

The Thirty-Second International Conference on Solid Waste Technology and Management

Philadelphia, PA, USA

March 19-22, 2017

AGENDA

(updated January 11, 2017)

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The Journal of Solid Waste Technology and Management



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- Ofira Ayalon, University of Haifa and Samuel Neaman Institute, Technion, Israel
- Giuseppe Bonifazi, Sapienza – Università di Roma, Italy
- Maria Cristina Borba Braga, Parana Federal University, Brazil
- Shoou-Yuh Chang, North Carolina A&T State University, USA
- Toru Furuichi, Hokkaido University, Japan
- Professor Sadhan Kumar Ghosh, President, International Society of Waste Management, Air and Water, & Mechanical Engineering Dept., Jadavpur University, India
- Dr.(Mrs.) Kasturi Gadgil, I.I.T., Delhi (retired), India
- Ruby Mejía de Gutiérrez, Universidad del Valle (Cali), Colombia
- Mervat El-Hoz, University of Balamand, Lebanon
- Maria Liubarskaia, Saint-Petersburg State University of Economics, Baltic Academy for Tourism and Entrepreneurship, Russia
- Dr. Mary Purcell, Cork Institute of Technology, Ireland
- Ilan Nissim, Ministry of National Infrastructures, Energy and Water Resources, Israel
- Sara Ojeda-Benitez, Institute of Engineering, Autonomous University of Baja California, México
- Dr. Chukwu Onu, Southern University and A & M College, USA
- Professor Paul Phillips, University of Northampton, UK
- Dr. Eva Pongrácz, University of Oulu, Finland
- Prof. Krishna Reddy, University of Illinois at Chicago, USA
- Dr. Masafumi Tateda, Toyama Prefectural University, Japan
- Dr. Jerry E. Uhuo, National Assembly Abuja, Nigeria
- Prof. Dongmin Wang, Director of Solid Waste Subcommittee of The Chinese Ceramic Society, P.R. China
- Anita Závodská, Barry University, USA

CONFERENCE SUMMARY

SUNDAY, MARCH 19, 2017

- Pre-Conference Tour of Philadelphia
- Opening Reception

MONDAY, MARCH 20, 2017

Opening Plenary

Oral Presentations

- 1A Landfill 1
- 1B Agricultural Wastes 1
- 1C Policy and Public Involvement 1
- 1D Use of Wastes in Construction 1

- 2A Biological Treatment 1
- 2B Contaminated Sites
- 2C Waste Management Planning 1
- 2D Special Wastes

- 3A Chemical Treatment Advances
- 3B Electrical and Electronic Wastes
- 3C Landfill 2
- 3D Case Studies

- 4A Agricultural Wastes 2
- 4B Construction and Demolition Wastes
- 4C Waste Management Planning 2
- 4D Special Workshop: Elevated Temperature in Landfills: Occurrences, Impacts, and Resolution

Poster Session 1

TUESDAY, MARCH 21, 2017

Oral Presentations

- 5A Policy and Public Involvement 2
- 5B Biological Treatment 2
- 5C Facility Siting
- 5D Environmental and Health Impacts

- 6A Waste Business Analyses
- 6B Waste Management in Developing Areas
- 6C Use of Wastes in Construction 2

Poster Session 2

- 7A Landfill 3
- 7B Recycled Materials

- 8A Special Workshop: Evaluating the Dynamic Characteristics of Municipal Solid Waste for Geotechnical Purposes

Closing Reception

WEDNESDAY, MARCH 22, 2017

Technical Field Trips

DETAILED AGENDA

SUNDAY, MARCH 19

12:00 p.m. - 6:00 p.m.

Conference check-in and registration

1:00 p.m. - 5:00 p.m.

Guided Tour of Philadelphia: The tour will include the Liberty Bell, Independence Hall and the Betsy Ross House along with a bus tour of the city.
(additional fee)

5:00 p.m. - 6:00 p.m.

Welcome Reception

MONDAY, MARCH 20

8:00 a.m. - 5:30 p.m.

Conference check-in and registration

8:00 a.m. - 9:00 a.m.

Coffee

9:00 a.m. - 9:40 a.m.

Opening Plenary

Keynote Address: Don't Waste a Bite- On the Link between Hunger and Waste Management, Ofira *Ayalon*, The University of Haifa and Samuel Neaman Institute, Technion, **Israel**

Plenary Presentations:

Circular Economy and 3Rs - Reduce, Reuse, Recycle for Efficient Use of Resources, *Sadhan Kumar Ghosh*, ISWMAW, Jadavpur University, **India**

Circular Economy & Sustainable Development – in India, *Lakshmi Raghupathy*, TERI University, **India**

9:45 a.m. - 11:10 a.m.

Sessions 1

SESSION 1A

Landfill 1

Design Guidance for Reinforcement Layers under Piggyback Landfill Liner Systems, *Gregory Mills*, Smith Gardner, Inc., **USA**

Emerging Landfill Trends in Exposed Geomembrane Cover Systems and the New Wind Defender Ballast System, *Elliot Pugh*, Wind Defender, LLC, *James Tuttle*, Chesapeake Containment Systems, Inc., **USA**

The Future of Pre-Sub Title D Municipal Landfill Cleanups, *Michael Grappé*, Arkansas Department of Environmental Quality, **USA**

Mitigation of Greenhouse Gas Emissions from Landfills by Mechanical Biological Treatment - A Brazilian Case Study, *Francisco Contreras*, University of Brasilia, *Fernanda Lemos da Silva*, University of Brasilia, **Brazil**

SESSION 1B
Agricultural Wastes 1

Giant Reed as a Potential Wild Reproductive Crop for Biogas Production, *Zainab Ziad Ismail*, Baghdad University, *Nazik Noori*, Baghdad University, **Iraq**

Biogas as a Strategic Resource on Renewable Energies in South Brazil, *Marisa Soares Borges*, Federal University of Parana, *Marcelo Alves de Sousa*, Parque Tecnológico Itaipu, *Janaina Camile Pasqual*, Parque Tecnológico Itaipu, *Iara B.R. Rosa*, *Driely Rosa*, **Brazil**

Anaerobic Digestion: Efficient Organic Waste Reutilization for Integrated Waste Management and Carbon Reduction, *Serpil Guran*, Rutgers EcoComplex, *David Specca*, Rutgers EcoComplex, *Margaret Brennan-Tonetta*, Rutgers University, **USA**

