2000	Cultural Programme: Sarod by Amaan Ali & Team (Hall-4)	
2000-2200	Banquet Dinner: Sponsored by THERMO FISHER SCIENTIFIC (HICC Novotel Lawn)	
Day 2 (4 th February 2020/Tuesday)		

Day 2 (4 th February 2020) Tuesday	Conference Plenary (Hall 1 & 2)	
	<i>Session Chair: D Banerjee</i>	
	<i>Session Co-Chair: Amit Bhattacharjee</i>	
0900-0930	Ichiro Ohnishi (CP)	Latest Technologies for Aberration Corrected Microscopes in JEOL
0930-1000	Fabian Perez-Willard (CP)	Expanding the Application Space of Ion Microscopy
1000-1030	D Wu (CP)	Utilizing an Ultra-High Brightness Cold Field Emission Electron Source on Thermo Fisher Scientific's Latest S/TEM Platform: Spectra
1030-1100	Tea	
1100-1200	Poster Session + Exhibition (Hall 3)	
1100-1130	EMSI Award ceremony (Hall 1 & 2)	
1130-1200	<i>Prof. NN Dasgupta Memorial Lecture by Holland Cheng (Hall 1 & 2)</i>	
Technical Sessions (MS)		
Day 2 (4 th February 2020) Tuesday	MS-8 Electron Microscopy: Energy Materials-I (MR-G.01)	
	<i>Session Chair: AK Gogia</i>	
	1200-1220	Suddhasatwa Basu (CI)
1220-1240	Paulo Ferreira (CI)	Understanding The Structure of LiMn ₂ O ₄ by Aberration-Corrected HAADF STEM and Differential Phase Contrast
1240-1300	R Gopalan (CI)	Microstructure and Microchemistry Control for Energy Storage / Conversion Materials
1300-1320	Bikash Kumar Jena (CI)	Graphene-Transition Metal Oxide/Chalcogenide Hybrids for Electrochemical Energy Storage Application
Day 2 (4 th February 2020) Tuesday	MS-9 Novel, Magnetic, Functional and Smart Emerging Materials (MR-G.02)	
	<i>Session Chair: RP Tandon</i>	
	1200-1220	Virginie Serin (CI)
1220-1240	S Bathula (CI)	Influence of Rapid Solidification Parameters on Microstructure and Thermoelectric Performance of SiGe Nano-structured Alloys
1240-1300	Luyang Han (CI)	Type I Magnetic Contrast Imaging Using In-Column SE Detector
1300-1320	Yinlian Zhu (CI)	Atomic Mapping of Topological Domains in Strained Ferroelectric Thin Films
Day 2 (4 th February 2020) Tuesday	MS-10 Microscopy of Thin - Films, Coatings and Interfaces-I (MR-G.03)	
	<i>Session Chair: BS Murty</i>	
	1200-1220	Rahul Mitra (CI)

		Alloy Film
1220-1240	M Ghanashyam Krishna (CI)	Zno Nano/Micro Rod Array Based Heterostructures: Growth and Properties
1240-1300	Youngwoon Kim (CI)	Cathodoluminescence Characteristic of Ingan/Gan Mqws Grown on Polar and Semi-Polar Substrates
1300-1320	Ranjan Datta (CI)	Quantitative Atom Counting of Zn and O Atoms by Atomic Resolution Off-Axis and In-Line Holography
Day 2		
(4th February 2020) Tuesday	MS-11 Microscopy : Defects and Radiation Damage of Materials (MR-G.04)	
	<i>Session Chair: M Srinivas</i>	
1200-1220	M Grace Burke (CI)	"Seeing Is Believing":How Advanced Analytical Electron Microscopy is Addressing Materials Degradation Phenomena in Demanding Environments
1220-1240	Pratap Kumar Sahoo (CI)	Electron Microscopy Study of Thin Film to Hybrid Nano-Dots Evolution by Ion Beam Induced De-wetting
1240-1300	Sandip Bysakh (CI)	Transmission Electron Microscopy Studies of Advanced Ceramics, Composites, Rare-earth Doped Glass-fibres and Thin Films
1300-1320	Dheepa Srinivasan (CI)	Microstructures of Additively Manufactured Alloys Used in Gas Turbine
Day 2		
(4th February 2020) Tuesday	MS-12 Electron Microscopy: In-situ Techniques-II (MR-G.05)	
	<i>Session Chair: Max Haider</i>	
1200-1220	Fang Zhou (CI)	A Fully Integrated In-Situ Solution for Materials Testing in A SEM
1220-1235	Sai Ram Malladi (I)	Challenges with Liquid Cell In-Situ Electron Microscopy
1235-1250	Sašo Šturm	Radical-Induced Redox Chemistry inside a Liquid-Cell TEM
1250-1305	Nicholas Randall	Recent Innovation in In-Situ Extreme Mechanics at The Micro and Nanoscale
1305-1320	Shyam K Sinha	Nanosecond Electron Pulses in the Analytical Electron Microscopy of a Fast Irreversible Chemical Reaction
Day 2		
(4th February 2020) Tuesday	MS-13 Advances in Ion Microscopy and SEM- I (MR-G.06)	
	<i>Session Chair: K Bhanusankara Rao</i>	
1200-1220	Vignesh Viswanathan (CI)	High Throughput Milling for Preparation of Large Area Cross-Sections And Imaging Deeply Buried Structures Using a Femto-second Laser Integrated with a Gallium Cross beam
1220-1240	Patrick Lim Boon Keng (CI)	Advancement in Scanning Electron Microscope Imaging
1240-1300	Kaoru Sato (CI)	Latest Advances in SEM for the Characterisation of Metals
1300-1315	Ivan Gutierrez-Urrutia	Electron Channeling Contrast of Dislocations: Experimental Determination of Optimal Dislocation Imaging

Day 2 (4 th February 2020) Tuesday	MS-14 Electron Microscopy of Materials -II (MR-1.04)	
	<i>Session Chair: Bapi Saha</i>	
1200-1220	Keesam Shin (CI)	Microstructural Evolution of Ferrous Alloy and Nickel-Base Superalloy upon Ultrasonic Shot Peening
1220-1240	G Padmanabham (CI)	Microstructural Features in Laser Processed Materials
1240-1255	B B Jha	Impression Creep Behavior of Ti-6Al-4V Alloy: a Study on Various Creep Deformation Mechanisms By TEM Analysis
1255-1310	Saikat Acharya	Electron Microscopy of SS304L and SS316LN Alloys under SHPB Tests
Technical Sessions (LS)		
Day 2 (4 th February 2020) Tuesday	LS-4 3-D Structures of Macromolecules & Supramolecular Assemblies (MR-1.01)	
	<i>Session Chair: Aravind Penmatsa</i>	
1200-1220	Dan Clare (CI)	Electron Bio-imaging Centre
1220-1240	Somnath Dutta (CI)	Allosteric Activation and Conformational Changes of Cystathionine- β -Synthase (CBS) In Presence of S-Adenosyl Methionine and Substrate
1240-1300	Ed Morris (CI)	Cryo-EM and Mass Spectrometry Analysis of the Structural Basis of Cullin 2-RING E3 Ligase Regulation by the COP9 Signalosome
1300-1320	Manikandan Karrupaswamy	Cryo-EM Structure of Saccharomyces Cerevisiae Target of Rapamycin Complex2
Day 2 (4 th February 2020) Tuesday	LS-5 Microscopical Studies on Health & Disease and Immunocytochemistry (MR-1.02)	
	<i>Session Chair: Archana Singh</i>	
1200-1220	Sheikh Manjura Hoque (CI)	Role of Microscopy in the Design and Development of Molecular Imaging Probe
1220-1240	Abdul Mahmood Khan (CI)	Dimensions of Microscopy on Parasitology: an Appraisal of Its Relevance in Parasite Taxonomy, Diagnosis, Treatment and Teaching in the Era of Molecular Biology and Biotechnology
1240-1300	Ashik Mohammed	Morphology of Eye Lens Organelle-Free Zone in Three Primate Species: Role of the Nuclear Excisosome
1300-1320	Shreya Bandopadhyay	Homeodomain Transcription Factor Pitx2 Regulates Metabolic Alteration in Ovarian Cancer
Day 2 (4 th February 2020) Tuesday	LS-6 Biomedical Imaging, Diagnostics, Therapy and Biotechnology-I (MR-1.03)	
	<i>Session Chair: Shaon Ray Chaudhuri</i>	
1200-1220	Amit Jaiswal (CI)	Engineering Nanomaterials for Catalysis, Sensing and Biomedical Applications
1220-1240	Jyotsnendu Giri (CI)	Understanding the Nano-Topographical Effect on Stem Cells to Develop Novel Biomaterial for Stem Cell Delivery and Tissue Engineering
1240-1300	Aasheesh Srivastava (CI)	Electron Microscopic Investigations in to Molecular Self-Assembly and Material Transcription Using Them
1300-1320	Sristy Raman	HPV-16 E7 Oncoprotein's Individual Domains Exhibits

