

Programme Schedule
Eleventh National Conference on Solid State Ionics (NCSSI-11)
December 21-23, 2015
Venue: Council Hall, Tezpur University (TU), Assam

December 20, 2015, Sunday

Date	Time	Programme
December 20, 2015	19:00-21:30	Pre-conference Dinner and Registration (Venue: Guest House, TU)

Day 1: December 21, 2015, Monday

Time	Programme
8:30-9:00	Registration (Venue: Council Hall, TU)
9:00-9:30	Inaugural Session : Inaugural speech by Prof. Mihir Kanti Chaudhuri, Vice-Chancellor, TU
Technical Session I	
Chairperson: Prof. S.L. Agrawal, Dept. of Physics, APS University, Rewa	
9:30-10:15	PL1: Charge carrier dynamics, relaxation and scaling in ionic conductors Speaker: Prof. Aswini Ghosh, Dept. of Solid State Physics, IACS, Kolkata
10:15-10:30	Tea break
10:30-11:00	I 1: Use of redox additive electrolyte – possible strategy to simultaneously enhance the specific energy and power in asymmetric supercapacitors Speaker: Dr. Amreesh Chandra, Dept. of Physics, IIT Kharagpur
11:00-11:30	I 2: Ionic liquid based proton conducting polymer electrolyte membranes Speaker: Prof. D. K. Rai, Dept. of Physics and Material Science, IIIT, Noida
11:30-11:45	Tea break
Technical Session II	
Chairperson: Prof. Sujata Tarafdar, Dept. of Physics, Jadavpur University, Kolkata	
11:45-12:15	I 3: Role of polymer electrolytes in dye sensitized solar cells Speaker: Prof. Bhaskar Bhattacharya, School of Basic Sciences and Research, Sharada University, Greater Noida
12:15-12:30	O 1: Carbon based polymer electrode for solid state energy storage devices Speaker: Dr. Nirbhay K Singh, Dept. of Applied Physics, Krishna Engineering College, Durg
12:30-12:45	O 2: Defect interaction mediated charge carrier dynamics in Gd-Y co-doped nanocrystalline ceria Speaker: Dr. Abhigyan Dutta, Dept. of Physics, The University of Burdwan, Burdwan
12:45-13:00	O 3: Studies on PVP: PVA blend based polymer gel electrolytes for battery applications Speaker: Dr. R.P. Kumar, Dept. of Physics, Govt. Maharaja College, Chhatarpur
13:00-14:00	Lunch break (Venue: Cafeteria)
Technical Session III	
Chairperson: Prof. Aswini Ghosh, Dept. of Solid State Physics, IACS, Kolkata	
14:00-14:30	I 4: Electrochemical performance of hierarchical and layered systems Speaker: Prof. Subodh Kumar De, Dept. of Materials Science, IACS, Kolkata
14:30-15:00	I 5: High rate supercapacitors with graphene-based electrodes and succinonitrile-incorporated gel polymer electrolytes Speaker: Dr. S. A. Hashmi, Dept. of Physics & Astrophysics, University of Delhi, New Delhi
15:00-15:15	O 4: Poly(vinyl alcohol) and chitosan-based chemical hydrogel electrode binders for direct borohydride fuel cells and supercapacitors Speaker: Dr. Nurul Alam Choudhury, Dept. of Chemistry, Nagaland University
15:15-15:30	O 5: Studies on polyvinyl alcohol/1-butyl-3-methylimidazolium hydrogen sulfate solid polymer electrolyte system for electrochemical applications

	Speaker: Mr. Kuldeep Mishra, Dept. of Physics, Jaypee University Anoopshahr, Bulandshahr
15:30-15:45	Tea break
Technical Session IV	
Chairperson: Dr. Sevi Murugavel, Dept. of Physics, University of Delhi, New Delhi	
15:45-16:15	I 6: Simulating effect of gamma irradiation on polymer electrolytes through a fractal model Speaker: Prof. Sujata Tarafdar, Dept. of Physics, Jadavpur University, Kolkata
16:15-16:30	O 6: Density functional theory: how useful for electrolytic systems Speaker: Prof. Mohan L Verma, Dept. of Applied Physics, Shri Shankaracharya Technical Campus, Bhilai
16:30-16:45	O 7: Synthesis and characterization of ionic liquid based stable ionogel monoliths obtained using controlled gelation of silica matrix Speaker: Dr. Abhishek Kumar Gupta, Dept. of Physics & Astrophysics, University of Delhi
16:45-17:00	O 8: Mixed conducting behaviour of solvent free CuI dispersed composite polymer electrolyte Speaker: Mr. Amit Saxena, Dept. of Physics, Hindustan College of Science and Technology, Mathura
17:00-17:15	O 9: Electrical characterization of ionic liquid based magnesium ion conducting polymer gel electrolytes Speaker: Mr. Ashish Gupta, Dept. of Physics, Govt. Model Science College, Rewa
17:15-17:30	O 10: Electrical properties of nanocomposite polymer gel electrolyte doped with ZnO nano filler Speaker: Mr. Dharmendra Jain, Centre of Nanotechnology, Rajasthan Technical University, Kota
17:30-17:45	O 11: Characterization of ion transport property in hot press cast solid polymer electrolyte (SPE) films: [PEO: AgCOOCH ₃] Speaker: Ms. Tripti Bala Sahu, School of studies in Physics & Astrophysics, Pt. Ravishankar Shukla University, Raipur
End of day 1	