Adding Waste Scrap Iron to Enhance Anaerobic Digestion of Biomass and Production of Methane, *Yaobin Zhang*, Dalian University of Technology, **China**

SESSION 1C
Policy and Public Involvement 1

Assessing Innovative Approaches in Urban Solid Waste Management, *Arti Jaiswal*, SPA, Bhopal, *Chandan*, SPA, Bhopal, *Sanjeev Rawat*, Architectural and Planning Consultancy Firm, **India**

The Role of Universities in Increasing Waste Awareness among Citizens, *Anita Zavodska*, Barry University, *Anne Morrissey*, *Yasuhiro Matsui*, **USA**

Problems and Prospects of Solid Waste Management in South Africa: A Case of Khayelitsha Community, *Aifani Confidence Tahulela*, Cape Peninsula University of Technology, *Harry Ballard*, Cape Peninsula University of Technology, **South Africa**

Status of Solid Waste & Society in India: Challenges for Future, *Jagbir Singh*, University of Delhi, **India**

Public Behavior, Awareness, and Perception Concerning Household Solid Waste Recycling in Urban Area of China: A Case Study, *Xiao Liu*, Shandong University, *Peiming Zheng*, Shandong University, *Kun Zhang*, Shandong University, *Lidong Cao*, *Jianli Wen*, *Ning Wang*, *Fengchuan Wang*, *Shuping Zhang*, *Renqing Wang*, *Hui Wang*, **China**

Sustainable Solid Waste Management - Policy Comments, *Amalendu Bagchi*, Wisconsin Department of Natural Resources, **USA**

SESSION 1D
Use of Wastes in Construction 1

Recycling of Polyethylene Terephthalate (PET) Waste Bottles in Sustainable Pavement Materials, *Pranshoo Solanki*, Illinois State University, *Md. Kaiser Ahmed*, Illinois State University, **USA**

Effect of Raw Earth as Fine Aggregate in Mortar Properties, *Perumal Priyadharshini*, Indian Institute of Technology, *K. Ramamurthy*, Indian Institute of Technology, *R. G. Robinson*, Indian Institute of Technology, **India**

The Effect of Waste Additives on the Mechanical Strength of Fired Clay Bricks, *Mehdi Serati*, The University of Queensland, *David Williams*, The University of Queensland, *Maria Durante Ingunza*, The University of Queensland, *Sebastian Quintero Olaya*, **Australia**

Experimental Research on a New Solid Waste Cementitious Stabilizer KC of Stabilizing Chloride Soil, *Cheng Yin*, Road Construction and Materials Research Center, China Academy of Transportation Sciences, *Wei Dao-xin*, Road Construction and Materials Research Center, China Academy of Transportation Sciences, *Zhu Bao-lin*, Road Construction and Materials Research Center, China Academy of Transportation Sciences, *Chai Zhi*, *Hui Jia*, *Jiang Rui-nan*, *Zhou Hong-liang*, *Li Hua-ming*, **China**

Innovative Uses of Dredged Material for Sustainable Architecture, *Rui Liu*, Kent State University, **USA**

11:10 a.m. – 11:30 a.m.

Break

11:30 a.m. – 12:50 p.m.

Sessions 2

SESSION 2A

Biological Treatment 1

A Comparative Review of Biogas Production from Microalgae Biomass and Microalgae Waste, *Laura Vargas*, Instituto de Energias Renovables-UNAM, *Emilio Arenas*, Instituto de Energias Renovables-UNAM, *Pathiyamattom Joseph Sebastian*, Instituto de Energias Renovables-UNAM, **Mexico**

Application and Validation of ED-XRF and SEM-EDX Techniques in the Study of Composting Process, *S. L. Belagali*, University of Mysore, *B. Manohara*, University of Mysore, **India**

Biogas Production from Lignocellulose-Rich Waste Fractions, *Ilona Sárvári Horváth*, University of Borås, **Sweden**

Kinetics of Pyrolysis of Mixed Municipal Solid Waste, *Vibhuti Chhabra*, Monash University; Indian Institute of Technology, Bombay, *Yogendra Shastri*, Indian Institute of Technology, Bombay, *Sankar Bhattacharya*, Monash University, **Australia**

Evaluation of Sampling Methods for Gas-Phase Siloxanes in Biogas, *Clara Eichler*, Virginia Tech, *Yaoming Wu*, Virginia Tech, *Steven Cox*, Virginia Tech, *Stephanie Klaus*, Gregory D. Boardman, **USA**

SESSION 2B

Contaminated Sites

Behavior of Zinc Chloride Contaminated Clay Soil Using Encapsulation Technique, *Isabel Perez*, Pontifical Catholic University of Rio de Janeiro, *Michèle Casagrande*, Pontifical Catholic University of Rio de Janeiro, *Maria Isabel Pais da Silva*, Pontifical Catholic University of Rio de Janeiro, **Brazil**

Waste-to-Energy Approach in Washing of Petroleum Contaminated Soil, *Bassim Abbassi*, University of Guelph, *Chris Kinsley*, University of Guelph, *Stephen Emslie*, University of Guelph, **Canada**

Coupled Estimation Method for Determination of Flow and Transport Parameters Using Transient Observation Data during Remediation of 1,4-Dioxane Groundwater Contamination, *Kazuei Ishii*, Hokkaido University, *Toru Furuichi*, Hokkaido University, *Atsushi Fujiyama*, Hokkaido University, *Masahiro Sato*, *Yumika Shishido*, **Japan**

Management of Contaminated Soil Generated from 16" HFO Pipeline Leakage at Jaber Al-Ahmad Residential Area, *Fatemah Al-Baroud*, Kuwait Oil Company, *Majed Al-Mutairi*, Kuwait Oil Company, *Krishna Vangala*, Kuwait Oil Company, *Ghadeer Al-Qattan*, **Kuwait**

SESSION 2C

Waste Management Planning 1

A Study of Household Waste Production in the Czech Republic as a Function of the Number of Household Members, *Libuše Benešová*, Charles University in Prague, *Jakub Šmíd*, Charles University in Prague, *Anita Zavadská*, Barry University, **Czech Republic**

Characterization of MSW Generated in Some Egyptian Cities, *Shakinaz El-Sheltawy*, Cairo University, *Salah El-Haggag*, American University in Cairo, *Mai Fouad*, Cairo University, *Eslam G. Al-Sakkari*, **Egypt**

