International Conference on

Emerging Trends in Biotechnology for Waste Conversion (ETBWC-2017) XIV Convention of the Biotech Research Society, India

October 8-10, 2017

CSIR-National Environmental Engineering Research Institute, Nagpur, India

PROGRAM October 8, 2017 [SUNDAY] 14:00-19:00 Registration 14:00-16:00 **BRSI Board and Management Council meeting (by invitation only)** 16:05-16:50 **BRSI General Body meeting (for BRSI members only)** 17:00-18:30 **Opening session and BRSI award function** 18.35-19.15 Keynote lecture- Prof Tej P Singh, AIIMS, New Delhi- Structural basis of antibacterial action of innate immune proteins and their applications as PROTEIN-ANTIBIOTICS 19.15-20.15 Cultural program 20:15-21:15 Dinner October 9, 2017 [MONDAY] 08:00-17:00 Registration 09:00-10:00 Presentations by awards winners: Chair- Ashok Pandey, CSIR-Indian Institute for Toxicology Research, Lucknow 10:00-11:20 Plenary session I: Chairs-DinbandhuSahoo, Institute of Bioresources and Sustainable Development, Imphal&SudhirK Sopory, ICGEB, New Delhi 10:00-10:20 Plenary 1- AlokDhawan, CSIR-Indian Institute of Toxicology Research, Lucknow- Biotechnological solutions for waste management: Challenges and opportunities 10:20-10:40 Plenary 2- Duu-Jong Lee, National Taiwan University, Taipei, Taiwan-Sludge treatment: Current research trends 10:40-11:00 Plenary 3-Jo-Shu Chang, National Cheng Kung University, Tainan, Taiwan-Microalgae-based wastewater treatment for the circular economy 11:00-11:20 Plenary 4- Kanchugarakoppal S. Rangappa – University of Mysore, Mysore-Exploring novel inhibitors targeting heparanase, JAK-STAT pathway, and TNF in hepatocellular and mammary carcinoma 11:20-11:50 Refreshments and Poster Session - I **Session IB Session IC** 11:50-13:30 Session IA

	Topic- Waste to wealth - Resource recovery and recycling	Topic- Industrial bioprocesses and products development	Topic- Biomass to fuels and chemicals
	Chairs:Samir Kumar Khanal, University of Hawaii, Honolulu, USA & Zengqiang Zhang, Northwest A&F University, Yangling, China	Chairs: DattaMadamwar, Sardar Patel University, Vallabh Vidyanagar&Mark R Wilkins, University of Nebraska—Lincoln, USA	Chairs: Claude-Gilles Dussap, Universite Clermont Auvergne, Clermont Ferrand, France& Siddha N Upadhyay, Banaras Hindu University, Varanasi
11:50-12:10	José A. Teixeira, University of Minho, Braga, Portugal-Ohmic heating as innovative technology for a more efficient wastes recovery	Christian Larroche, Universite Clermont Auvergne, Clermont Ferrand, France- Immersed membrane bioreactors: present status and new tools for their design	Rajeev K Sukumaran, CSIR-National Institute for Interdisciplinary Science and Technology, Trivandrum -Enzymes for biofuels: β-Glucosidases as blend-in enzymes for biomass hydrolyzing cellulases cocktails
12:10-12:30	Ram S. Singh, Banaras Hindu University, Varanasi -Major challenges and current research efforts in the bioremediation of liquid and gaseous waste	K MadhavanNampoothiri, CSIR- National Institute for Interdisciplinary Science and Technology, Trivandrum-Microbial degradation of high impact polystyrene (HIPS) e-plastics	MukundAdsul, DBT Bioenergy Centre, IOCL, Faridabad - Designing cellulolytic enzyme cocktail for efficient and economic conversion of lignocellulosic biomass to biofuels
12:30-12:50	Deepak Pant, Central University of Himachal Pradesh, Dharamshala -Bioprocess of using weed biomass for surfactant removal from wastewater	Vivek K. Morya, DST-Centre for Policy Research, BBA Central University, Lucknow- Optimization and evaluation of the highly productive protein refolding process, using ionic liquid	Pramod W. Ramteke, Sam Higginbottom Institute of Agriculture, Technology and Sciences, Allahabad -Nanomaterials for biofuel production using lignocellulosic waste
12:50-13:10	Rama Kant Dubey, Banaras Hindu University, Varanasi- Agro-waste management practices for improving soil functions, crop productivity and agricultural sustainability under diverse agroecosystems	LathaRangan, Indian Institute of Technology, Guwahati-Mining of natural compounds from seeds of Pongamiapinnata, a versatile oleaginous legume tree	Bijender Kumar Bajaj, University of Jammu, Jammu-Ionic liquids for valorization of lignocellulosic wastes for biofuel-ethanol production under consolidated bioprocessing
13:10-13:30	Zhi Li, National University of Singapore, Singapore -Bioproduction of biodiesel from waste grease	Sunil Kumar Khare, Indian Institute of Technology, New Delhi-Interaction of nanoparticles with microbial cells: evidences of nanotoxicity	Xiang Lu, Nanjing Tech University, Nanjing, China – The model of fiber dispersion for biomass fiber field polyethylene composites
13:30-14.30	Lunch		
14:00-15:30	Poster session-I (cont)		
15:30-16:50	Session IIA	Session IIB	Session IIC
	Topic – Bioenergy and Biorefineries	Topic- Industrial bioprocesses and products	Topic- Solid waste management