		In-Vitro Assembly
1320-1400	Lunch	
Day 2 (4 th February 2020) Tuesday	Plenary MS (Hall-1)	
	<i>Session Chair: Frances Ross</i>	
	<i>Session Co-Chair: Arup Dasgupta</i>	
1400-1430	Steve Pennycook (P)	Developing Energy Materials via Atomic-Resolution Microscopy and Spectroscopy
1430-1500	Park Chan Gyung (P)	Atom Probe Tomography & Microscopy (APT&M) : Significant Analytical Tool for Steel Research
Day 2 (4 th February 2020) Tuesday	Plenary LS (Hall-2)	
	<i>Session Chair: Ed Morris</i>	
	<i>Session Co-Chair: Prem Kausal</i>	
1400-1430	BV Venkataram Prasad (P)	2.7 A° Cryo-EM Structure of Rotavirus Core Protein VP ₃ , a Unique Capping Machine With a Helicase Activity
1430-1500	R Goswami (P)	TBD
1500-1530	Kayarat Saikrishnan (P)	Cryo-EM Structure of Mrcbc Reveals the Mechanism of GTP Hydrolysis By a AAA+ Motor
1530-1550	Tea	
Day 2 (4 th February 2020) Tuesday	Plenary MS (Hall-1)	
	<i>Session Chair: S Lele</i>	
	<i>Session Co-Chair: Pranesh Sengupta</i>	
1550-1620	R E Dunin Borkowski (P)	Aberration-Corrected Scanning Transmission Electron Microscopy of Natural Commensurate and Incommensurate Pyrrhotites
1620-1650	Paul Voyles (P)	Applications of 4D STEM to Crystalline and Amorphous Metals
1650-1720	Ondrej Krivanek (P)	Aberration-Corrected STEM and Ultra-High Energy Resolution EELS
Day 2 (4 th February 2020) Tuesday	Plenary LS (Hall-2)	
	<i>Session Chair: Stefan Raunser</i>	
	<i>Session Co-Chair: Parveen Goyal</i>	
1550-1620	Pradeep Luther (P)	Three-Dimensional Structure of the Basket weave Z-Band in Midshipman Fish Sonic Muscle
1620-1650	Koji Yonekura (P)	Cryo-ED and EM for Higher-Resolution and Higher-Precision Structures
1650-1720	Paula Da Fonseca (P)	Cryo-EM in Therapeutic Drug Discovery: the Proteasome Case
1730	Proceed to Chowmahalla Palace for Conference Dinner	
1900	Cultural Programs (Chowmahalla Palace)	
	<i>Dance by Guru Manjula Ramaswamy & Team (Rama Nataka Niketan)</i>	
	<i>Flute and Tabla Jugalbandi by Tejas & Mitali</i>	
2000	Conference Dinner: Sponsored by JEOL Ltd. (Chowmahalla Palace)	
Day 3 (5 th February 2020/ Wednesday)		
Day 3	Conference Plenary (Hall 1 & 2)	

(5 th February 2020) Wednesday	<i>Session Chair: Kazuo Furuya</i>	
	<i>Session Co-Chair: Satyam Suwas</i>	
0900-0945	Simon Ringer (CP)	Atomic-Scale Materials Design and the Enabling Role of Advanced Microscopy and Computational Simulation
0945-1030	Keiichi Namba (CP)	Cryo-TEM with a Cold Field Emission Gun that Moves Structural Biology into a New Stage
1030-1130	Tea+ Poster session + Exhibition	
1130-1200	Special Microscopy Session by John Mansfield (Hall-1)	
Technical Sessions (MS)		
Day 3 (5 th February 2020) Wednesday	MS-15 Electron Microscopy of Metals and Alloys-I: Light Alloys (MR-G.01)	
	<i>Session Chair: Simon Ringer</i>	
1130-1150	Ashim Mukhopadhyay (CI)	Formation of Phase Precipitates Parallel to {220} Al Planes in Artificially Aged AA8090 and AA2618 Aluminium Alloys
1150-1210	Arup Dasgupta (CI)	Imaging Dislocation Cores in Severe Plastically Deformed Nano-crystalline CP-Ti Alloy Through Geometrical Phase Analysis of Spherical Aberration Corrected HRTEM Images
1210-1230	Jer-Ren Yang (CI)	HAADF STEM Investigation of Atomic Scale Structures of η Precipitates in AA7050 Aluminium Alloy
1230-1250	Raghvendra Tewari (CI)	A Mechanism of Phase Transformation in Active Eutectoid Ti and Zr Based Systems
1250-1305	Anil Chaubey	Fabrication and Microstructural Evolution in Mg–Al –Ce Alloy
1305-1320	Venkat Appala	In-Situ Aluminium Foam Filled Steel Tubes Processed Through Powder Metallurgy
Day 3 (5 th February 2020) Wednesday	MS-16 EBSD, TKD and related Techniques-I (MR-G.02)	
	<i>Session Chair: R Balamuralikrishnan</i>	
1130-1150	Daniel Goran (CI)	Orientation Mapping and Imaging of Nano materials Using on-Axis TKD in the SEM
1150-1210	Rene De Kloe (CI)	TBD
1210-1230	Ravi Chandra Gundakaram (CI)	Study of Recovery and Recrystallization Using Electron Backscatter Diffraction
1230-1250	Subramnaya Sarma Vadlamani (CI)	On the Significance of Misorientation Axes of CSL Boundaries in Triple Junctions in Cubic Materials
1250-1305	Chandan Mondal (I)	Stability of 'Brass'-Texture and Associated Strength Anisotropy in High Strength Aluminum Alloys: an Electron Microscopy Perspective
1305-1320	Vajinder Singh (I)	Effect of Cr on Microstructure Evolution And Hot Workability of High Nb γ -TiAl Based Alloys
Day 3 (5 th February 2020) Wednesday	MS-17 Glass, Ceramic and Composites-I (MR-G.03)	
	<i>Session Chair: VV Bhanu Prasad</i>	
1130-1150	Shunsuke Muto (CI)	Local Stress Distribution in Phase-Separated Glass by Scanning Transmission Electron Microscopy-

		Cathodoluminescence
1150-1210	Hiroshi Jinnai (CI)	Static and Dynamical 3D Characterizations of the Organic-Inorganic Interface in Nano-Composite Materials Using Electron Microscopy
1210-1230	Joysurya Basu (CI)	Analysis of Complex Structures, Interfaces and Single Atom Chemistry through High Resolution Imaging
1230-1245	Atiar Rahaman	Crystallization of Ferroelectric BaBi ₂ Ta ₂ O ₉ Based Glass-Ceramics: Influence of Ceramization Heat-Treatment & Nucleating Agent on Microstructure and Dielectric Properties
1245-1300	N Sathish	A Study of Microstructure Evolution in Graphene Reinforced Metal Matrix Composites (GMMCs) ARB and PBF
1300-1315	Hrishikesh Bale	Multi-scale 3D Investigation of Damage in Angle-Interlocked Ceramic Matrix Composite Under In-Situ Loading
Day 3 (5 th February 2020) Wednesday	MS-18 Diffraction , Crystallography and Aperiodic Structures-I (MR-G.04)	
	<i>Session Chair: Vikas Kumar</i>	
1130-1150	Rajiv Kumar Mandal (CI)	Studies of Structural Transformations of Au-Cu Nano particles through Nano Beam Diffraction
1150-1210	Stavros Nikolopoulos (CI)	Advanced Materials Characterization with TEM Microscopy Using Diffraction Tomography, E-PDF and 4D Scanning Electron Diffraction in Combination with Novel Pixelated Detectors
1210-1230	N K Mukhopadhyay (CI)	Electron Microscopy of Al-Cu-Fe Quasicrystalline Composites and Al Matrix Nanocomposites Processed by Non-equilibrium Processing
1230-1245	Abhay Gautam (I)	A Bi-crystal Template Based Technique to Study Grain Boundary
1245-1300	Thakur Prasad Yadav (I)	Liquid Exfoliation of Quasicrystals: a Remarkable Process for Synthesis of Two Dimensional Metallic Alloys
1300-1315	Partha Pratim Das	Electron Diffraction Based Phase and Orientation Mapping in TEM to Characterize Maya Mural Paintings
Day 3 (5 th February 2020) Wednesday	MS-19 Advances in Transmission Electron Microscopy and Allied Techniques (MR-G.05)	
	<i>Session Chair: Virginie Serin</i>	
1130-1150	Satoshi Hata (CI)	Electron Tomography Using Diffraction Contrast: Methods and Applications
1150-1210	Ming Pan (CI)	The Future of Imaging for Transmission Electron Microscopy
1210-1230	Tetsuo Oikawa (CI)	Proper Protocol for Materials Analysis in TEM - A (Specimen Preparation) To Z (Data Analysis)
1230-1250	Jordi Arbiol (CI)	Free-Standing Nanostructures at Atomic Scale: from Growth Mechanisms to Local Properties
1250-1310	Knut Müller-Caspary (CI)	Materials Characterisation by Angle-Resolved STEM: Concepts, Applications, Challenges
Day 3	MS-20 Nano and Low Dimensional Materials-I (MR-G.06)	