A Retrospective of State Solid Waste Planning in the U.S.A., *Moe Chowdhury*, Jackson State University, *Ricardo Brown*, Jackson State University, *Wayne Goodwin*, Jackson State University, **USA**

Framework for a Decision Support System in Decentralised Municipal Solid Waste Management, *Malavika Gopinath*, IIT Bombay, *Prasad Modak*, IIT Bombay, **India**

Wow! Recycling Delivers GHG More Cheaply than Energy Programs – Really?, *Lisa Skumatz*, SERA Skumatz Economic Research Associates, Inc., **USA**

SESSION 2D

Special Wastes

Management of Weed Waste Generated from Dal Lake, Kashmir, *Humaira Qadri*, Sri Pratap College, *Sameer Farooq*, Sri Pratap College, *Shahid Ahmad Wani*, Sri Pratap College, *Abdul Roouf Bhat Khursheed Ahmad Parry*, **India**

Design Challenges for Modifications to a Low Level Radioactive Waste Incinerator, *William Norris*, OBG, *Michael Mannuzza*, OBG, **USA**

Preparing Graphene-Copper Composite Material from Anode Graphite of Spent Lithium-Ion Batteries, *Wenxuan Zhang*, Tongji University, *Zhanpeng Liu*, Tongji University, *Wenzhi He*, Tongji University, *Guangming Li*, *Haochen Zhu*, *Juwen Huang*, **China**

Leachate and Regression Analysis of Fly Ash-Lime-Gypsum Composite Mixed with Tire Granulates, *S.P. Guleria*, Jawahar Lal Nehru Govt. Engg.College, *Raman Parti*, Jawahar Lal Nehru Govt. Engg.College, *Neetika Narang*, SIRDA, Sundernagar, **India**

Heading Toward Sustainable Management of Sewage Sludge, *Saleh Al-Muzaini*, Kuwait Institute for Scientific Research, **Kuwait**

Sawdust Management and Disposal through Use in Aquaculture Wastewater Treatment, *Olayemi Olanlokun*, University of Ilorin, *Bolaji Sule*, University of Ilorin, **Nigeria**

Analysis of Bio-Chemicals Extractable from Untreated Wood Waste, *Francesco Di Maria*, Università di Perugia, *Enrico Segoloni*, Università di Perugia, **Italia**

12:50 p.m. - 1:45 p.m.

Awards Luncheon

Presentation of the Russell Ackoff Award, Roy F. Weston Award, Iraj Zandi Award and Student Paper Award

1:45 p.m. – 3:35 p.m.

Sessions 3

SESSION 3A

Chemical Treatment Advances

Activated Carbons from Brewers' Spent Grain and Their Modifications: Enhanced Removal of Chromium (VI) by Combination of Adsorption and Reduction, *Sara R. H. Vanderheyden*, Universiteit Hasselt, *Kenny Vanreppelen*, Universiteit Hasselt, *Jan Yperman*, Universiteit Hasselt, *Robert Carleer*, *Sonja Schreurs*, **Belgium**

Activated Carbons as Adsorbent for Problematic Metals in Flemish Surface Water, *Sara R. H. Vanderheyden*, Universiteit Hasselt, *Robert Carleer*, Universiteit Hasselt, *Jan Yperman*, Universiteit Hasselt, *Sonja Schreurs*, **Belgium**

Visible Light Active Mesoporous Ce Incorporated TiO₂ Photocatalyst for the Degradation of 4-Chlorophenol in Aqueous Solution, *Murugesan Velayutham*, B.S. Abdur Rahman University, *Palanisamy Bommusamy*, Bannariamman College, **India**

Adsorptive Removal of Reactive Yellow 84 by Effectual High Temperature Activated Carbon from *Borassus flabellifer* and Its Modified Magnetic Iron-Oxide Nano Adsorbent, *Karpagasundaram Muthukumaran*, Govt. College of Technology, Coimbatore under Directorate of Technical Education, Govt. of Tamilnadu, *S. Indhu*, Govt. College of Technology, Coimbatore under Directorate of Technical Education, Govt. of Tamilnadu, **India**

Assessing the Persistence of Trace Organic Compounds in Waste Coffee Grounds, *Rhianna Briars*, UCL, *Paul Hellier*, *Nicos Ladammatos*, *Arthur Kay*, *Ben Mills-Lamptey*, **UK**

Recovery of Lithium and Nickel from Lithium Nickel Oxide (LNO) in Spent Lithium Ion Battery, *Shun-Myung Shin*, Korea Institute of Geoscience and Mineral Resources, *Dong-Ju Shin*, Korea Institute of Geoscience and Mineral Resources, *Sung-Ho Joo*, Korea Institute of Geoscience and Mineral Resources, **South Korea**

SESSION 3B

Electrical and Electronic Wastes

E-Waste Recycling in India: A Case Study, *Biswajit Debnath*, Jadavpur University, *Sadhan Kumar Ghosh*, Jadavpur University, **India**

Electronic Waste Evaluation in Brazil and Biodegradation of Printed Circuit Boards, *Adilson Roberto Goncalves*, UNESP-IPBEN, *Priscila Benar*, IFSP-Hortolandia, *Stephany Fernandes Cavalcante*, IFSP-Hortolandia, **Brazil**

Cloud Based Model for WEEE Collection and Monitoring, *Biswajit Debnath*, Jadavpur University, *Ipsita Saha*, Guru Nanak Institute of Technology, *Sadhan Ghosh*, Jadavpur University, **India**

E-Waste Generation, Management and Policy Addaptation Requirements to Secure Public Health in Bangladesh, *Mohammad Habibur Rahman*, BUET, *Alauddin Ahmed*, WHO, **Bangladesh**

E-Waste Collection Channels for Effective Management, *Lakshmi Raghupathy*, TERI University, *Dharna Tiwari*, Amity University, **India**

Comparison between WEEE-Management in Switzerland and in Egypt, *Shakinaz El-Sheltawy*, Cairo University, *Dina Magdy*, CMRDI, **Egypt**

SESSION 3C

Landfill 2

A Long-Term Study on Methane Degradation Layer Extracted from the Landfill, *Kaur-Mikk Pehme*, Estonian University of Life Sciences, *Merilin Heinsoo*, Estonian University of Life Sciences, *Kati Tammjärv*, Estonian University of Life Sciences, *Ottar Tamm*, *Mait Kriipsalu*, **Estonia**