		development	
	Chairs: ThalladaBhaskar, CSIR- Indian Institute of Petroleum, Dehradun&Duu-Jong Lee, National Taiwan University, Taipei, Taiwan	Chairs: Vikash K Dubey, Indian Institute of Technology, Guwahati& Jo-Shu Chang, National Cheng Kung University, Tainan, Taiwan	Chairs: Vinod K Garg, Central University of Punjab, Bathinda & José A. Teixeira, University of Minho, Braga, Portugal
15:30-15:50	RajeshwarDayalTyagi, University of Quebec, INRS-ETE, Quebec, Canada-Sustainable biodiesel production- An approach	InduShekhar Thakur, Jawaharlal Nehru University, New Delhi-Molecular characterization of Serratia sp. ISTD04 for sequestration of carbon dioxide and production of exopolysaccharide	Zengqiang Zhang, Northwest A&F University Yangling, China -Clean composting – Opportunities, Approaches and Challenges
15:50-16:10	Ganti S. Murthy, Oregon State University, USA-A systems perspective on lignocellulosic biorefineries using high yielding tropical grasses	Sudesh Kumar Yadav, Center of Innovative and Applied Bioprocessing, Mohali-Biosynthetic approaches in transformation of biomass into value-added products	ZainulAkmarZakaria, UniversitiTeknologi Malaysia, Kuala Lumpur-Sustainable techniques for pineapple waste management in Johor, Malaysia
16:10-16:30	Claude-Gilles Dussap, Universite Clermont Auvergne, France-Influence of reduced gravity for higher plant growth for space life support systems	Mark R Wilkins, University of Nebraska– Lincoln, USA-Production of aryl alcohol oxidase by an Aspergillus nidulans mutant in a trickle bed reactor	Jishuang Chen, Nanjing Tech University, Nanjing, China-Industrial utilization of biomass for new materials and the development of straw plastic composites (SPC)
16:30-16:50	Ajay Kumar, Oklahoma State University, USA - Small-scale co-gasification of municipal solid waste (MSW) and biomass for power generation	Parmjit S Panesar, SL Institute of Technology and Engineering, Longowal, Production of L (+) lactic acid from waste potato starch using fungal culture	Mukesh Kumar Awasthi, Northwest A&F University, Yangling, China-Co-composting of sewage sludge and wheat straw: Microbial diversity and potential mitigation of ammonia and greenhouse gases emission
16:50-17:20	Refreshments		
17:20-19:00	Session IIIA	Session IIIB	Session IIIC
	Topic – Environmental Technologies: value-chain from wastes	Topic- Industrial bioprocesses and products development	Topic- Organization for Women in Science in the Developing World
	Chairs:Sunil K Khare, Indian Institute of Technology, New Delhi &Christian Larroche, Universite Clermont Auvergne, France	Chairs: Reeta Rani Singhania, DBT Bioenergy Centre, IOCL, Faridabad&Jonathan W. C. Wong, Hong Kong Baptist University, Hong Kong	Chairs: Kaiser Jameel, BhagwanMahavir Medical Research Center, Hyderabad&AkkaJyothy, Osmania University, Hyderabad
17:20-17:40	A. Gangagni Rao, CSIR-Indian Institute of Chemical Technology, Hyderabad -Sustainable waste management Biotechnologies: A decentralized	Nishi Morya, Adhita Biosciences Private ltd Lucknow -Development of cosmeceutical based cosmetic products from Indian herbs	Vijayakhader, Acharya NG Ranga Agricultural University, Hyderabad- Economic empowerment of women through

