

Materials & Technologies for Energy Conversion and Storage (M-TECS 2018)

Sept. 26-29, 2018 at DAE Convention Centre, Anushaktinagar Mumbai -400094

PROGRAMME

September 26, 2018 (Wednesday)

8:30-9:30	Registration		
9:30-10:00	Inauguration		
10:00-10:30	Inaugural Lecture	Evolving New Energy Paradigm to Assure Energy Security and Protection of Climate	Anil Kakodkar, <i>Former Chairman AEC</i>
10:30-11:00	Keynote Lecture	Energy Conversion & Storage: A Glimpse of BARC Activities	Srikumar Banerjee, <i>Chancellor HBNI</i>
11:00-11:30	TEA		
11:30-12:00	Session-1	PL1: Nuclear Fuel Complex: A Centre for Development and Processing of Advanced Materials for Nuclear and Strategic Applications	Dinesh Srivastava, <i>Chief Executive NFC</i>
12:00-12:30		IT1: Challenges for Energy Conversion at Elevated Temperatures	I.V. Dulera, <i>BARC</i>
12:30-13:00		IT2: Technology Development and Material Challenges for Core Catcher Design of Indian Nuclear Power Reactors	A.K. Nayak, <i>BARC</i>
13:00-14:00	LUNCH		
14:00-14:30	Session-2	IT3: Photovoltaic Solar Technologies: A Review of Different Alternatives and Applications	Francisco Fabregat-Santiago, <i>Jaume I University, Spain</i>
14:30-15:00		IT4: Air and Moisture Stable Halide Perovskite Materials and Metal-Organic Frameworks for Solar Energy Conversion	Aravind Kumar Chandiran, <i>IIT Madras</i>
15:00-15:30		IT5: Publishing in Academic Journals: Tips to Help you Succeed	Sarah Blatchford, <i>Taylor and Francis, Australia</i>
15:30-15:45	TEA		
15:45-17:00	Session-3	Oral Presentations (Paper ID: 3079 P S Ghosh, 3119 A Arulraj, 3160 Vani Pawar, 3176 Rajni Antony, 3226 Mrinal Pai)	
17:00-18:30	Session-4	Poster Presentations (Paper ID: 3000-3081)	
19:00-21:00	DINNER		

September 27, 2018 (Thursday)

9:30-10:30	Session-1	PL2: Alkali Ion Battery Systems for Electric Mobility: Materials Challenges	Satishchandra Ogale, <i>IISER Pune</i>
10:30-11:00		IT6: Mass and Charge Transport across the Solid Electrolyte Interphase of Lithium-Ion Batteries: Experiments on a Model SEI	Bernhard Roling, <i>University of Marburg, Germany</i>
11:00-11:30	TEA		
11:30-12:00	Session-2	IT7: Skutterudite-Based Thermoelectric Technology for Integration into a Potential eMMRTG for Space Power Applications	T. Caillat, <i>NASA, USA</i>
12:00-12:30		IT8: Low Thermal Conductive Chalcogenides for High Performance Thermoelectrics	Kanishka Biswas, <i>JNCASR Bangalore</i>
12:30-13:00		IT9: Perspective in Thermoelectric Power Generation: Materials to Device Development	Ajay Singh, <i>BARC</i>
13:00-14:00	LUNCH		
14:00-14:30	Session-3	IT10: Magnetic Energy Materials: An Overview of Current activities	S.M. Yusuf, <i>BARC</i>
14:30-15:00		IT11: Design of Materials for Solar Energy Utilization	A.K. Tyagi, <i>BARC</i>
15:00-15:30		IT12: Solar Cell Technologies Developed at BARC and Present Status	A.K. Chauhan, <i>BARC</i>
15:30-15:45	TEA		
15:45-17:00	Session-4	Oral Presentations (Paper ID: 3001 A Aravind, 3034 B Ravikumar, 3149 Sanjay Kumar, 3151 M. Goswami, 3197 Ranu Bhatt)	
17:00-18:30	Session-5	Poster Presentations (Paper ID: 3082-3164)	
19:00-21:00	DINNER		

September 28, 2018 (Friday)

9:30-10:30	Session-1	PL3: Development of Materials, Devices and Analytical Instruments	S.C. Gadkari, <i>BARC</i>
10:30-11:00		IT13: Role of Defects and Diffusion in Metals-Silicides and Nanoporous Materials	G. Amarendra, <i>IGCAR</i>
11:00-11:30	TEA		
11:30-12:00	Session-2	IT14: Development of Supercapacitors using Nanostructured Thin Film Electrodes by PVD Technique (Sputtering)	Ramesh Chandra, <i>IIT Roorkee</i>
12:00-12:30		IT15: Toxic gas detection – Development of Portable H ₂ S sensor with monitor	Manmeet Kaur, <i>BARC</i>

12:30-13:00		IT16: Membrane Reactors for Iodine Sulphur Thermochemical Process of Hydrogen Production	Soumitra Kar, BARC
13:00-14:00	LUNCH		
14:00-14:30	Session-3	IT17: Tuning Functional Oxides	Suza Elizabeth, IISc Bangalore
14:30-15:00		IT18: High Performance Piezoelectric Materials for Energy Storage and Harvesting	Binay Kumar, University of Delhi
15:00-15:30		IT19: Efficiency Enhancement in Phosphors Assisted Dye Sensitized Solar Cells (DSSC) with Cost Effective Chalcogenide Electrodes	S. Moorthy Babu, Anna University, Chennai
15:30-15:45	TEA		
15:45-17:00	Session-4	Oral Presentations (Paper ID: 3004 M Majumder, 3133 S Sahu, 3156 M Tyagi, 3183 S G Singh, 3214 P.K. Jha)	
17:00-18:30	Session-5	Poster Presentations (Paper ID: 3165-3254)	
19:00-21:00	CONFERENCE DINNER		

September 29, 2018 (Saturday)

9:30-10:30	Session-1	PL4: Recent Advances in Thermal Energy Storage using Phase Change Materials	D. Yogi Goswami, University of South Florida & Director, Clean Energy Centre, USA
10:30-11:00		IT20: Application of Solution Process Organic Semiconductors in Printable Solar Photovoltaic Devices	Gang Li, The Hong Kong Polytechnic University, Hong Kong
11:00-11:30	TEA		
11:30-12:00	Session-2	IT21: Solid Oxide Fuel Cell: Materials and Technology	R.N. Basu, CGCRI Kolkata
12:00-12:30		IT22: Origin of the Magnetic Effects in Supercapacitors – Contribution from Electrode Materials to Electrolytes	Amreesh Chandra, IIT Kharagpur
12:30-13:15	Session-3	Oral Presentations (Paper ID: 3037 Rashmi, 3052 Manindra, 3204 S Kailasa)	
13:15-14:00	LUNCH		
14:00-15:30	Session-4	Concluding	
15:30-15:45	TEA		

Please note:

- All Orals need to be compulsorily presented as poster also.
- The posters should be prepared in size 90 cm x 90 cms. A pdf copy of the final poster should be send by e-mail to convener at akc.barc@gmail.com . It will be communicated to judges for a pre-evaluation of poster awards.