Country Specific Methane Generation Potential (L0) of Solid Wastes in Landfills in Republic of Korea, *Sangjae Jeong*, Seoul National University, *Changmin Lee*, Seoul National University, *Jae Young Kim*, Seoul National University, **Republic of Korea**

Determination of the Viability of Landfill Gas to Energy in Africa: The Case of Ghana, *Solomon Samson*, Stuttgart University, **Germany**

Characteristics of Organic Fouling on RO Membrane from MSW Leachate Treatment Systems, *Xiaolan Zeng*, Chongqing University, *Yujia Yao*, Chongqing University, *Wenchuan Ding*, Chongqing University, *Kunyu Li*, **China**

Quantification of Human Health Risk to MSW Landfill Leachate Contamination for Major Indian Cites, *Harshit Mishra*, Indian Institute of Technology, *Vinay Yadav*, Indian Institute of Technology, *Subhankar Karmakar*, Indian Institute of Technology, *Rakesh Kumar*, **India**

Partial Nitrification and Denitrification of Mature Landfill Leachate Using a Pilot-Scale Continuous Activated Sludge Process at Low Dissolved Oxygen, *Zhenguo Chen*, South China University of Technology, *Xiaojun Wang*, South China University of Technology,

Yongyuan Yang, South China University of Technology, *Markus W. Mirino Jr.*, P. R. China

Effects of Alkalinity on the Treatment of Landfill Leachate through Algae Growth, *Tahir Imran Qureshi*, NFC-Institute of Engineering & Technology, Pakistan

SESSION 3D

Case Studies

Managing Municipal Solid Waste in the Palestinian Territory: Joint Service Councils, a Sustainable Approach, *Ali Barhoum*, Joint Service Council of Solid Waste Management of the Local Authorities of Khan Younis, Rafah and Middle Area (JSC KRM), *Yasser Dwaik*, Joint Service Council of Solid Waste Management Hebron and Bethlehem, *Hani Shawahneh*, Joint Service Council of Solid Waste Management Jenin, Gaza

An Approach towards Sustainable Municipal Solid Waste Management in India, *Ketan Shah*, Swachh Bharat Mission-Gujarat, *Dhawani Shah*, Silver Oak College of Engineering, Ahmedabad, Gujarat, India

Resource Recovery from Waste in India – Case Studies, *Lakshmi Raghupathy*, TERI University, India

Assessment of Solid Waste Recovery and Utilization in a Cosmopolitan City: A Case Study of Oron Area, Akwa Ibom State, *Babatunde Emmanuel Olatunbosun*, Akwa Ibom State University, *Genius Asuquo John*, Akwa Ibom State University, *Lawrence Abiodun Ogunsola Ogunjimi*, Obafemi Awolowo University, *Edem Archbong Awak*, Nigeria

Evaluation of Impact of Municipal Solid Waste: A Case Study of Minna, Nigeria, Metropolis, *Abdulsalami Kovo*, FUT Minna, Nigeria

3:35 p.m. – 3:55 p.m.

Break

3:55 p.m. – 5:35 p.m.

Sessions 4

SESSION 4A

Agricultural Wastes 2

Conversion of Agricultural Waste to Local Cattle Nutrition in Thailand, *Siriporn Boonpa*, St. Theresa International College, Thailand

Comparative Assessment of Toxic Residues on *Clarias gariepinus* Smoked with Coal and Biochar-Loaded Kilns, *Oluseun Motunrayo Osineye*, Federal College of Fisheries and Marine Technology, *Bethel Jahnezim*, Federal College of Fisheries and Marine Technology, Nigeria

Feasible Methods of Coffee Waste Management in Ethiopia, *Dawit Abate*, Addis Ababa University, Ethiopia

Replacement of Fishmeal with Dried Chicken Intestine as Sole Animal Protein Source in the Nutrition of *Clarias gariepinus*, *Oluseun Motunrayo Osineye*, Federal College of Fisheries and Marine Technology, *Ladi Raji*, Federal College of Fisheries and Marine Technology, **Nigeria**

Preliminary Studies on Antibiotic Resistance Genes in the Soils of Three Management Practices under Greenhouse Conditions, *Ming Wu*, China Agricultural University, **China**

Closing the Plastics Loop: A Case Study Review from Queensland, Australia, *Georgina Davis*, Queensland Farmers' Federation, **Australia**

Municipal Sewage Sludge Increased Soil-Incorporated Biofumigants in Horticultural Crops, *George Antonious*, Kentucky State University, **USA**

Innovative Technology to Produce Biochar from Flower Waste, *Wondwossen Bogale Eremed*, Addis Ababa University, **Ethiopia**

Case Study: Optimal Operation of a Boiler Based on Solubility of Amorphous Silica in Rice Husk, *Masafumi Tateda*, Toyama Prefectural University, *Ryoko Sekifuji*, Toyama Prefectural University, *Atsushi Yamazaki*, Waseda University, *Mana Yasui*, **Japan**

A Comparative Study on the Effect of Sodium Chloride as a Secondary Salt Use in PKL (Scientific Name- *Bryophyllum pinnatum*) and Lemon Juice for Electricity Generation, *Md Asrafusjaman*, Jagannath University, *Tanjila Akter*, Jagannath University, *Mohammad Al Mamun*, Jagannath University, *Mehedi Hasan*, *K.A. Khan*, **Bangladesh**

SESSION 4B

Construction and Demolition Wastes

Durability Properties of Recycled and Secondary Aggregates (RSA) Concrete, *Amarnath Yerramala*, SRIT, *Ramachandrudu Chittari*, SRIT, **India**

Investigations on the Re-Utilization of Concrete Waste Sand in Composite Cements, *Martin Reformat*, Bauhaus-Universität Weimar, F.A. Finger-Institute for Building Materials Science (FIB), *Horst-Michael Ludwig*, Bauhaus-Universität Weimar, F.A. Finger-Institute for Building Materials Science (FIB), **Germany**

Evaluation of Correction of Mining Degraded Soil Acidity with Construction and Demolition Waste, *Erica Mejia*, Universidad de San Buenaventura, *Walter Osorio*, Universidad Nacional de Colombia Sede Medellín, *Jorge Ivan Tobón*, Universidad Nacional de Colombia Sede Medellín, *M. Castro*, *A. Rosso*, **Colombia**

