

ENGINEERING SCIENCES

4th January, 2020

Sectional President	Dr Asit Kumar Das , Reliance Industries Limited, Jamnagar, Gujarat
Sectional Recorder	Dr Pankaj Kumar Roy , Faculty of Inter Disciplinary Studies, Law & Management, Jadavpur University, Kolkata
Sectional Secretary	Dr H. G. Ashok , Agricultural Engineering, GKVK, Bengaluru
02:00 – 06:00 PM	
Venue	Cluster II – College of Agriculture, South Block : Hall 10
Presidential Address	Asit Kumar Das Reliance Industries Limited, Jamnagar, Gujarat <i>Key contributions of Engineering Science in Sustainable Development of India</i>
Platinum Jubilee Lecture	Haripada Bhunia Prof & Head, Chemical Engineering Dept, Thapar Institute of Engineering & Technology, Patiala <i>CO₂ capture and utilization : An intense area of research</i>
Keynote Lecture	R.K. Malhotra FIPI (Federation of Indian Petroleum Industry), Ex Director-Indian Oil Corporation Ltd R&D Centre, Faridabad <i>Cleaner & Sustainable Fuels & Related Technologies for Transport : Challenges and Opportunities</i>
	O. P. Bahl Indian Carbon Society, New Delhi. Ex-Emeritus Scientist CSIR-NPL, Ex-UN Chief Technical Advisor (C Fiber) & UNIDO consultant <i>Role of Advance C materials in India's development</i>
Invited Lecture	Parimal A Parikh Emeritus Professor, Chemical Engineering Dept, SV NIT, Surat <i>Valorizing biomass fermentation products : Acetone & Butanol</i>
	Prasad Deodhar Bhagirath Graamvikas Pratisthan, Sindhudurg, Maharashtra <i>Destination : Clean Fuel</i>
	S. Lalitha Nagesvari United States-India Educational Foundation, Fulbright Commission in India, Chennai

	<i>Information session on Fulbright-Nehru, Fulbright-Kalam and other Fulbright fellowship opportunities</i>
Young Scientist Award Presentation	<p>Debabrata Mandal School of Nanoscience and Technology, India Institute of Technology Kharagpur, Kharagpur, West Bengal – 721 302</p> <p>Pallabi Das CSIR- Central Institute of Mining and Fuel Research, Barwa Road Campus, Dhanbad – 826 001. Jharkhand.</p> <p>Avinash R. Pai International and Inter University Centre for Nanoscience and Nanotechnology, Mahatma Gandhi University, Kottayam, Kerala - 686 560.</p>
SECTIONAL COMMITTEE ELECTION	

January 05, 2020

Venue	Cluster II-College of Agriculture, South Block : Hall 15
02:00 – 06:00 PM	Symposium: Sustainable Engineering Science & Technology for Rural Development
Keynote Lecture	<p>Swami Vedajnananda, Chemical Engineering Dept., Heritage Institute of Technology, Kolkata.</p> <p><i>Sustainable Engineering Approaches for Rejuvenation of Rural India</i></p> <p>Virendra Kumar Vijay, Head- Centre for Rural Development & Technology, IIT Delhi</p> <p><i>Biogas production, upgradation, power generation and utilization for Energy self-reliance in rural areas</i></p>
Invited Lecture	<p>Sudip Basack, Ex Professor Civil Engineering, Kaziranga University, Jorhat, Assam</p> <p><i>A Laboratory Study on the Influence of Saltwater Intrusion on Sand relevant to Coastal Environment</i></p> <p>Susobhan Sarkar, Centre of High Technology, Ex- Indian Oil Corporation Ltd., New Delhi.</p> <p><i>GoI's Ujjwala Yojana : A boon for Rural Families & Development</i></p>

	<p>Satish Daggupati, Refining R&D Center, Reliance Industries Ltd, Jamnagar, Gujarat.</p> <p><i>Catalytic Gasification of Biomass and Agri Waste & Conversion of Plastic to Oil</i></p>
<p>Symposium: Sustainable Engineering Science & Technology for Rural Development</p>	
Keynote Lecture	<p>G. Narahari Datta, ISRO Telemetry Tracking Command Network (ISTRAC), Bangalore.</p> <p><i>Eye in the Sky for sustainable development in India</i></p>
	<p>Rama Rao Marri, FCC & Olefins Sector, McDermott International, Houston, Texas, USA</p> <p><i>Developing & commercializing new process technologies in world market : Challenges & Opportunities</i></p>
Invited Lecture	<p>Ramesh Bhujade, Reliance Industries Limited, Navi Mumbai</p> <p><i>RCAT-HTL: Sustainable Technology for Biomass Conversion to Liquid Fuel</i></p>
	<p>Virendra Kumar Vijay, Centre for Rural Development & Technology, IIT Delhi</p> <p><i>Unnat Bharat Abhiyan program of MHRD GoI for catalysing S&T interventions and development of villages through Higher Educational Institutes of India.</i></p>
Oral Presentation	<p>Subhranil Das, Birla Institute of Technology, Mesra, Ranchi</p> <p><i>Development of Artificial Intelligence Algorithm in Vision based obstacle avoidance for AGV Vehicles</i></p>
<p>Concurrent Poster Session – I</p>	