(5 th February 2020) Wednesday	<i>Session Chair: Cristian Colliex</i>	
1130-1150	David Holec (CI)	Structure and Mechanical Properties of Nitride Superlattices: Insights and Predictions from Modelling Corroborated by Experiment
1150-1205	Jatis Dash (I)	Thickness-Insensitive Properties of α -MoO ₃ Nano sheets by Weak Interlayer Coupling
1205-1220	Chandra Sekhar Tiwary (I)	Synthesis of Atomically Thin 2D (Two-Dimensional) Materials
1220-1235	G Mangamma (I)	Understanding of Structure-Property Relationships in Certain Hybrid Nanostructures/Nano composites to Design Devices for Sensor and Energy Harvesting Applications
1235-1250	Amit Mondal	Characterization of Selective Dispersion Of Pt in ZSM-5/Alumina Mixture
1250-1305	Rajib Sahu	Atomic Level Study and Phase Impurity of MoAlB Thin Film
1305-1320	Jianbo Wang	Surface and Strain Mediated Reversible Phase Transformation in Quantum-Confined ZnO Nano wires
Technical Sessions (LS)		
Day 3 (5 th February 2020) Wednesday	LS-7 Microscopy Techniques for Biological Materials (MR-1.01)	
	<i>Session Chair: K Vinothkumar</i>	
1130-1150	Indrajit Lahiri (CI)	Using Streptavidin Affinity Grids to Overcome Preferred Orientation
1150-1210	Daniel Geiger	Label-Free, High Throughput, Optical Characterization and Sorting of Particles and Cells in Micro fluidic Systems
1210-1230	Philip Bastians	Large-Volume En-Bloc Staining and Targeted Imaging for Electron Microscopy
1230-1250	Manoj Mathew	A Ten-Colour Spectral Imaging Strategy to Reveal Localization of Gut Immune Cell Subsets
1250-1310	Pushkarraj Deshmukh	A Newly Designed Dual Grid Cryo Transfer Holder for TEM
Day 3 (5 th February 2020) Wednesday	LS-8 Electron Microscopy for Life Sciences-II (MR-1.02)	
	<i>Session Chair: Mekala Lakshman</i>	
1130-1150	Shourya Dutta-Gupta (CI)	Meta-surface Enhanced Infrared Absorption Spectroscopy and Imaging for Diagnosis Applications
1150-1210	Madhushudana Chary	Energy Dispersive X – Ray (EDAX-Ray) Analysis and Scanning Electron Microscope (SEM) Studies of Vegetable Oil Seeds
1210-1230	Mandakini Gogoi	Utilization of Microbial Formulation for Development of Liquid Bio-fertilizer
1230-1250	Tethi Biswas	Integrated Approach for Remediation and Microalgae Cultivation from Dairy Waste water
1250-1310	Smita Desale	Impact of Omega-3 Fatty Acids on Microglial Polarization in Tauopathy

Day 3 (5 th February 2020) Wednesday		
LS-9 Biomedical Imaging, Diagnostics, Therapy and Biotechnology-II (MR-1.03)		
<i>Session Chair: Walter Kauffman</i>		
1130-1150	AK Rengan (CI)	Understanding the Mechanism of Nano drug Delivery in Biological Systems Using Optical and Electron Microscopy
1150-1210	Renu John (CI)	Quantitative Phase Microscopy of Live Cells in Clinical Practice
1210-1230	Swetapadma Majhi	Anti-Proliferative Effects and Ultra-structural Changes of a Second Generation Naphthoquinone Derivative in Leishmania Donovanii.
1230-1250	Tejaswini Appidi	Microscopic Analysis of NIR Light Triggered Autophagy in Cancer Cells by Bioactive Nano Probes
1250-1310	Poonam Ratrey	Microscopy Based Approach Investigating the Bacterial Cell Membrane Damage by Peptide-Drug Hybrids
Day 3 (5 th February 2020) Wednesday		
LS-10 Electron Microscopy for Life Sciences-III (MR-1.04)		
<i>Session Chair: Jayati Sengupta</i>		
1130-1150	Masamichi Ashihara (CI)	Cryo-EM Tomography Workflow Merging Structural Biology with Cell Biology
1150-1210	AK Jain (CI)	The Effects of Smokeless Tobacco on Placenta: an Electron Microscopic and Hypoxia Expression Study
1210-1230	Sanjay Kashyap (I)	Liquid Cell STEM Imaging of Magnetotactic Bacteria and Real-Time Nucleation Studies of Protein Template Magnetic Nano crystals inside the TEM.
1230-1250	Purbasha Sarkar	Intra-cellular Localization of Micronutrients in Algae Cells Using Scanning Transmission Electron Microscopy-Energy Dispersive X-Ray Spectroscopy
1250-1310	Arnab Bhattacharjee	Therapeutic Modulation of Transforming Growth Factor (TGF)- β , Notch1, Stat3, IL6 And Wnt4 at mRNA Transcript Level in Human Colorectal Cancer Cell Line (HCT 116), Using a Novel Mgal-Layered Double Hydroxide (Mgal LDH) Nano particle Loaded miRNA 34a: a Possible Implication For Colon Cancer Management
1200-1400	CAPSM EC MEETING (Board Room, First Floor, HICC)	
1320-1400	Lunch	
1500-1700	IFSM EC MEETING (Board Room, First Floor, HICC)	
Day 3 (5 th February 2020) Wednesday		
Plenary-MS (Hall-1)		
<i>Session Chair: KK Ray</i>		
<i>Session Co-Chair: G Ravi Chandra</i>		
1400-1430	Hamish Fraser (P)	Identification of Structural Instabilities in Titanium Alloys Using Aberration-Corrected (Scanning) Transmission Electron Microscopy

1430-1500	Kazu Suenaga (P)	Single Atom Spectroscopy in Low-Dimensional Materials by Means of Low-Voltage STEM-EELS
1500-1530	Joachim Mayer (P)	Nano switches: Resistively Switching Chalcogenides and their Future Potential For Non-volatile Memory and Neuromorphic Computing
1530-1600	Peter Crozier (P)	Probing Vibrational, Electronic and Photonic States with Monochromated STEM EELS
Day 3 (5 th February 2020) Wednesday	Plenary-LS (Hall-2)	
	<i>Session Chair: Koji Yonekura</i>	
	<i>Session Co-Chair: Indrajit Lahiri</i>	
1400-1430	Stefan Raunser (P)	The Power of Cryo-EM to Elucidate Biological Mechanisms
1430-1500	Debnath Ghosal (P)	In-Situ Structures of Bacterial Secretion Systems by Electron Cryotomography
1500-1530	Jayati Sengupta (P)	Exploring Ribosome Structure and Dynamics by Cryo-Electron Microscopy
1530-1600	Im Joo Rhyu (P)	Cerebellar Plasticity in Response to Motor Learning Activities
1600-1700	Tea+ Poster Session + Exhibition	
Technical Sessions (MS)		
Day 3 (5 th February 2020) Wednesday	MS-21 Electron Microscopy of Metals and Alloys-II: Steels (MR-G.01) Session Sponsored by Tata Steel	
	<i>Session Chair: Basudev Bhattacharya</i>	
1700-1720	Yoon-Uk Heo (CI)	Grain Boundary Precipitation Behaviors in Fe-Mn-Ni-(Al) Maraging Steels
1720-1740	R Balamuralikrishnan (CI)	Role of Microstructural Characterization in the Development and Manufacture of High Performance Steels
1740-1800	Akula Durga Vara Prasad (CI)	3D – Pearlite Colony: the Origin of Ferrite Crystallography and Pearlite Morphology
1800-1820	Ujjwal Prakash (CI)	Characterization of Different Nano Oxide Particles Present in Forged 18Cr-Ferritic ODS Steels
1820-1840	Chitta Ranjan Das (CI)	Correlative Microscopy Analysis of Grain Boundary Segregation In P91 Steel Weld Joint
1840-1855	Manmath Kumar Dash	Study of Characteristic Morphology of Martensitic Sub-Structure Boundary In 9Cr-1Mo-0.1C Steel Using EBSD Micro-texture Data
Day 3 (5 th February 2020) Wednesday	MS-22 EBSD, TKD and Related Techniques-II (MR-G.02)	
	<i>Session Chair: AK Singh</i>	
1700-1720	Stefan Zaefferer (CI)	Electron Channelling Contrast Imaging (ECCI) – a Technique for Observation and Quantitative In-Situ Characterization of Crystal Lattice Defects in Bulk Samples
1720-1740	Satyam Suwas (CI)	Understanding the Mechanism of Metallurgical Processes Using Electron Back-Scattered Diffraction (EBSD) And its Consequences
1740-1755	Amit Bhattacharjee (CI)	Study of Fatigue/ Dwell Fatigue Behaviour of Near