Use of Construction and Demolition Waste (CDW) in Interlocked Floor Preparation for Paving, *Silvio Rainho Teixeira*, São Paulo State University/School of Technology and Sciences, *Caique Bonfietti Martins*, São Paulo State University/School of Technology and Sciences, *Agda Eunice Souza*, São Paulo State University/School of Technology and Sciences, *Wellington Caldeira*, **Brazil**

Use of Construction and Demolition Residues (CDR) as a Non-Plastic Material for the Production of Ceramic Bricks, *Silvio Rainho Teixeira*, São Paulo State University/School of Technology and Sciences, *Milena Gomes Talavera Gaspareto*, São Paulo State University/School of Technology and Sciences, **Brazil**

Construction and Demolition Waste Materials Recycling in Nigeria, *Olufemi Oyedele*, Government of the State of Osun, *Folasade Idowu*, Obafemi Awolowo University, Nigeria

SESSION 4C
Waste Management Planning 2

A New Perception of Municipal Solid Waste Management in Egypt: Waste to Energy Approach, *Shakinaz Taha El Sheltawy*, Cairo University Giza, *Mai Mohamed Kamal El Din Fouad*, Cairo University Giza, *Hanem Sibak*, Cairo University Giza, **Egypt**

Bio-Medical Waste Management in India – A Novel Approach, *Lakshmi Raghupathy*, TERI University, **India**

Climate Change: An Opportunity to Improve Waste Management System, *Bharat Pandey*, Lalitpur Sub Metropolitan City Office, *Pradeep Amatya*, Lalitpur Sub Metropolitan City Office, **Nepal**

SESSION 4D
*Special Workshop: Elevated Temperature in Landfills:
Occurrences, Impacts, and Resolution*

A Model to Describe Heat Generation and Accumulation at Municipal Solid Waste Landfills, *Zisu Hao*, North Carolina State University, *Joel Ducoste*, North Carolina State University, *Marco Castaldi*, The City College of New York, CUNY, *Scott Luettich*, *Craig Benson*, *Bryan Staley*, *Morton Barlaz*, **USA**

A Simple Spreadsheet Model for Elevated Temperatures in Waste, *Henry Kerfoot*, Civil and Environmental Consultants, **USA**

Heat Balance Calculations for Landfills with Accelerated Decomposition of Organic Matter and Implications for Landfill Temperature, *Henry Kerfoot*, Civil and Environmental Consultants, **USA**

Implications of Elevated Temperature Landfills to Leachate Chemistry and Treatment Technologies, *Ivan Cooper*, Civil & Environmental Consultants, Inc., **USA**

5:40 p.m. – 6:40 p.m
Posters 1

6:10 p.m. – 7:10 p.m
Reception

Information Meeting with Bryan Staley of EREF- Environmental Education and Research Foundation

POSTER SESSION 1

Fuel Properties of Municipal Solid Waste (MSW) by Using a Weighted Sum Method in a TGA, *Hong Cui*, HNEI, University of Hawaii at Manoa, *Scott Turn*, HNEI, University of Hawaii at Manoa, **USA**

Briquette Production from Solid Wastes, *Mulatu Yohannes Nanusha*, University of Algarve, **Portugal**

Solid Waste Management in Jimma City, *Michael Yirga*, Jimma University, **Ethiopia**

Solid Waste Management in Addis Abeba, *Hanna Berhanu*, Haramaya, **Ethiopia**

Marble Waste Recycling and Its Application in the Steel Desulphurization Process, *Jorge Luis Coleti*, USP - University of Sao Paulo, *Felipe Fardin Grillo*, UNESC - University of South Catarinense, *Jorge Alberto Soares Tenorio*, USP - University of Sao Paulo, **Brazil**

Waste Proliferation and Management Challenges in the Bamenda City Council of the North West Region of Cameroon, *Frederick Nfor*, University of Buea, **Cameroon**

Isolation and Characterization of Cyanide Degrading Bacteria from Artisanal Gold Mine Tailings, *Amzy Vallenias Arévalo*, USP - Universidade de São Paulo, *Claudia Monge Pimentel*, URP - Universidad Ricardo Palma, *Carlos Alvarez Rosario*, USP - Universidade de São Paulo, *B. Karolski*, *A. S. Justo*, *J. L. Coleti*, *J. A. S. Tenório*, **Brazil**

Improved Approach to Utilization of Plant Waste, *Michael Ioelovich*, Designer Energy, **Israel**

Agricultural Use of the Digested Sludge Obtained from the Synergic Anaerobic Digestion Two Phase Temperature and O₃ Process in Waste Water Treatment Plants, *Carlos Garcia*, CEBAS-CSIC, *Guillermo Berlanga*, FACSA, Grupo Gimeno, *Elena Zuriaga*, FACSA, Grupo Gimeno, *B. Hernández*, *I. Pastor*, *Teresa Hernández*, **Spain**

Asphalt Mixtures Energy Consumption and Emission, *Liseane Padilha Thives*, Federal University of Santa Catarina, *EneDir Ghisi*, Federal University of Santa Catarina, **Brazil**

Recovery of Alum and Recycling of Water from the Sludge - Solid/Water Management in Sinai, Egypt, *Mona Mansour*, Egyptian Petroleum Research Institute, *Hussein Abdel Elshafy*, National Research Center, **Egypt**

A Comparative Study on the Effect of Sodium Chloride as a Secondary Salt Use in PKL (Scientific Name- *Bryophyllum pinnatum*) and Lemon Juice for Electricity Generation, *Md Asrafusjaman*, Jagannath University, *Tanjila Akter*, Jagannath University, *Mohammad Al Mamun*, Jagannath University, *Mehedi Hasan*, *K.A. Khan*, **Bangladesh**

A Comparative Review of Biogas Production from Microalgae Biomass and Microalgae Waste, *Laura Vargas*, Instituto de Energias Renovables-UNAM, *Emilio Arenas*, Instituto de Energias Renovables-UNAM, *Pathiyamattom Joseph Sebastian*, Instituto de Energias Renovables-UNAM, **Mexico**

Characteristics of Organic Fouling on RO Membrane from MSW Leachate Treatment Systems, *Xiaolan Zeng*, Chongqing University, *Yujia Yao*, Chongqing University, *Wenchuan Ding*, Chongqing University, *Kunyu Li*, **China**