Day 2: December 22, 2015, Tuesday

Time	Programme
Technical Session V	
Chairperson: Prof. Subodh Kumar De, Dept. of Materials Science, IACS, Kolkata	
9:00-9:45	PL 2: Organics as an inspirational source for designing ion and mixed conductors Speaker: Prof. A.J. Bhattacharyya, Solid State and Structural Chemistry Unit, IISc Bangalore
9:45-10:15	I 7: Polymer electrolyte composites: Novel approach Speaker: Dr. Amita Chandra, Dept. of Physics & Astrophysics, University of Delhi
10:15-10:45	I 8: Unravelling the interplay between particle size, defect concentration and lithium ion transport in LiFePO ₄ Speaker: Dr. Sevi Murugavel, Dept. of Physics, University of Delhi, New Delhi
10:45-11:00	O 12: Studies on structural, thermal and electrical properties of ionic liquid [BDMIM][BF ₄] + PVA based polymer electrolyte films Speaker: Dr. A. L. Saroj, Dept. of Physics, BHU, Varanasi
11:00-11:15	Tea break
Technical Session VI	
Chairperson: Prof. D. K. Rai, Dept. of Physics and Material Science, IIIT, Noida	
11:15-11:45	I 9: Ionic Liquid based Mesoporous Materials and Polymeric Membranes and its Applications in Electrochemical Devices Speaker: Prof. R. K. Singh, Dept. of Physics, BHU, Varanasi
11:45-12:15	I 10: Ions rule the body....& mind: The amazing ionics of the human body Speaker: Prof. C. S. Sunandana, School of Physics, University of Hyderabad, Hyderabad
12:15-12:30	O 13: Nanoionic resistive switching devices based polymer electrolyte films – effect of temperature and ambient pressure Speaker: Dr. Saumya R. Mohapatra, Dept. of Physics, NIT Silchar, Silchar
12:30-12:45	O 14: Study of ion transport property and nano-ionic effect on ionic conductivity in K ⁺ -ion conducting dry polymer electrolytes Speaker: Ms. Priyanka Kesharwani, School of studies in Physics & Astrophysics, Pt. Ravishankar Shukla University, Raipur

12:45-13:00	O 15: PVDF-HFP composite material for application as electromagnetic interference shield Speaker: Mr. Manoj Kumar Vyas, Dept. of Physics and Astrophysics, University of Delhi
13:00-14:00	Lunch break (Venue: Cafeteria)
14:00-16:00	Poster (P1 – P46) Session and Tea Venue: Council Hall Foyer
Technical Session VII	
Chairperson: Dr. S. A. Hashmi, Dept. of Physics & Astrophysics, University of Delhi	
16:00-16:30	I 11: Understanding the ion dynamics of polymer electrolytes from impedance spectroscopy Speaker: Dr. Neelam Srivastava, Dept. of Physics (MMV), BHU, Varanasi
16:30-16:45	O 16: Studies of thermal, electrical and structural behavior of ionic liquid confined in ordered mesoporous MCM-41 Speaker: Mr. Alok Kumar Tripathi, Dept. of Physics, BHU, Varanasi
16:45-17:45	Indian Solid State Ionics Society Meeting
Cultural Evening, Time: 18:30-19:30, Venue: KBR Auditorium, TU	
End of Day 2	