		Alpha Titanium Alloys And Recrystallisation Behaviour of Metastable Beta Titanium Alloy, Ti-10V-2Fe-3Al Using EBSD
1755-1810	Nilesh Gurao (I)	Understanding the Role of Crystallographic Texture on Micro-Mechanisms of Deformation Using In-Situ Electron Back Scatter Diffraction
1810-1825	Yasuaki Yamamoto	Optimization of FE-SEM Electron Optics for High Speed EBSD Analysis Using CMOS Image Sensor
1825-1840	Venkatesh Narayanan	Characterization of NiCr-Cr ₃ C ₂ Composite Coatings Engineered by Cold Spraying
Day 3		
(5th February 2020) Wednesday	MS-23 Advances in Ion Microscopy and SEM- II (MR-G.03)	
	<i>Session Chair: TK Nandy</i>	
1700-1720	Wen-An Chiou (CI)	The Uniqueness of Cryo-FIB/SEM in Materials Research
1720-1740	Jiri Dluhos (CI)	Take Your Materials Characterization Further with The Latest FIB-SEMs from TESCAN
1740-1755	Phani Shashanka Karamched (I)	Examining Dislocations in the SEM
1755-1810	Anna Walkiewicz	Ultrathin Metal Coatings as a Solution for Successful SEM Imaging of Nano-Electro-spinning Fibers
1810-1825	Harish Donthula	Estimation of Dislocation Density Using Electron Channeling Contrast Imaging in Scanning Electron Microscope
1825-1840	Arijit Mitra	Scanning Electron Microscopy and Energy Dispersive X-Ray Spectroscopy Data Analysis by Simulation with the CASINO Software
Day 3		
(5th February 2020) Wednesday	MS-24 Other Complimentary and Emerging Techniques-I (MR-G.04)	
	<i>Session Chair: Ravindra Kumar</i>	
1700-1720	Darius Pohl (CI)	On the Creation of Coherent Electron Vortex Beams for Atomic Resolution Magnetic Measurements
1720-1740	Toshiaki Tanigaki (CI)	Electromagnetic Field Observations by High-Voltage Electron Holography
1740-1755	Shinji Aramaki	Development of Multi-Purposes CMOS Detector for Transmission Electron Microscope
1755-1810	Liu Nan	Multiscale 3D Investigation of Lightweight Materials With X-Ray Microscopy
1810-1825	Mani Krishna Karri	Machine Learning Techniques for Improved Microstructure Characterization and Quantification in SEM
1825-1840	Sarita	Evolution of Radiation Induced defects in Heavy Ion Irradiated SS316
Day 3		
(5th February 2020) Wednesday	MS-25 Magnetic, Ferro-electric and Multi-Ferroic Materials (MR-G.05)	
	<i>Session Chair: B Venkataraman</i>	
1700-1720	Bhaskar Majumdar (CI)	Microstructural Pathway of Rapidly Solidified (Fe _{1-x} Ni _x) ₈₈ Zr ₇ B ₄ Cu ₁ Ribbons

1720-1740	Ayana Ghosh (CI)	Exploring Functional Materials with Machine Learning
1740-1755	Ranjith Ramadurai (I)	Piezo-response Force Imaging of Functional Domains on Strained BiFeO ₃ Epilayers
1755-1810	Suman Sarkar (I)	Strange Photo Induced Actuation Response of Co-Ni-Al Based Ferromagnetic Shape Memory Alloys: An Electron Microscope Study
1810-1825	Suryanarayana Jammalamadaka (I)	Effect of Demagnetization Field on Charge Transport Of TiO ₂ Based Dye Sensitized Solar Cell
1825-1840	Manju Unnikrishnan	Rare-Earth Based Multi-ferroic Oxides: an Intermixing of Complex Properties and Applications Thereof
1840-1855	He Zheng	Domain Structures and Dynamic Evolutions in Metal Oxides
Day 3		
(5th February 2020) Wednesday	MS-26 Advances in Atom Probe Tomography (MR-G.06)	
	<i>Session Chair: Manish Roy</i>	
1700-1720	Peter Clifton (CI)	TBD
1720-1740	Aniruddha Biswas (CI)	Case Studies of Quantitative Evaluation of Spinodal Decomposition: Combinatorial APT & SANS Analyses
1740-1800	Pradeep K G (CI)	Correlative Transmission Kikuchi Diffraction and Atom Probe Tomography Analysis of Nanostructures in Additive Manufactured Materials
1800-1815	R Veerababu (I)	TEM and Atom Probe Characterization of Secondary Hardening Ultra-High Strength Steels with 1wt. % and 3wt. % Mo
1815-1830	Surendra Kumar Makineni (I)	Interplay between Lattice Defects and Chemistry: a Case In Superalloys
1830-1845	Deodatta Shinde	Investigation of Irradiation Damage of Proton Irradiated Zr-1Nb Alloy Using Atom Probe Tomography
1845-1900	Sudip Kumar Sarkar	A Multi-Scale Investigation of Phase Separation in Thermally Aged Binary Modelled Fe-20 At.% Cr Alloys
Day 3		
(5th February 2020) Wednesday	MS-27 Electron Microscopy of Materials-III (MR-1.04)	
	<i>Session Chair: Dinesh Srivastava</i>	
1700-1720	Martin Peterlechner (CI)	Transmission Electron Microscopy of Amorphous Structures and Dynamics: Simulations and Experiments
1720-1735	JKN Murthy	Microstructural Evolution During Sliding Contact of a Cobalt Based Alloy ULTIMET
1735-1750	Ajit Panigrahi	Liquid Phase Sintered Tungsten Based Heavy High Entropy Alloy: Evolution of Microstructure
1750-1805	Dasarath Maji	Microstructural and Morphological Characterizations of Citrate Gel Combustion Derived Nano crystalline (U _{1-y} Ce _y)O _{2+x} Solid Solutions
1805-1820	Nachiket Keskar	Cellular Precipitation in Ni-Cr Alloy: Effect of Starting Microstructure
1820-1835	Pushpalatha Devi Yerranagu	Microstructural Evolution in (α + β) Region of Zr-2.5wt% Nb as a Function of Annealing Temperature and Holding Time
1835-1850	Md Mofizur Rahman Mollah	Micro Structural Studies of As-Cast U-XZr (X= 40.5, 52 & 75 Wt.%) Alloys

Technical Sessions (LS)		
Day 3 (5 th February 2020) Wednesday	LS-11 Ion Channels and Receptors (MR-1.01)	
	<i>Session Chair: Dan Minor</i>	
1700-1720	Aravind Penmatsa (CI)	Cryo-EM Structure of an ATP-Release Channel at Sub-Nanometer Resolution
1720-1740	Appu Singh (CI)	Structure and Function of Epithelial Calcium Channel TRPV6
1740-1800	Barathy Vinayagam	Electron Cryo-Microscopy Structure of the Canonical TRPC4 Ion Channel
1800-1820	Ananth Burada	Cryo-EM Structure of Glud1-Orphan Delta Receptor Reveals a Novel Architecture in the Ionotropic Glutamate Receptor Family
1820-1840	Tusar Acharya	TRPV4 Channels Acts as a Mitochondrial Protein and is Present in the ER-Mitochondrial Contact Sites
Day 3 (5 th February 2020) Wednesday	LS-12 Electron Microscopy for Life Sciences-IV (MR-1.02)	
	<i>Session Chair: Tirumala K Chowdary</i>	
1700-1720	Nandini Katare	Scanning Electron Microscope: Emerging Tool for Forensic Examination of Damaged Clothing
1720-1740	Banajit Bastia	Ultrastructural Study of Psoriatic Skin
1740-1800	Swasti Barman	Morphoanatomy of Olfactory Neuroepithelium in an Indigenous Fish, <i>Lepidocephalichthys Guntea</i> (Hamilton, 1822): An Ultrastructural Study
1800-1820	Shilpa Gorla	Constant Light-Induced Adverse Changes in Photoreceptor Cells of Chick Retina
1820-1840	Pardeep K Vaishnav	A New Method of Skin Tissue Preparation for Transmission Electron Microscopy
Day 3 (5 th February 2020) Wednesday	LS-13 Microscopical Studies and Biochemical Imaging (MR-1.03)	
	<i>Session Chair: Renu John</i>	
1700-1720	Sharada Swant (CI)	Microscopic Analysis of In-Vitro Developed Multi-Layered Co-Culture Model From Tissues of Tongue Tumour: Utility in Studying Tumour Invasion Process
1720-1740	Parash Prasad	Reprogramming of Mitochondrial Dynamics And Bioenergetics upon Glutamine Starvation in Cancer Cell
1740-1800	Syed Alvi	The "Nano To Micro" Transition of Hydrophobic Drug Crystals in Cancer Therapeutics Evidenced by Microscopy
1800-1820	Shikha Chaudhary	Standardization of TEM Methodology to Diagnose Primary Ciliary Dyskinesia of Pediatrics Patient
1820-1840	Subarna Dutta	Regulation of Hetrochromatin Protein 1 in Lamin A Associated Skeletal Muscular Dystrophy
1800-1900	EMSI AGM (Hall - 1, Ground Floor, HICC)	
Day 4 (6 th February 2020/Thursday)		
Day 4 (6 th February 2020) Thursday	Conference Plenary (Hall 1 & 2)	
	<i>Session Chair: Angus Kirkland</i>	
	<i>Session Co-Chair: Arup Dasgupta</i>	
0900-0945	Eiji Abe (CP)	Structure Determination of Complex Alloys