Quantification of Human Health Risk to MSW Landfill Leachate Contamination for Major Indian Cites, *Harshit Mishra*, Indian Institute of Technology, *Vinay Yadav*, Indian Institute of Technology, *Subhankar Karmakar*, Indian Institute of Technology, *Rakesh Kumar*, **India**

Management of Weed Waste Generated from Dal Lake, Kashmir, *Humaira Qadri*, Sri Pratap College, *Sameer Farooq*, Sri Pratap College, *Shahid Ahmad Wani*, Sri Pratap

College, *Abdul Roouf Bhat, Khursheed Ahmad Parry, India*

Analysis of Mechanical Properties and Durability of Concrete with Fly Ash, *David Alison Araujo Silva, Federal University of Ceara, Wanner Kelly Damasceno da Silva, Federal University of Ceara, Antonio Eduardo Bezerra Cabral, Federal University of Ceara, Brazil*

Analysis of Mechanical Resistance to Tension and Deformation in the Solid Waste Plastic Mixture of Polypropylene and Polystyrene, *David Orjuela Yepes, Santo Tomás University, Johanna Karina Solano Meza, Santo Tomás University, Daylin Julieth Betancourt Sánchez, Santo Tomás University, Colombia*

Mitigation of Greenhouse Gas Emissions from Landfills by Mechanical Biological Treatment - A Brazilian Case Study, *Francisco Contreras, University of Brasilia, Fernanda Lemos da Silva, University of Brasilia, Brazil*

Managing Municipal Solid Waste in the Palestinian Territory: Joint Service Councils, a Sustainable Approach, *Ali Barhoum, Joint Service Council of Solid Waste Management of the Local Authorities of Khan Younis, Rafah and Middle Area (JSC KRM), Yasser Dwaik, Joint Service Council of Solid Waste Management Hebron and Bethlehem, Hani Shawahneh, Joint Service Council of Solid Waste Management Jenin, Gaza*

Social Aspects of Solid Wastes Management in Curitiba: Green Exchange – A Success Case, *Marisa Soares Borges, Federal University of Parana, Flavia Soccol, Pontifical Catholic University of Parana, Marina C.R. Ballao, Municipal Secretariat of Environment Curitiba City Hall, Brazil*

Problems and Prospects of Solid Waste Management in South Africa: A Case of Khayelitsha Community, *Aifani Confidence Tahulela, Cape Peninsula University of Technology, Harry Ballard, Cape Peninsula University of Technology, South Africa*

Evaluation of Correction of Mining Degraded Soil Acidity with Construction and Demolition Waste, *Erica Mejia, Universidad de San Buenaventura, Walter Osorio, Universidad Nacional de Colombia Sede Medellín, Jorge Ivan Tobón, Universidad Nacional de Colombia Sede Medellín, M. Castro, A. Rosso, Colombia*

Solid Waste Segregation Assessment through Activities of Environmental Education in a Municipality of Rio Grande do Sul State, Brazil, *Vania Elisabete Schneider, Universidade de Caxias do Sul, Verônica Casagrande, Universidade de Caxias do Sul, Sofia Helena Zanella Carra, Universidade de Caxias do Sul, Brazil*

TUESDAY, MARCH 21

8:00 a.m. - 5:30 p.m.

Conference check-in and registration

8:00 a.m. – 8:30 a.m.

Coffee

8:30 a.m. - 10:10 a.m.

Sessions 5

SESSION 5A
Policy and Public Involvement 2

Is the View of Gender Precariousness in Australia's Waste and Recycling Sector Justified?, *Georgina Davis*, The Waste to Opportunity Enterprise, **Australia**

Social Aspects of Solid Wastes Management in Curitiba: Green Exchange – A Success Case, *Marisa Soares Borges*, Federal University of Parana, *Flavia Soccol*, Pontifical Catholic University of Parana, *Marina C.R. Ballao*, Municipal Secretariat of Environment Curitiba City Hall, **Brazil**

Training Professional Drivers in Australia's Waste Management and Recycling Sector, *Keith Heavens*, TAFE Queensland SkillsTech, *Georgina Davis*, Griffith University, **Australia**

Environmental Education: An Advocacy of a Travel Agency in Davao City, Philippines, *Lilia Panchito*, Davao Merchant Marine Academy-College of Southern Philippines, *D'Artagnan Yambao*, Philippine Long Distance Telephone, *Shomae Lilli Panchito*, Agro Industrial Foundation College of the Philippines, *Ruben A. Neri*, *Elisa P. Madrazo*, *Jonathan Naraval*, **Philippines**

North America's First Independent Producer Responsibility Regime Set to Launch, *Jonathan Cocker*, Baker & McKenzie LLP, **Canada**

Solid Waste Segregation Assessment through Activities of Environmental Education in a Municipality of Rio Grande do Sul State, Brazil, *Vania Elisabete Schneider*, Universidade de Caxias do Sul, *Verônica Casagrande*, Universidade de Caxias do Sul, *Sofia Helena Zanella Carra*, Universidade de Caxias do Sul, **Brazil**

Utilization of Co-Products of Enzyme-Assisted Aqueous Extraction of Soybeans for Corn Fermentation, *Jasreen Sekhon*, Drexel University, *Tong Wang*, Iowa State University, *Stephanie Jung*, California Polytechnic State University, *Kurt Rosentrater*, **USA**

SESSION 5B
Biological Treatment 2

Comparative Analysis of Bio-Gas Electrification from Anaerobic Digestion of Municipal Waste in Nepal, *Suman Dhun Shrestha*, Kathmandu University, *Bim Prasad Shrestha*, Kathmandu University, *Nabin Kumar Shrestha*, Kathmandu University, **Nepal**

Exploration of Biodrying Process for Mixed Municipal Solid Waste Management, *Asha P. Tom*, Cochin University of Science and Technology, *Ajit Haridas*, National Institute of Interdisciplinary Science and Technology, Trivandrum, *Renu Pawels*, Cochin University of Science and Technology, **India**

Carbonization of Reed Plant in a Fluidized Bed Pyrolysis Reactor, *Bassim Abbassi*, University of Guelph, *Ramesh Rudra*, University of Guelph, *Kayla Schmidt*, University of Guelph, *Faisal Shahin*, **Canada**