Day 3: December 23, 2015, Wednesday

Time	Programme
Technical Session VIII	
Chairperson: Prof. R. K. Singh, Dept. of Physics, BHU, Varanasi	
9:00-9:30	I 12: Achieving low temperature ion conducting polymers : Contradictions & Reality Speaker: Dr. Awalendra K. Thakur, Dept. of Physics and Meteorology, IIT, Patna
9:30-10:00	I 13: Recent progress in the development of supercapacitor Speaker: Dr. S.K.Tripathi, Dept. of Physics, JUET, Guna
10:00-10:30	I 14: New and renewable power sources: Lithium ion batteries and organic solar cells Speaker: Dr. Jai Prakash Tiwari, Division of Physics of Energy Harvesting, NPL, New Delhi
10:30-10:45	O 17: The influence of 1-ethyl-3-methylimidazolium bis(trifluoromethylsulfonyl) imide ionic liquid on the properties of zinc-ion conducting poly (vinyl chloride) /poly (ethyl methacrylate) blend-based polymer electrolytes Speaker: Ms. C.M.Sai Prasanna, Dept. of Energy, University Of Madras, Chennai
10:45-11:00	Tea break
Technical Session IX	
Chairperson: Dr. Amita Chandra, Dept. of Physics & Astrophysics, University of Delhi	
11:00-11:30	I 15: Revisiting normal ionic systems: Tailoring electrical transport by ionic liquid dispersion Speaker: Dr. Anshuman Dalvi, Dept. of Physics, Birla Institute of Technology & Science
11:30-12:00	I 16: Trends in sodium battery research conversion reactions Speaker: Dr. Amrtha Bhide, Dept. of Physics, NIT Puducherry, Karaikal
12:00-12:15	O 18: Characterization and dielectric properties of Fe- doped KNbO ₃ single crystals Speaker: Mr. Naresh M. Patil, Laxminarayan Institute of Technology, RTM Nagpur University
12:15-12:30	O 19: Studies of Lithium ion conducting polymer gel electrolyte membranes based on polymer poly(vinylidene fluoride-co-hexafluoropropylene), 1-butyl-3 methylimidazolium bis(trifluoromethanesulfonyl)imide ionic liquid Speaker: Shalu, Dept. of Physics, BHU, Varanasi
12:30-12:45	O 20: MnO ₂ -nanorods based pseudocapacitor with plastic crystal incorporated gel polymer electrolyte (GPE) Speaker: Mohd. Yasir Bhat, Dept. of Physics and Astrophysics, University of Delhi, Delhi
12:45-13:00	O 21: An investigation of conformational states of bulk and confined ionic liquid 1-ethyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide in silica nanopores probed by crystallization kinetics study Speaker: Mr. Yogendra Lal Verma, Dept. of Physics, BHU, Varanasi
13:00-14:00	Lunch break (Venue: Cafeteria)
Technical Session X	
Chairperson: Prof. C. S. Sunandana, School of Physics, University of Hyderabad	
14:00-14:30	I 17: Emerging solid ionic membranes for polymer electrolyte fuel cell applications Speaker: Dr. Biraj Kumar Kakati, Dept. of Energy, Tezpur University

14:30-15:00	I 18: Ion transport in swift heavy ion irradiated P(VdF-HFP)-(MMT-PAni) nanocomposite polymer electrolytes Speaker: Prof. Ashok Kumar, Dept. of Physics, Tezpur University
15:00-15:30	I 19: Anatase TiO ₂ as anode for lithium/sodium-ion batteries Speaker: Dr. Shyamal Kumar Das, Dept. of Physics, Tezpur University
15:30-15:45	O 22: Sodium-ion conducting gel polymer electrolyte incorporated with sulfonium based ionic liquid for electrical double layer capacitors Speaker: Mr. Nitish Yadav, Dept. of Physics and Astrophysics, University of Delhi, Delhi
15:45-16:00	O 23: First principle study of PPV-PEO-LICLO4 in the context of light emitting electrochemical cell Speaker: Rachna Singh, Dept. of Applied Physics, Shri Shankaracharya Technical Campus, Bhilai
16:00-16:15	O 24: Study of ionic conduction in Poly(Vinyl Butral) based polymeric membrane Speaker: Mr. Kamlesh Pandey, National Centre of Experimental Mineralogy and Petrology, University of Allahabad, Allahabad
16:15-16:30	O 25: Phase transition, Li ⁺ conductivity and structural stability of Tin substituted lithium garnets Speaker: Ms. C. Deviannapoorani, Dept. of Physics, Pondicherry University, Puducherry
16:30 -17:30	Valedictory Session and Tea
17:30-19:30	Local Sightseeing: Agnigarh visit

PL: Plenary Talk (40 + 5 = 45 min.); I: Invited Talk (25 + 5=30 min.);

O: Oral Presentation (12 + 3 = 15 min.); P: Poster Presentation.