0945-1030	Georgios Skiniotis (CP)	G Protein Coupled Receptors (GPCRs)
1030-1130	Tea+ Poster Session + Exhibition	
1130-1300	Special Session on Technical Writing by Springer (Hall-1)	
Technical Sessions (MS)		
Day 4 (6 th February 2020) Thursday	MS-28 Electron Microscopy of Metals and Alloys-III: Superalloys (MR-G.01)	
	<i>Session Chair: GK Dey</i>	
1130-1150	Sophie Primig (CI)	Multiscale Characterization of Next Generation Ni-Based Superalloys Made via Conventional and Advanced Manufacturing
1150-1210	Dipak Kumar Das (CI)	Development of Superalloy Castings and Thermal Barrier Coating at DMRL
1210-1230	Sankaran S (CI)	On the Grain Boundary Structures, Precipitation, Segregation and Phase Transformation in a Ni-Cr-Fe-Alloy
1230-1245	Sujoy Kar (I)	Correlative Microscopy to Study γ' Precipitate Evolution During Ageing, its Coarsening Kinetics, Solute Partitioning, Phase Chemistry, and Lattice Misfit in Haynes 282
1245-1300	Joy Mitra	Structural Changes in Ni Base Alloy 625 at High Temperature
1300-1315	Santhi Srinivas N C	Deformation Behaviour of Inconel 617 Alloy under Monotonic and Cyclic Loading
Day 4 (6 th February 2020) Thursday	MS-29 Electron Microscopy of Materials-IV (MR-G.02)	
	<i>Session Chair: T Jayakumar</i>	
1130-1150	Uta Klement (CI)	Thermal Stability of White Layers Intended as Process-Induced Functional Surfaces
1150-1210	Sandip Ghosh Chowdhury (CI)	Critical Assessment of Local Equilibrium Conditions During Bulk Nano-Pearlitic Transformation in Multicomponent Steels
1210-1230	Krishanu Biswas (CI)	Stability of High Entropy Alloys Phases in Multicomponent Alloys
1230-1245	Subhradeep Chatterjee (I)	Effect of Nb-Content on the Microstructure and Phase Evolution in the CoCrFeNi _{2.1} Nb _x High Entropy Alloys
1245-1300	Vishwanadh Bathula	Microstructural Characterization of Carbide Phase Formation During Thermo-Mechanical Processing of Nb-12Zr-0.1C Alloy
1300-1315	Jayesh Parmar	Facile Cross-Sectional TEM Sample Preparation of WS ₂ Nano tubes for TEM Studies
Day 4 (6 th February 2020) Thursday	MS-30 Electron Microscopy: Energy Materials-II (MR-G.03)	
	<i>Session Chair: Kamanio Chattopadhyay</i>	
1130-1145	Dinesh Topwal (I)	New Generation of Photovoltaic Material: Understanding the Fundamentals
1145-1200	Narayanan Tharangattu Narayanan (I)	Role of Microstructure Studies in Energy Devices
1200-1215	Amartya	In-Situ Studies During Electrochemical Cycling of

	Mukhopadhyay (I)	Electrode Materials for Advanced Alkali Metal-Ion Batteries
1215-1230	Aditi Halder (I)	Designing Materials for Energy Conversion Using Earth-Abundant Elements
1230-1245	Jayanta Mukhopadhyay	Nano crystalline Multi-component Perovskites of Ba/La-Sr-Co-Fe-O System with Varying Particulate Morphology through Facile Solution Synthesis: It's Importance for Electrode Activation in Solid Oxide Electrolyser Cell
1245-1300	Sudakar Chandran	Low Dimensional Nano structured Materials for Fast Charging Battery Applications
1300-1315	Alpesh Shukla	Electron Microscopy of Battery Materials: Crystallographic Ambiguities and Experimental Challenges
Day 4 (6 th February 2020) Thursday	MS-31 Electron Microscopy of Electronic and Photonic Materials-II (MR-G.04)	
	<i>Session Chair: Hamish Fraser</i>	
1130-1150	Johannes Bernardi (CI)	Correlation of Microstructure and Superconducting Properties of Nb ₃ Sn Wires for the Future Circular Collider
1150-1210	Kazuhisa Sato (CI)	Evaluation of the Maximum Usable Thickness of Semiconductor Crystals in High-Voltage Scanning Transmission Electron Microscopy
1210-1225	Rajan Jha (I)	TBD
1225-1240	Akhilesh Pandey (I)	Structural Evaluation of III-Nitride Thin Films and Multilayers for Device Applications
1240-1255	Viswanath Balakrishnan (I)	Engineering 2D Materials and Their Heterostructures for Optoelectronics and Energy Applications
1255-1310	Aman Arora	Cathodoluminescence Study of Hexagonal Voids and Micropipe Formation in PVT Grown 4H-SiC Crystals
Day 4 (6 th February 2020) Thursday	MS-32 Chemistry and Spectroscopic Techniques in Electron Microscopy-II (MR-G.05)	
	<i>Session Chair: Ondrej Krivanek</i>	
1130-1150	M Sundararaman (CI)	Effect of Continuous Cooling on γ' Microstructure Evolution in Co Base Superalloy
1150-1205	Rojalin Sahu (I)	Study of Luminescence and Magnetic Properties of a MOF-5 Metal-Organic Framework via Transition Metal Doping
1205-1220	Yohei Kojima	Chemical State Analysis of Fe via "Flank Method" Using SXES
1220-1235	Kei-ichi Fukunaga	Exploring Detection Limit in Energy Dispersive X-Ray Spectroscopy with Modern Instrumentations in Transmission Electron Microscopy
1235-1250	Pranjal Kumar Gogoi	Low-Loss Electron Energy Spectroscopy of Van Der Waals Heterostructures
Day 4 (6 th February 2020) Thursday	MS-33 Other Complimentary and Emerging Techniques-II (MR-G.06)	
	<i>Session Chair: A Venugopal</i>	

1130-1150	Tim Petersen (CI)	Electron and Optical Microscopy by Studying Wave Singularities
1150-1210	Jun Yamasaki (CI)	Precise Analysis of Transmission Attenuation in Mass-Thickness Contrast TEM Images
1210-1230	Murugesh Thimmanna (CI)	TMC Precision Floor Passive & Active Vibration Control and Magnetic Field Cancellation Systems
1230-1245	Yemliha Bilal Kalyoncu	The Cheetah: Noiseless, Fast and Dead-Time Free Detectors for TEMs
1245-1300	Satanand Mishra	AI Based Trend Analysis and Pattern Discovery of FESEM Micrographs
Day 4		
(6th February 2020) Thursday	MS-34 Structure-Property Correlation (MR-1.04)	
	<i>Session Chair: T Sreenivas</i>	
1130-1150	Babu Viswanathan (CI)	Analytical Electron Microscopy to Decipher Compositional and Structural Instabilities on Microstructural Evolution in Ni Base Superalloy Alloys Tested under Extreme Conditions
1150-1210	Komal Kapoor (CI)	TBD
1210-1230	Pinaki Prasad Bhattacharjee (CI)	Understanding Remarkable Strength-Ductility Synergy in Heterogeneous HEAs Using EBSD And TEM Analysis
1230-1245	Kadhiravan Shanmuganathan	Elucidating Structure-Property Relationships in 3D Printed Polymer Composites
1245-1300	Anup Kumar Khare	Effect of Iron Addition in NiTi Shape Memory Through Powder Metallurgy Route
1300-1315	Vishal Singh	Study of Micro-Mechanical Response of Zr During Nano-Indentation in Presence and Absence of Irradiation Induced Defects
Day 4		
(6th February 2020) Thursday	MS-35 Budding Researchers' Symposium (MR-1.03)	
	<i>Session Chair: Peter Crozier</i>	
1130-1140	Rajiv Kumar Pandey	Development of Porous ZnO Thin Film via Kirkindel Effect for Enhancement in Piezoelectric Property
1140-1150	Seungwoo Son	Formation of ZnO Monolayer From Zn on Graphene Oxide
1150-1200	Yuki Okuda	Quantum Electron Microscopy Test bed: Towards Manipulating Coherent Electron Waves
1200-1210	Hoel Laurent Robert	Momentum-Resolved, Energy-Filtered and Focal Series STEM for The Investigation of Angle-Dependent Electron Scattering
1210-1220	Yukihiro Takayama	Development of a Cryogenic Quantum Electron Microscopy Test bed
1220-1230	Piyush Haluai	An Atomic Level Study of Local Strain Fields on Multiple Low-Index Ceria (CeO ₂) Nano particle Surfaces
Technical Session LS		
Day 4		
(6th February 2020) Thursday	LS-14 Macromolecular Assemblies-I (MR-1.01)	
	<i>Session Chair: Pradeep Luther</i>	
1130-1150	Tanweer Hussein (CI)	Conformational Changes in Eukaryotic Initiation Factor