SESSION 5C
Facility Siting

Interval Optimization Approach for Municipal Solid Waste Management Systems, *Vinay Yadav*, Indian Institute of Technology Bombay, *Ajay Kumar Bhurjee*, National Institute of Science and Technology Berhampur, *Subhankar Karmakar*, Indian Institute of Technology Bombay, *A. K. Dikshit*, **India**

Landfill Site Selection Using Multi Criteria Decision Analysis - A Case Study for Gulshan-E-Iqbal Town, Karachi Pakistan, *Saad Malik*, Institute of Space Technology, *Javeria Gabriel Arain*, Institute of Space Technology, **Pakistan**

SESSION 5D

Environmental and Health Impacts

Evaluation of Environmental Performance and Identification of Key Process Parameters of Sewage Sludge and Food Waste Treatment Systems, *Irene M. C. Lo*, The Hong Kong University of Science and Technology, *Sam L. H. Chiu*, The Hong Kong University of Science and Technology, **Hong Kong**

Impact of Composting and Landfill Emissions on Climate Change, *Sutripta Sarkar*, Barrackpore Rastraguru Surendranath College, *Sadhan Kumar Ghosh*, Jadavpur University, **India**

Human Exposure of Chemicals Released from Plastic during Reuse and Recycling: Mixture Toxicity Issues and Challenges, *Tanushree Parsai*, Indian Institute of Technology Delhi, *Arun Kumar*, Indian Institute of Technology Delhi, **India**

Environmental Locus of Control and Waste Management Behaviour of an Urban Centre in Nigeria, *Femi Ilevbare*, Obafemi Awolowo University, **Nigeria**

Systematic Quantification of GHG Emissions Inventory Using USEPA Mandatory Reporting Rules Methodology: A Case Study of Cedar Hills Regional Landfill, King County, WA, *Mizanur Rahman*, King County Solid Waste Division, *Toraj Ghofrani*, King County Solid Waste Division, **USA**

10:10 a.m. – 10:30 a.m.

Break

10:30 a.m. – 12:25 p.m.

Sessions 6

SESSION 6A

Waste Business Analyses

Emergent Opportunities of Solid Waste Resources Recovery and Entrepreneurial Development: A Study of Nigeria Federal Capital Territory, Abuja, *Sylvester Abomeh Ofobruku*, University of Nigeria, *Emmanuel Kalu Agbaeze*, University of Nigeria, **Nigeria**

Analysis of Barriers to Recyclable Market Development with the Inclusion of Waste Picker Organizations from Espirito Santo/Brazil: Scenarios for Appreciation, *Renato*

Ribeiro Siman, Federal University of Espírito Santo, *Renato Meira de Souza Dutra*, Federal University of Espírito Santo, *Luciana Harue Yamane*, Federal University of Espírito Santo, **Brasil**

Occupational Dysfunction in Creating Value Proposition for Waste Pickers Organizations in Espírito Santo/Brazil, *Renato Ribeiro Siman*, Federal University of Espírito Santo, *Juliana Pardini Tackla*, Federal University of Espírito Santo, *Roquemar de Lima Baldam*, Federal University of Espírito Santo, *Luciana Harue Yamane*, **Brasil**

SESSION 6B

Waste Management in Developing Areas

Analysis of Social Economic Factors Affecting Household Solid Waste Management in Urban Areas of Uganda, *Denis Kaffoko*, Uganda Martyrs University, **Uganda**

Integrated Waste Management Systems for Developing Economies, *Lakshmi Raghupathy*, TERI University, **India**

Waste Recycling: What Do Nigerian Prospective Teachers Know, Do and Feel?, *Ayodeji Ifegbesn*, University of Johannesburg, *Isaac T. Rampedi*, University of Johannesburg, **South Africa**

Exploitation of Energy Potential of Municipal Solid Waste in Low Income Economies in Sub-Saharan Africa, *Asinyetogha Hilkiyah Igoni*, Rivers State University of Science and Technology, *Ibiye Sepiribo Kingnana Harry*, Rivers State University of Science and Technology, **Nigeria**

A Study of MSWM System in Homs City, Syrian Arab Republic Learning Experiences of Chongqing, China, *Mohamad Noufal*, Chongqing University, *Baizhan Li*, Chongqing University, *Yuanyuan Liu*, Chongqing University, *Zena Maalla*, **China**

Influential Factors Favouring Sustainability of Solid Waste Management in the Gaza Strip, *Mustafa El-Hawi*, Al-Aqsa University, *Atef Jaber*, Environmental Quality Authority, **Gaza**

Characteristics and Management of Domestic Waste in Rural Area of China, *Zhiyong Han*, State Key Laboratory of Geohazard Prevention and Geoenvironment Protection (Chengdu University of Technology), *Guozhong Shi*, Biogas Institute of Ministry of Agriculture, *Zeng Dan*, Science School of Tibet University, **China**

Waste Management in Developing Nations: Challenges and Opportunities, *Olufemi Oyedele*, Government of the State of Osun, *Oluwaseun Ajala*, Federal Road Service Corps, **Nigeria**

Using the Young to Realise Solid Waste Management Goals in Municipals in Developing Countries, *Joan Chepkoech Tonui*, Jomo Kenyatta University of Agriculture and Technology, *Oscar Sang*, County Government Bomet - Kenya, **Kenya**

SESSION 6C

Use of Wastes in Construction 2

Applying NaOH Modified Rubber Particles in Portland Cement Concrete, *Qingli Dai*, Michigan Tech, **USA**

Analysis of Mechanical Properties and Durability of Concrete with Fly Ash, *David Alison Araujo Silva*, Federal University of Ceara, *Wanner Kelly Damasceno da Silva*, Federal University of Ceara, *Antonio Eduardo Bezerra Cabral*, Federal University of Ceara, **Brazil**

Pervious Concrete Pavement: An Ecofriendly Solution, *Marleisa Arocho-Irizarry*, University of Puerto Rico at Mayagüez, *Sangchul Hwang*, University of Puerto Rico at Mayagüez, **Puerto Rico**

Analysis of Mechanical Resistance to Tension and Deformation in the Solid Waste Plastic Mixture of Polypropylene and Polystyrene, *David Orjuela Yepes*, Santo Tomás University, *Johanna Karina Solano Meza*, Santo Tomás University, *Daylin Julieth Betancourt Sánchez*, Santo Tomás University, **Colombia**

Evaluation of Partial Replacement of Calcium Carbide Residue with Cement on Compressive Strength of Concrete: Implication for Waste to Wealth, *Olubunmi Ajike Mokuolu*, University of Ilorin, *Bolarinwa Olaniyi*, University of Ilorin, **Nigeria**