	and remunerative approach for waste treatment		application of Science & Technology for food, nutrition, health & livelihood security
17:40-18:00	S Venkata Mohan, CSIR-Indian Institute of Chemical Technology, Hyderabad-Acidogenic waste-biohydrogen platform: Pilot-scale experience	Wan Azlina Ahmad, University Technology, Malaysia -Optimization of growth condition and chromium reduction by thermophilic strain Geobacilluscaldoxylosilyticus UTM 6	RamanibaiRavichandran, University of Madras, Chennai-Women self-help groups and their role in eco restoration and conservation of Pulicat Lagoon
18:00-18:20	Rebecca Thombre, Modern College, Pune- Microbial fuel cell (MFC) technology in altered gravity: Implications in turning waste into electricity on space missions	AkshayaGupte, Natubhai V Patel College of Pure and Applied Sciences, Vallabh Vidyanagar - Laccases: Advancing Sustainability in Chemical Industry	Sudha Chauhan, ICMR, New Delhi- Waste maanagement in India: Role of biotechnology and women
18:20-18:40	M Sudhakara Reddy, Thaper University, Patiala, Glutathione synthesizing genes in ectomycorrhizal fungi and their role in metal detoxification	C. Ganesh Kumar, CSIR-Indian Institute of Chemical Technology, Hyderabad-Microbial- derived silver nanoparticles and their application as drug delivery agents	Arti S. Shanware, Nagpur University, Nagpur- Endeavoring agri-waste management for sustained agriculture ecosystem
18:40-19:00	SudhirPratap Singh, Center of Innovative and Applied Bioprocessing, Mohali- An integrated bioprocess for the production of functional biomolecules utilising dairy and sugarcane industry by-products	Kazushige Yokota, Shimane University, Shimane, Japan-Analysis of polyphenolic antioxidants from regional bioresources and their health benefits for the uses as food additives and nutraceuticals	SushmaTamta, Kumaun University, Nainital- Desmodesmus sp. may be a potential source of biodiesel production
19:00-20:00	Cultural program		
20:00-21:00	Dinner		
October 10, 2	2017 [TUESDAY]		
09:00-10:00	Plenary session II: Chairs- Tej P Singh, All India Institute of Medical Sciences, New Delhi &RajeshwarDayalTyagi, University of Quebec, INRS- ETE, Quebec, Canada		
09:00-09:20	Plenary 5- Jonathan W. C. Wong, Hong Kong Baptist University, Hong Kong- Biogenic Flocculant from Acidithiobacillussferoxidans for sludge dewatering and sewage treatment		
09:20-09:40	Plenary 6- CN Ramchand, Saksin Life Sciences Pvt. Ltd. Chennai, San Francisco and MagGenome Technologies Pvt. Ltd., Cochin- Waste disposal in pharmaceutical and biopharmaceuticals industries		
	Plenary 7 - Dinakar M. Salunke, International Centre for Genetic Engineering & Biotechnology, New Delhi-Structural proteomics of plant seeds		
09:40-10:00	1		
09:40-10:00 10:00-10:30	Refreshments and Poster session – II		