January 05, 2020

Venue	Cluster II-College of Agriculture, South Block : Hall 16
02:00 -06:00 PM	Symposium: Innovative Engineering Solutions in Energy, Water & Rural Infrastructure
Keynote Lecture	<p>Smita S Mule, AKRUTI Technology Section, Bhabha Atomic Research Centre (BARC), Mumbai</p> <p><i>Application of Nuclear Spin off for Promotion of Entrepreneurship and Self-reliance for Rural Area through AKRUTI Program</i></p>

	Abhijit Dasgupta, Dastur & Co. Ltd , Kolkata <i>Sustainable Technologies for development of Rural India</i>
Invited Lecture	R. D.Singh, Indian Institute of Sugarcane Research, Lucknow. <i>Development of a solar drier for Jaggery drying</i>
	Santanu Mukherjee, Earth Science Dept, IIT Gandhinagar, Gujarat <i>Sustainable bio-based engineering Solution for Ground water protection</i>
Oral Presentation	D. K. Sharma, Vidya College of Engineering, Meerut, U.P. <i>Solar Energy based Sustainable Living in Residential Buildings: An Approach towards Zero Energy Buildings (ZEBs)</i>
Symposium: Innovative Engineering Solutions in Energy, Water & Rural Infrastructure	
Keynote Lecture	E. Bhaskaran, Industries and Commerce(Engineering), Government of Tamil Nadu. <i>The Technical Efficiency of Handloom Clusters in India</i>
	Debapriya Dutta, State S&T Programme (SSTP), Division of TARA, DST, Govt of India, New Delhi. <i>Location Specific Technologies for Agriculture and Rural Development - in response to aspirations of New India</i>
Invited Lecture	A.G.Matani, Mechanical Engineering Dept, Govt College of Engineering, Amravati, Maharashtra <i>Optimizing currency notes waste utilization : Potentialities and prospects in Indian economy</i>
	Indrajit Shown, Amrita Centre for Nano-sciences and Molecular Medicine, Kochi, Kerala <i>Artificial Photosynthesis: Metal chalcogenide nanomaterials as a promising photo-catalyst for CO₂ reduction into solar fuels</i>
Oral Presentation	Vandit Vijay, Centre for Rural Development & Technology, IIT Delhi <i>Energy self-sufficiency in villages using locally available biomass resources – Gram Urja Swaraj</i>
BEST POSTER AWARD PRESENTATION Concurrent Poster Session – I	

January 06, 2020

02:00 – 06:00 PM	
Venue	Cluster II- College of Agriculture, South Block : Hall 15
Symposium: Sustainable Engineering Science & Technology for Rural Development	
Keynote Lecture	S. C. Sarkar, Centre for Rural & Cryogenic Technology (CRCT), Jadavpur University, Kolkata <i>Cryogenic & allied research activities for Rural Sector & replacement of CFCs- An overview</i>
	Santanu Dasgupta, Reliance Corporate R&D Centre, Navi Mumbai. <i>Advancing technologies in R&D pipeline from Fuel, Food to Biomaterials</i>
Invited Lecture	Vinod Kumar, U R Rao Satellite Centre, Bangalore, Karnataka <i>Fault Prediction of Spacecraft Actuators using Auto Encoder Deep Neural Network Techniques</i>
	Subarna Bhattacharya, School of Environmental Studies, Jadavpur University, Kolkata. <i>Fungal bio-deterioration of Concrete and its prevention using nanoparticle coating</i>
Oral Presentation	Malaya K Biswal, Dept of Physics, Pondicherry University, Puducherry <i>Mars Missions Failure Report Assortment: Review and Conspectus</i>
Symposium: Sustainable Engineering Science & Technology for Rural Development	
Keynote Lecture	V.P.Gosavi, Ex VC VOU, Arunachal Pradesh, Army Institute of Technology, Pune University, Pune. <i>Sustainable Rural Development of Engineering Science & Technology Education – Challenges, Remedies-Ensuring Quality</i>
	P. Balamurugan, Centre for Rural Development, Annamalai University, Tamilnadu <i>A Comparative Study on Rural Tanks and their Need for Modernization in Tamilnadu and Karnataka States in India</i>
Invited Lecture	Sudip K Das, Head, Chemical Engineering Dept, University of Calcutta <i>Adsorptive removal of Cu(II) and Arsenic from wastewater using natural bio-adsorbents in continuous column & design scale-up</i>