		3 Complex During Translation Initiation
1150-1210	Sandip Kaledhonkar (CI)	Structural Basis of Class I Release Factor Interaction with Class II Release Factor from 70S Mycobacterium Smegmatis
1210-1230	Prem Kaushal (CI)	The Cryo-EM Structure of the Group II Intron
1230-1250	Juhi Singh	Structural and Biochemical Studies of rRNA Methyltransferase Involved in Conferring Antibiotic Resistance.
1250-1310	Rajani Kant Chittela	Transmission Electron Microscopy Studies on DNA Repair Proteins: a Structure-Function Relationship
Day 4 (6 th February 2020) Thursday	LS-15 Microscopy for Life Sciences-V (MR-1.02)	
	<i>Session Chair: Ruchi Anand</i>	
1130-1150	Pavel Hozak (CI)	New Function of Nuclear Lipids Uncovered by Microscopic and Molecular Approaches
1150-1210	Sampurna Ghosh	DRP1 Promotes Stem-Like Traits and Chemoresistance upon Glutamine Starvation in Cancer
1210-1230	Sk Hasanur Rahaman	Delivery of Sh-RNA By Ca-Al LDH Mediated Inorganic Nano particles: a Therapeutic Implication for Cancer
1230-1250	Pankaj Kumar Madheshiya	Structural Studies on the Central Transport Channel–Nup93 Complex (CTC-Nup93 Complex) of Mammalian Nuclear Pore Complex
1250-1310	Priti Bhardwaj	Boswellic Acid Inhibits Benzo(A)Pyrene Induced Lung Carcinogenesis in Rats: a Gross Histological and Ultra Structural Study
1315-1400	Lunch	
Day 4 (6 th February 2020) Thursday	Plenary MS (Hall-1)	
	<i>Session Chair: Barry Carter</i>	
	<i>Session Co-Chair: N Ravishankar</i>	
1400-1430	Angus Kirkland (P)	from Millions of Images to a Few Numbers; High Speed Imaging of Defect Dynamics in Low Dimensional Materials
1430-1500	Max Haider (P)	Instrumentation for the Advancement of High Resolution Conventional and Scanning Transmission EM
1500-1530	TK Nandy (P)	Deformation Behaviour of Disordered and Ordered Body Centered Cubic Alloys
Day 4 (6 th February 2020) Thursday	Plenary LS (Hall-2)	
	<i>Session Chair: Mihnea Bostina</i>	
	<i>Session Co-Chair: Appu Singh</i>	
1400-1430	PD Gupta (P)	Experimental Electron Microscopy in Biosciences
1430-1500	Dan Minor (P)	Structural Studies of Ion Channel Function, Pharmacology, and Regulation
1500-1530	Mikhail Kudryashev (P)	Structure of Ryanodine Receptor Ryr1 in Native Membranes by Cryo-EM
1530-1600	Manidipa Banerjee (P)	Asymmetric Reconstructions Reveal Essential Details about Virus Capsid Disassembly and Assembly
1600-1700	Tea+ Poster Session + Exhibition	

Technical Sessions (MS)		
Day 4 (6 th February 2020) Thursday	MS-36 Electron Microscopy of Metals and Alloys-IV: Light Alloys-II (MR-G.01)	
	<i>Session Chair: G Jagan Reddy</i>	
1700-1715	Kausik Chattopadhyay (I)	Surface Nanostructuring Induced by Surface Mechanical Attrition Treatment in AA7075 Alloy
1715-1730	Amit Arora (I)	Fabrication and Microstructure Characterization of Friction Stir Welding for Additively Manufactured Ti-6Al-4V Plates
1730-1745	Supriya Bera (I)	Identifying Contrasting Phases in Novel Bimodal Microstructure of AlCuNi Alloys
1745-1800	Bijay Kumar Show (I)	High Temperature Wear Mechanisms in Al-17Si-5Cu Alloy after Short Duration Isothermal Heat Treatment
1800-1815	Chung TsaiFu	Nucleation and Growth Mechanisms in Between Different Types of η Precipitates in the Al-Zn-Mg-Cu Aluminium Alloy
1815-1830	Mythili R	Effect of Microstructure on Nano-Mechanical Properties of Ti-5Ta-2Nb Alloy
1830-1845	Vivek Kumar Chandravanshi	Study of Hot Deformation Behavior of Beta Titanium Alloys in Two Phase Condition by EBSD Characterization
Day 4 (6 th February 2020) Thursday	MS-37 Corrosion and Oxidation (MR-G.02)	
	<i>Session Chair: S Panwar</i>	
1700-1720	V S Raja (CI)	TBD
1720-1740	Xiuliang Ma (CI)	Unmasking Chloride Attack on the Passive Film of Metals
1740-1800	R K Satpathy (CI)	Contributions of Electron Microscopy Towards Understanding of TGO Formations In Multi-Layered YSZ/LZ Thermal Barrier System In Severely Oxidizing Aero-Engine Environments
1800-1815	Sumantra Mandal (I)	Tailoring Microstructure to Alleviate Aqueous and High-Temperature Hot Corrosion Degradation in Structural Materials
1815-1830	Zafir Alam (I)	Deformation in Thermal Barrier Coating (TBC) Ensemble Unravelling Using Micromechanical Testing and Advanced Site-Specific Microscopy Techniques
1830-1845	Swati Ghosh Acharyya (I)	Bulk Synthesis of Few Layer Graphene by Green Route for Novel High Temperature Hydrophobic Corrosion Resistant Coatings on Steel
1845-1900	Anamul Haq Mir	Microstructures of Corroded Glasses and their Radiation Stability
Day 4 (6 th February 2020) Thursday	MS-38 Nano and Low Dimensional Materials-II (MR-G.03)	
	<i>Session Chair: Joachim Mayer</i>	
1700-1720	Shikha Verma (CI)	Resistive Switching Memory, Thermal Transport and DNA Biocompatibility for Ion Irradiated Metal-Oxide and Graphene Films
1720-1735	Khusboo Rakha (I)	Correlative TEM and APT Studies of Ausformed Nano structured Bainite

1735-1750	Madan Mohan Ghosh (I)	An Experimental Study on Synthesis, Characterization, Thermal Conductivity And Stability of Nano fluids for Advanced Thermal Applications
1750-1805	Suman Kumari Mishra (I)	Microstructural and Mechanical Behavior of Nanocomposite Hard Coatings
1805-1820	Amritendu Roy (I)	Phase Engineered Gallium Iron Oxide: A Low Band Gap, Novel Room Temperature Ferroelectric
1820-1835	Bratindranath Mukherjee (I)	Development of Highly Efficient Non PGM Photo-Electrocatalyst for Complete Water-Splitting.
1835-1850	Jinsub Park	Formation of Metal-Oxide Micro Spheres Monolayer and Applications Optoelectronic Devices
Day 4 (6 th February 2020) Thursday	MS-39 Materials in Geology, Mineralogy and Archaeology (MR-G.04)	
	<i>Session Chair: B Saravanan</i>	
1700-1720	Pranesh Sengupta (CI)	Radiation Damage within Natural Crystals
1720-1740	Jaishri Sanwal (CI)	Role of Microscopy in the Reconstruction of Extreme Events of Climate and Tectonics: Results from Himalaya and South Andaman Island
1740-1800	Sankar Bose (CI)	Zircon and Monazite as Accessory Minerals in Rocks: their Occurrence, Identification, Characterization and Importance
1800-1815	Yamuna Singh	TBD
1815-1830	Pisutti Dararutana	Identification of Ancient Rock Art Found at Lampang (Northern Thailand)
1830-1845	D Chandrasekharam	Occurrence of Nano-Diamonds in Mukundpura Meteorite
1845-1900	Vishwanath uppugunduri	Optimizing Process Plant Efficiency by Audit of Lead , Zinc , Silver Ore Flotation Performance at No 4 Concentrator at Rampura Agucha Using Results from Zeiss Automated Mineralogy Systems to Identify Improvement Opportunities
Day 4 (6 th February 2020) Thursday	MS-40 Electron Microscopy: Functional Materials-I (MR-G.05)	
	<i>Session Chair: Johannes Bernardi</i>	
1700-1720	Josef Zweck (CI)	Recent Developments in Imaging of Magnetic and Electric Fields
1720-1740	Aloke Kanjilal (CI)	Exploration of Metal oxide Microstructures in Futuristic Devices
1740-1800	Rajender Singh (CI)	Electron Microscopic Studies of Some Ferrite Nano particles and Rf-Sputtered Thin Films
1800-1815	Mithun Palit (I)	Unravelling Process-Structure-Property Interplay in Co-Based Permanent Magnet Using Electron Microscopy Techniques
1815-1830	Jyoti Ranjan Mohanty (I)	Understanding Magnetic Thin Film System with Microscopy and Modeling
1830-1845	Govind Gupta (I)	Materials for Fabrication of Smart Optical and Gas Sensors
1845-1900	Ravi Gautam	Microstructure-Magnetic Properties Correlation of Fe-P(Si) Aged Alloys
Day 4	MS-41 Electron Microscopy of Materials-V (MR-G.06)	

(6 th February 2020) Thursday	<i>Session Chair: Ian Jones</i>	
1700-1720	Janghyun Jo (CI)	Investigation of Metal-Insulator Transition in SrRuO ₃ Thin Films Using Transmission Electron Microscopy
1720-1735	B Hymavathi	Investigations on Physical Properties of Flexible Cr Doped CdO Thin Films Deposited on Mica Substrates by Reactive DC Magnetron Sputtering
1735-1750	Srinivasa Rao Nelamarri	Effects of Rapid Thermal Annealing on The Structural Characteristics of (K,Na)NbO ₃ Thin Films
1750-1805	Manoj Kumar Gupta	Zinc Silicate-Graphene Piezoelectric Hybrid Nano generators for Scavenging Mechanical Energies
1805-1820	Himalay Basumatary	Electron and Magnetic Force Microscopy Studies in E-Beam Deposited Tb-Fe Thin Films Exhibiting Large Perpendicular Magnetic Anisotropy
1820-1835	Jitendra Bahadur	Hollow TiO ₂ /SiO ₂ Microspheres through Reactive Assembly at the Interface of Aqueous Droplets
1835-1850	Purvash Soni	Comparative EDS Analysis of TiCN and TiAlN Multilayered Structures on Cemented Carbide Substrates
Day 4 (6 th February 2020) Thursday	MS-42 Electron Microscopy of Materials-VI (MR-1.04)	
	<i>Session Chair: G Appa Rao</i>	
1700-1715	Ranjan Singh (I)	Effect of Pr Substitution on Microstructure and Magnetic Properties of SmCo ₅ type Magnets
1715-1730	Hari Narayan Das	Controlled Synthesis with Morphological Properties of Silica Encapsulated Magnesium Ferrite Superparamagnetic Nano spheres by Ultrasonic Spray Pyrolysis Technique for Biomedical Application
1730-1745	Padmanapan Saravanan	HRTEM Interface Analysis on Sm-Co Magnetic Thin Films Grown on Hot Si (100) Substrates
1745-1800	J Arout Chelvane	Magnetic Microscopy Studies in Magnetostrictive Alloys
1800-1815	Premkumar M	Ultra-Fine Nanocrystallization of Fe-Rich Hetero-Amorphous Soft-Magnetic Alloys
1815-1830	Rudheer Bapat	Elucidation of The Formation of WS ₂ Nano tubes Using High Resolution Electron Microscopy
1830-1845	Arvindha Babu	On the Structural Stability of Melt Spun Fe _{95-x} Zr _x B ₄ Cu ₁ (X = 7 and 9) Ribbons and Correlation with their Magnetic Properties
Day 4 (6 th February 2020) Thursday	MS-43 Budding Researchers' Symposium-II (MR-1.03)	
	<i>Session Chair: Dipak Kumar Das</i>	
1700-1710	Hwangsun Kim	Atomic Scale Transmission Electron Microscopy Study of Long Period Stacking Order Structures in Mg-TM-RE Alloy
1710-1720	Juhyun Oh	Ex-Situ TEM Analysis on State-of-Charge Rebalancing Effect of LiCoO ₂ Cathode Material In Lithium-Ion Batteries
1720-1730	Sangmin Lee	The Electronic Structure of the Polymorphs of Au via STEM/EELS and First-principles Calculations
1730-1740	Junsik Mun	Observation of Spontaneous Phase Transition of