	Topic – Industrial effluent treatment	Topic – Industrial bioprocesses and products development	Topic- Environmental bioengineering and ecology
	Chairs: Shailesh R. Dave, Gujarat University, Ahmedabad&BaskarGurunathan, St.Joseph's College of EngineeringChennai	Chairs: P Binod, CSIR-National Institute for Interdisciplinary Science and Technology, Trivandrum & TulsiSatyanarayana, Netaji Subhas Institute of Technology, New Delhi	Chairs: M Sudhakara Reddy, Thapar Institute of Engineering & Technology University, Patiala &R Praveen Kumar, Arunai Engineering College, Thiruvannamalai
10:30-10:50	Raj Boopathy, Nicholls University, Thibodaux, USA-Presence of sulfonamide and carbapenem resistance genes in a wastewater treatment plant	Vijayanand S. Moholkar, Indian Institute of Technology, Guwahati -Physical insight into ultrasound-assisted biodesulfurization using free and immobilized cells of RhodococcusrhodochrousMTCC 3552	Cheng-Di Dong, National Kaohsiung Marine University, Kaohsiung, Taiwan-Biochar from woody biomass supported magnetite nanoparticles for remediation of PAHs-contaminated marine sediments
10:50-11:10	Yonghong Wu, Institute of Soil Science Chinese Academy of Sciences, Nanjing, China-Synergistic role of titanium dioxide addition, extracellular polymeric substance and denitrifiers on enhanced nitrate removal from wastewater	VikasPruthi, Indian Institute of Technology, Roorkee-Boosting neutral lipid accumulation in oleaginous microbes utilizing waste and low cost medium as a feedstock for biodiesel production	Sunita J. Varjani, Gujarat Pollution Control Board, Gandhinagar - Biodegradation of petroleum hydrocarbon pollutants
11:10-11:30	P. Mullai, Annamalai University, Annamalai Nagar- Substrate removal kinetics of pharmaceutical wastewater using anaerobic hybrid multiphase reactor	Sangeeta Negi, Motilal Nehru National Institute of Technology, Allahabad-Enhanced production of hydroxylase through media engineering from grease waste	NatesanManickam, CSIR-Indian Institute of Toxicology Research, Lucknow- Feasible biotechnological solutions for bioremediation of persistent chemical wastes
11:30-11:50	A Murugan, Periyar University, Salem- Ellagic acid production from ellagi tannin of mango pulp processing industrial waste	Carol SK Lin, City University, Hong Kong- Transforming food and beverage wastes to high value-added products	Srikanth Sandipam, Indian Oil Corporation Ltd, Faridabad- Stack mode MFC operation for refinery wastewater treatment
12:00-13:00	Lunch		
13:00-14:15	Poster session – II (cont)		
14:15-15:45	Session VA	Session VB	Session VC
	Topic – Anaerobic digestion	Topic – Industrial bioprocesses and products development	Topic- Plant Physiology and Biotechnology
	Chairs: Shekhar Mande, National Centre for Cell Science, Pune&Hemant J. Purohit, CSIR-National Environmental Engineering Research Institute, Nagpur	Chairs: V Arul, Pondicherry University, Pondicherry &Ram Sarup Singh, Punjabi University, Patiala	Chairs: Cheng-Di Dong, National Kaohsiung Marine University, Kaohsiung, Taiwan&RS Jayasomu, CSIR-NISCAIR, New Delhi
14:15-14:35	Hee-Deung Park, Architectural Engineering	Kisan M. Kodam, Savitribai Phule Pune	Sumit Gandhi, CSIR-Indian Institute of

	Korea University, Seoul, South Korea-Direct interspecies electron transfer via conductive materials makes a step forward in anaerobic digestion	University, Pune- Assessment of hazardous impact of ionic liquids on diverse biological systems and their biodegradation	Integrative Medicine, Jammu- Analysis of plant cytochrome P450s: key players in biosynthesis of secondary metabolites and degradation of xenobiotics
14:35-14:55	Samir Kumar Khanal, University of Hawaii, USA-Anaerobic digestion process control via oxidation-reduction potential (ORP)-based micro-aeration	Manoj K. Dhar, University of Jammu, Jammu- Genetic modification in xylan biosynthesis for efficient production of biofuels	SnehalLokhandwala Shroff S R Rotary Institute of Chemical Technology, Bharuch- Heavy metal Tolerance: A phytostabilization approach by Funneliformisgeosporum MBAL to alleviate heavy metal stress in soil
14:55-15:15	Lena Breitenmoser, FHNW, Switzerland-Methane potential from Indian urban biowaste: Insight from six communities in Maharashtra state	V Vivekanand, Centre for Energy and Environment, Malaviya National Institute of Technology, Jaipur -Improved bioconversion of straw to biogas: delignification effects of fungal pretreatment	K. K. Krishnani, ICAR-National Institute of Abiotic Stress Management, Pune- Agrowaste derived products for edaphic stresses synergizing with integrated farming
15:20-17:00	Plenary session III: Industry-Young Researchers Interaction Session: Education, Entrepreneurship and Livelihood vis-à-vis Business of Biotechnology and Sustainability Chair & Moderator- Dr. Raghvendra Gaikaiwari, CMD, HTBS, Pune Presentation by DrOnkar Tiwari, Department of Biotechnology (Govt of India), New Delhi Panelist-DrVivek Agrawal, CEO, CDC India, Jaipur DrCN Ramchand, CMD, Saksin Life Sciences Pvt. Ltd. Chennai, San Francisco and MagGenome Technologies Pvt. Ltd., Cochin Er Sunil Kumar Sharma, Feedback Infra		
17:00-17:45	Closing session (Poster awards, Announcement for venue of XV BRSI Convention, Thanks Giving)		
17:45-18:15	Refreshments		