	<p>H.R. Vishwakarma, School of Information Technology & Engineering, Vellore Institute of Technology, Vellore-632014</p> <p><i>Systems Engineering Education & Research : Challenges & Opportunities</i></p>
Oral Presentation	<p>D. Dewan, Damodar Valley Corporation, Kolkata</p> <p><i>Renewable Power Integration and Its Effect on Coal Fired Thermal Power Plant</i></p>
	<p>Aniket Patil, Electrical Engineering Dept, GuruGobind Singh Polytechnic, Nashik, Maharashtra.</p> <p><i>Fault Detection & Theft Analyzing System in Street Light Network</i></p>
Concurrent Poster Session – II	

January 06, 2020

02:00 - 06:00 PM

Venue

Cluster II- College of Agriculture, South Block : Hall 16

**Symposium:
Innovative Engineering Solutions in Energy, Water & Rural Infrastructure**

**Keynote
Lecture**

P.M.Natarajan, Le Verne City, California, Ex Centre for Climate Change, Periyar Maniammai University, Tamilnadu

Biofuels Impact on the Water and Food Securities

Pankaj Kumar Roy, Faculty of Interdisciplinary Studies Law and Management, School of Environmental Studies, Jadavpur University, Kolkata

Community Based Waste Water Treatment System in Rural Area

**Invited
Lecture**

H.Mahabaleshwara, Dept of Civil Engg, Ballari Institute of Technology & Management (BITM), Ballari, Karnataka

Inter Basin & Intra Basin Water Transfer –Unique solution for dual problems (Floods and Drought) in India

**Oral
Presentation**

A.O. Beena, Dept of Electronics and Communication Engineering, Saintgits College of Engineering, Pathamuttam, Kerala

Low Cost Smart Braille Printer: An aid to Visually Impaired

Poumi Ghosh, Department of Chemical Engineering, Heritage Institute of Technology, Kolkata

Studies on Innovative Wastewater Treatment and Reuse for Villages using Reed Bed and Root Zone Treatment

Yashodeo Mishra, Department of Chemistry, Birla Institute of Technology, Mesra, Ranchi 835215, Jharkhand

In situ growth of CeO₂ on Si-NWs and Its Application as Supercapacitor Anode

Symposium: Innovative Engineering Solutions in Energy, Water & Rural Infrastructure

**Keynote
lecture**

P. K. Raychaudhuri, Ex-Head, PCRA, Eastern Region, Kolkata

Energy Efficiency - Challenges in Agricultural Sector

Invited lecture

G.S. Mukherjee, Defence Research & Development Organization, Delhi

Innovative Polymer composite materials for Sustainable Application

Oral Presentation	Pooja Kumari, Dept of Physics, R N College, Pandual LNMU, Darbhanga, Bihar <i>Suppression of surface waves and radiation pattern improvement using SHS technology</i>
	Sumit Kumar Jha, Department of Electrical & Electronics Engineering, Birla Institute of Technology, Mesra, Ranchi, Jharkhand <i>Enabling the Technologies for Creating Power Reserve for Stand-Alone Microgrid</i>
	Suman Chatterjee, Dept of Physics, University of North Bengal, Siliguri, W.B. <i>Band Structure of different types of ZnO nanostructure and their dependence on efficiencies of fabricated dye sensitized solar cells</i>
Concurrent Poster Session – II	

January 07, 2020

02:00 – 03:00 PM	
Venue	Cluster II – College of Agriculture, South Block : Hall 15
Symposium Lecture & Oral Presentation	
Invited Lecture	Sudip K Ganguly, CSIR-Indian Institute of Petroleum, Dehradun. <i>The Science behind carryover issues in the LPG Treating units: Technological Challenges & Solutions</i>
Oral Presentation	Sunil M. More, Guru Gobind Singh Polytechnic, Nashik, Maharashtra <i>Overall Program POs attainment by using CO-PO Mapping with various Assessment Method</i>
	Joydeep Das, Dept of Chemical Engineering, Heritage Institute of Technology, Kolkata <i>Green Audit in Indian Village Clusters -- A must for Today</i>
	Yash Raut, Dept. of Electrical Engg, Guru Gobind Singh Polytechnic, Nashik, Maharashtra <i>Control Panel Monitoring System</i>
GENERAL DISCUSSION AND RECOMMENDATIONS	