		Ferroelectric Domain Structures by Temperature with Cryogenic HAADF-STEM
1740-1750	Joshua Vincent	Atomic-Scale in Situ and Operando Studies of Catalytically-Driven Oxygen Transfer Reactions at Pt/CeO ₂ Interfaces
1750-1800	Hyoung Gyun Kim	The Microstructure Observation of Brownmillerite Thin Film as the Memristive Devices With In-Situ TEM Research
1800-1810	Poowadon Chai-in	Effects of Zinc Oxide Nanoparticles Size on Zinc Phosphate Formation, Inhibitory Antibacterial Activity
1810-1820	Zhanpeng Xian	The Effects of Amorphous SnO ₂ Shell Layer on The Light Response Speed of ZnO-Based UV Photodetector
1820-1830	Manish Singh	TEM Studies of Segregation in a Ge-Sb-Te Alloy During Heating
Technical Sessions (LS)		
Day 4 (6 th February 2020) Thursday		LS-16 Macromolecular Assemblies-II (MR-1.01)
<i>Session Chair: Dan Clare</i>		
1700-1720	Vengadesan Krishnan (CI)	Visualization of Pilus Architecture from Probiotic, Lactobacillus Rhamnosus GG
1720-1740	Ramajujam Srinivasan (CI)	Molecular Machineries in Bacteria: Segregating Genomes and Dividing the Cell
1740-1800	Archana Kumari	Structural Insights of F-Actin Marker: Lifeact
1800-1820	Sailakshmi Velamoor	Investigating Keratin Intermediate Filament Formation in the Wool Follicle Using Electron Microscopy
1820-1840	Priyanka Garg	Display of Influenza Mini-Stem Immunogens on Protein Nanoparticle by Cryo-EM
Day 4 (6 th February 2020) Thursday		LS-17 Electron Microscopy for Life Sciences-VI (MR-1.02)
<i>Session Chair: Daniel Geiger</i>		
1700-1720	Naresh Kumar Manda	Role of nucleolus in regulating the nuclear size and shape
1720-1740	Punit Kumar	Ultrastructural Study of the Human Cochlear Nerve at different ages
1740-1800	Indrani Nandi	Conformational Switch of Mycobacterium Secretory Protein MPT63 Induces Macrophage Cell Death via Membrane Pore Formation
1800-1820	Sayantani Chall	Development of Fluorescent Metal Nanoclusters for Sensitive Detection of Biological Analytes in-Vitro and Inside Cells
1820-1840	Shashi Nandar Kumar	Placental Pathology Associated with Occupational Exposure
Day 5 (7 th February 2020/Friday)		
Day 5 (7 th February 2020) Friday		Plenary MS (Hall-1)
<i>Session Chair: Syo Matsumara</i>		
<i>Session Co-Chair: Partha Ghosal</i>		
0900-0930	Christian Colliex (P)	New Advances and Impact of Hyper-spectral Electron

		Microscopy in Materials Science
0930-1000	Gautam K Dey (P)	Study of Structurally Disordered Solids by Transmission Electron Microscopy
1000-1030	Stephen Donnelly (P)	Observation of Ion-Solid Interactions In-Situ in a Transmission Electron Microscope.
Day 5 (7th February 2020) Friday		
Plenary LS (Hall-2)		
<i>Session Chair: Manidipa Banerjee</i>		
<i>Session Co-Chair: Sucheta Tripathy</i>		
0900-0930	Tapas Chandra Nag (P)	Experimental Retinal Degeneration: Animal Models to Understand the Pathogenesis of Age-Related Macular Degeneration
0930-1000	Rafael-Leiro Fernandez (P)	Capturing the Elusive DNA Mismatch Repair Machinery by Cryo-EM
1000-1030	Vinothkumar Kutti Ragunath (P)	A Novel Metal-Bound Active Site in a Hydrolytic Enzyme
1030-1130	TEA+ Poster Session + Exhibition	
Day 5 (7th February 2020) Friday		
Plenary MS (Hall-1)		
<i>Session Chair: Tim Peterson</i>		
<i>Session Co-Chair: DVV Satyanarayana</i>		
1130-1200	Madangopal Krishnan (P)	TBD
1200-1230	Indradev Samajdar (P)	Combining Techniques of Microstructural Characterization: an Emerging Possibility
1300-1400	Lunch	
Technical Sessions (MS)		
Day 5 (7th February 2020) Friday		
MS-44 Electron Microscopy of Metals and Alloys-IV (MR-G.01)		
<i>Session Chair: Ashim Mukhopadhyay</i>		
1400-1415	Pradyumna Parida	Electron Microscopy Studies on Nano-Dispersoid Characteristics in Oxide Dispersoid Strengthened Alloys
1415-1430	Nagini Macha	TBD
1430-1445	Rajnish Goyal	Role of Microstructure on Self-Sharpening Behaviour of Tungsten Base Materials During Penetration under Ballistic Impact
1445-1500	Sukla Mondol	Heterogeneous Nucleation of θ' on L1₂ Precipitates and their Effect on Elevated Temperature Strength of Al-6Si-4.5Cu-0.5Zr Alloy
1500-1515	Abhishek Sharma	Defect Structures and Deformation Mechanisms During Creep of a Tungsten-Free Cobalt Based Superalloy
1515-1530	Subhasis Sinha	Microstructural Diversity in Transformative High Entropy Alloys and its Impact on Deformation Mechanisms
1530-1545	Tarak Nath De	Effect of Process Parameter Induced Variation in

		Deformation on the Microstructural Development and Resultant Tensile Properties of Cold Flow-Formed AA6082 Al Alloy Tubes
1545-1600	Premkumar Manda	Microstructural Characterization of Hexagonal α Phase Precipitates in Metastable β Titanium Alloys
Day 5 (7 th February 2020) Friday	MS-45 Glass, Ceramic and Composites-II (MR-G.02)	
	<i>Session Chair: Shunsuke Muto</i>	
1400-1415	Sumana Ghosh	Bright Prospect of Glass-Ceramic Coatings for Strategic Applications
1415-1430	Rama Rao Panugothu	Mechanical Properties of Ti-Alloy Joint with $Ti_{20}Zr_{20}Cu_{60-x}Ni_x$ (X = 10, 20, 30, 40 and 50) Metallic Glass Ribbon as Filler Metal
1430-1445	Biswajit Samanta	Compatibility Study of Molten ZrSn Alloy With Y_2O_3 Ceramic at 2173 K
1445-1500	Samar Kumar Medda	ZrO ₂ Incorporated Aqueous TiO ₂ Based Nano composite Solar Reflective Coating for Energy Saving Application
1500-1515	Mohammad Ashiq	Graphene/AlSi10Mg Composite by Laser Powder Bed Fusion Process
1515-1530	Muhammad Anwar	Electron Microscopy Studies of (SrCa)TiO ₃ Ceramics
1530-1545	Malvika Karri	Interaction Behavior of Borosilicate Glass with Alloy 693
1545-1600	Jiten Das	Correlation between the Crack Growth Resistance and SiC Grain Size Distribution of Two SiC Containing Ceramic Materials
Day 5 (7 th February 2020) Friday	MS-46 Electron Microscopy of Materials-VII (MR-G.03)	
	<i>Session Chair: Archana Paradkar</i>	
1400-1415	Swati Biswas (I)	Scanning Electron Microscopy: Techniques, Applications and Challenges from Jet Propulsion Systems Development Perspective
1415-1430	Sarika Kalyan Kamal (I)	Effect of Ph Variation on Size, Morphology And Purity of Tungsten Nanoparticles Synthesized from Scrap
1430-1445	C V S Kiran (I)	Nanoscale Microstructural Characterization of Additively Manufactured IN718: a Comparison with Wrought IN718
1445-1500	Amit Kumar	Fracture Surfaces of Commercial Aluminium Alloys Tested for Evaluation of Impact Toughness
1500-1515	Rabisankar Dutta	Development of Thin Aluminide Coatings on Alloy 800 Substrate
1515-1530	Sumita Santra	Synergistic Effect of Cold Work and Annealing Temperature in Texture of 18-Cr ODS
1530-1545	Mahesh Kumar Kumawat	Fatigue Deformation Substructure in a Free standing Pt-Aluminide Bond Coat
1545-1600	Jai Tawale	Importance of Certified Reference Materials in Scanning Electron Microscope (SEM)

Day 5 (7 th February 2020) Friday	MS-47 Electron Microscopy: Functional Materials-II (MR-G.04)	
	<i>Session Chair: RP Mathur</i>	
1400-1415	Manivel Raja	Development of Spintronics Thin Films and Sensors
1415-1430	Raghavendra Juluri	Impact of a SiGe Interfacial Layer on the Growth of a SiC Layer on Si with Voids at the Interface
1430-1445	Borra Rajesh Kumar	Structural, Surface Morphological, Optical And Non-Linear Optical Constants Of Titanium Doped Cu ₂ O Thin Films
1445-1500	Veeraswamy Yaragani	Structural Characteristics of Cr Doped In ₂ O ₃ Thin Films Grown by Pulsed Laser Deposition
1500-1515	Harjeet Nath	Preparation and Characterization of Highly Porous Activated Carbon from Lingo-Cellulosic Biomass Available in North East India
1515-1530	Adiraj Srinivas	Multiferroic Properties of (100-X) Na _{0.5} Bi _{0.5} TiO ₃ - (X) NiFe ₂ O ₄ Composite System (X = 20,40,60, 80)
1530-1545	Sriparna Chatterjee	Superior Performance of Copper Oxide Thin Film for Cold Electron Emission
1545-1600	Prabahar K	Hetero-Epitaxial Interface in the Vertically Ordered Columnar Structures of Lead-Free Ba _{0.85} Ca _{0.15} Zr _{0.1} Ti _{0.9} O ₃ / CoFe ₂ O ₄ Thin Film Composites with High Magneto-Electric Effect
Day 5 (7 th February 2020) Friday	MS-48 Nano and Low - dimensional Materials-III (MR-G.05)	
	<i>Session Chair: Satoshi Hata</i>	
1400-1415	Pratap Kollu (I)	Nano composite 2D Material Matrix for Battery Anode Materials
1415-1430	Kallol Mondal (I)	TBD
1430-1445	Sreedevi Varam (I)	Structural and Mechanical Characterization of Bulk Nanocrystalline Al-Based Alloys
1445-1500	Loveleen Kaur Brar (I)	Facile Synthesis of Multi Doped Graphene for Supercapacitor Electrode Applications
1500-1515	Satish Gupta	Scanning Electron Microscopy (SEM-EDS) of Poytrimellitimid- Melamide-Methylene-Phenol Copolymers
1515-1530	Priya Madhuri K	Nanoscale Current Mapping of Organic Semiconductor Thin Film in the Presence of Gaseous Dopants
1530-1545	Arnab Ghosh	Application of Boosted LSPR of Coherently Trapped Endotaxial Au Nano-Structures in Si Protected by ZnO Film Towards Self-Powered Panchromatic Photodetection
Day 5 (7 th February 2020) Friday	MS-49 Techniques and Applications-II (MR-G.06)	
	<i>Session Chair: Uta Klement</i>	
1400-1415	Debalay Chakrabarti (CI)	A Review on the Grain Size Bimodality in Steel: Evolution, Characterization and Effect
1415-1430	Chayan Kanti Nandi (I)	Unique Fluorescent Nano dot As a Marker to Ease the

		Method of Correlative Light and Electron Microscopy
1430-1445	Umananda Bhatta (I)	XTEM Analysis of Endotaxial Ge Nanostructures Embedded in Si (100) Matrix
1445-1500	Jay Ghatak	Transmission Electron Microscope Beyond Imaging and Diffraction
1500-1515	Balaji Birajdar	Silver Induced Layer Exchange and Crystallization of A-Si Films Investigated Using In-Situ STEM
1515-1530	Dinesh Singh	Uncertainty Measurements in Chemically Synthesized Stable Uniform Sized Gold Nano Particles for TEM/HRTEM Calibration
1530-1545	Amardeep Singh	Particle Size and Sphericity Comparison of FCC Catalysts Using Dynamic Image Processing
1545-1600	Bhagyashree Chalke	In-Situ TEM Studies of Phase Transformations in Crystalline and Amorphous Materials
Day 5 (7 th February 2020) Friday	MS-50 Electron Microscopy of Materials-VIII (MR-1.04)	
	<i>Session Chair:</i>	
1400-1415	Alex Daniel	Development, Testing and Applications of a Passive Thermal Protection System
1415-1430	Manish Chandra	Morphology and EDX Analysis of La-Cd and Y-Cd Alloys Prepared by Reductive Extraction
1430-1445	Virupaksha T	An Experimental Investigation on Performance of Indigenous Coolant Pump Developed for Aircraft Piston Engine
1445-1500	A Sambasiva Rao	Microstructural Characterization of Ball Screw in Electro Mechanical Actuator
1500-1515	Shiba Narayan Sahu	Characterisation of Ceramic Hollow Spheres- Al Alloy (LM6) Syntactic Foams Made through Stir Casting
1515-1530	Jagannath Chanda	Role of Microscopic Techniques in Tyre Forensic Analysis
1530-1545	Md Al-Mamun	Synthesis and Characterization of Graphene Oxide from Agro Waste
1545-1600	Amit Srivastava	A Study on Glass Forming Ability and Thermal Stability of Metallic Glasses $Fe_{57.2}Co_{30.8}Zr_{7-x}Hf_xB_4Cu_1$ (X = 3, 5, And 7)
Day 5 (7 th February 2020) Friday	MS-51 Electron Microscopy of Materials-IX (MR-1.03)	
	<i>Session Chair:</i>	
1400-1415	Rajakishore Sahoo	Morphological Instability of γ' Precipitates in a Nickel Base Superalloy During Cyclic Thermal Ageing
1415-1430	Himanshu Sekhar Panda	Transition Metal Based Binary/Ternary Oxides as Cathode Materials for Asymmetric Solid-State Supercapacitor Device
1430-1445	Pabitra Ghosh	Studies on The Solid State Reactions of $LaCl_3$ with Li_2O : Scanning Electron Microscope - a Tool in the Analysis
1445-1500	Anjali Kulkarni	Inspection of Microholes by Scanning Electron Microscope Formed by Advanced Manufacturing Process on Metals
1500-1515	CM Omprakash	Measurement of Creep Strain in DS CM247 Alloy

		Specimen from Core to Surface Using Multi-Frequency Alternate Current Potential Drop Technique
1515-1530	Sreenu Banothu	Microstructure and Tensile Behaviour of Hot Isostatically Processed High Strength PM Nickel Base Superalloy
1530-1545	Mrityunjay Hazra	Failure Analysis of Air Starter Torsion Shafts of An Aeroengine – Revelation of Shear Fracture Through Scanning Electron Microscopy
Technical Sessions (LS)		
Day 5 (7 th February 2020) Friday	LS-18 Electron Microscopy for Life Sciences-VII (MR-1.01)	
	<i>Session Chair: Mikhail Kudryashev</i>	
1400-1420	Ruchi Anand (CI)	Unravelling the Allosteric Regulation Mechanism of Purine Biosynthetic Pathway Enzyme
1420-1440	S Krishna	TBD
1440-1500	Payel Mondal	Physiochemical and Structural Characterization of Newly Isolated Enteric Bacteriophage
1500-1520	Ishika Pramanick	Structural and Functional Analysis of Cystathionine-Beta-Synthase of Mycobacterium Tuberculosis by Cryo-Electron Microscopy
1520-1540	Bani Mallick	Isolation and Structural Characterization of a Lytic Shigella Phage by Transmission Electron Microscopic Study
1540-1600	Sreeparna Biswas	Characterization of a Viral Small Heat Shock Protein
Day 5 (7 th February 2020) Friday	LS-19 Electron Microscopy for Life Sciences-VIII (MR-1.02)	
	<i>Session Chair: Pavel Hozak</i>	
1400-1420	Mekala Lakshman (CI)	Conventional Electron Microscopy is only Weapon to Burst the Cell Details in Various Biological Samples under One Medicine Concept
1420-1440	Nishakumari Singh	Studies on Autophagy Associated Apoptosis in Colorectal Cancer Cell Lines by Selective Estrogen Receptor Modulator Ormeloxifene
1440-1500	Aneek Banerjee	Deciphering the Function of a Porin on V. Cholerae Ribosome From 3D Structure of Porin-Ribosome Complex
1500-1520	Ashrani Prusty	Exigency of Microscopic Techniques to Study the Surface Phenomenon on Neutralizing Ph of Some Novel Cyano-bacteria
1520-1540	Anshu Dutta	Optimization of Key Parameters in the Vitrification of Frozen-Hydrated Electron Microscopy Grids
CP: Conference Plenary, P: Plenary, CI: Conference Invited, I: Invited		
1600-1630	High Tea	
1630-1730	Valedictory and Award Function (Hall 1 & 2)	