12:25 p.m. – 1:25 p.m.
Poster Session 2

POSTER SESSION 2

Environmental Education: An Advocacy of a Travel Agency in Davao City, Philippines, *Lilia Panchito*, Davao Merchant Marine Academy-College of Southern Philippines, *D'Artagnan Yambao*, Philippine Long Distance Telephone, *Shomae Lilli Panchito*, Agro Industrial Foundation College of the Philippines, *Ruben A. Neri*, *Elisa P. Madrazo*, *Jonathan Naraval*, **Philippines**

Behavior of a Sand and a Clayey Soil Stabilized with Mineral Coal Fly Ash and Lime for Geotechnical Applications, *Amanda Meliande*, Pontificia Universidade Católica do Rio de Janeiro, *Michéle Casagrande*, Pontificia Universidade Católica do Rio de Janeiro, **Brazil**

Healthcare Waste Generation and Management in Public Healthcare Facilities in Adama, Ethiopia, *Samuel Fekadu Hayleeyesus*, Jimma University, *Wondemagegn Cherinete*, **Ethiopia**

Management of Medical Waste in Urban and Rural Clinics, *France Raphela*, Central University of Technology, Free State, **South Africa**

Contributing to a Sustainable Packaging Waste Management under a Circular Economy Approach: The Case Study of the Canned Anchovy Sector, *Jara Laso*, University of Cantabria, *Maria Margallo*, University of Cantabria, **Spain**

From a Linear to a Circular Economy: Environmental Concerns of Recycling Bottom and Fly Ashes from Municipal Solid Waste Incineration, *Maria Margallo*, University of Cantabria, **Spain**

Utilization of Some Environmental Resource Materials as a Soil Conditioner, *Ahmed Abuzkhar*, University of Tripoli, **Libya**

Designing of Fly-Ash Reinforced Waste Plastic Composite Tiles for Societal Usage, *Ridham Dhawan*, CSIR - National Physical Laboratory, *Sundeep Kumar Dhawan*, CSIR - National Physical Laboratory, **India**

Design of an Engineered Landfill for a Growing Urban Area in Nigeria, *Taofik Olalekan Ajjola*, Federal University of Technology, Akure, **Nigeria**

Integrated Sustainable Waste Management for Santiago de Chile and Inclusion of the Informal Sector, *Fernanda Cabanas*, Columbia University, *Athanasios Bourtsalas*, Columbia University, *Alex Godoy-Faundez*, Universidad del Desarrollo, **USA**

Estimation of the Energy Recovery Potential of Discarded Recyclable Solid Waste (Santo André, SP, Brazil), *Rodolfo Sbrolini Tiburcio*, Universidade Federal do ABC, Centro de Engenharia, Modelagem e Ciências Sociais Aplicadas, *Mauro Malpeli Junior*, Universidade Federal do ABC, Centro de Engenharia, Modelagem e Ciências Sociais Aplicadas, *Andrea Carolina Gutierrez Gomez*, Universidade Federal do ABC, Centro de Engenharia, Modelagem e Ciências Sociais Aplicadas, *Juliana Tófano de Campos Leite Toneli*, *Ana Maria Pereira Neto*, **Brazil**

Influence of Municipal Solid Waste Physical Composition in the Energy Potential of the Combustible Fraction of Wet Waste in Santo André City, SP, Brazil, *Andrea Carolina Gutierrez Gomez*, Universidade Federal do ABC, Centro de Engenharia, Modelagem e Ciências Sociais Aplicadas, *Renata Almeida*, Universidade Federal do ABC, Centro de Engenharia, Modelagem e Ciências Sociais Aplicadas, *Rodolfo Sbrolini Tiburcio*, Universidade Federal do ABC, Centro de Engenharia, Modelagem e Ciências Sociais Aplicadas, *Mauro Malpeli*, *Juliana Tófano dos Campos Leite Toneli*, *Gilberto Martins*, *Ana Maria Pereira Neto*, **Brasil**

Synergetic Incorporation of Granite Waste and Coffee Husk Ash in Clay-Based Products, *Wilson Acchar*, Federal University of Rio Grande do Norte, *Keite Avelino*, Federal University of Rio Grande do Norte, **Brazil**

Agronomic Valorization of the Active Sludge from the Waste-Water Microalgae-Bacteria Treatment and of the Digestate Produced in the Anaerobic Digestion of this Sludge for Obtaining Biogas, *Teresa Hernandez*, CEBAS CSIC, *Guillermo Berlanga*, FACSA, Grupo Gimeno, *Isabel Tormos*, FACSA, Grupo Gimeno, *D. Miguel*, *L. Chacón*, *M. Ballesteros*, *C. Gonzalez*, *Carlos Garcia*, **Spain**

Reclamation of Used Lubricants of Different Vacuum Pumps, *Abrar Khan*, Beijing University of Chemical Technology, *Hameed Ullah*, Hazara University Mansehra Pakistan, *Muhammad Maqsood*, National Institute of Vacuum Science and Technology, *Bilal Ahmed*, *Kamran Tahir*, *Wajid Ali*, **China**

Evaluation of Asphalt Mixtures Using Red Mud as a Filler, *Liseane Padilha Thives*, Federal University of Santa Catarina, *Mayara Lima*, Federal University of Santa Catarina, *Glicério Trichês*, Federal University of Santa Catarina, **Brazil**

Waste Tires: Reverse Logistics in Brazil, *Liseane Padilha Thives*, Federal University of Santa Catarina, *Gabriel Dibe Andrade*, Federal University of Santa Catarina, *Thiago Romeu Antunes*, Federal University of Santa Catarina, *Claudio Zimermann*, **Brazil**

An Overview of Current Waste Management Policy Efficiency in Botswana, *Daniel Mmereki*, Chongqing University, *Andrew Baldwin*, Chongqing University, *Baizhan Li*, Chongqing University, *Liu Hong*, **China**

Comparative Analysis of Bio-Gas Electrification from Anaerobic Digestion of Municipal Waste in Nepal, *Suman Dhun Shrestha*, Kathmandu University, *Bim Prasad Shrestha*, Kathmandu University, *Nabin Kumar Shrestha*, Kathmandu University, **Nepal**

A Novel Iron Carbonate Binder that Recycles Steel Dust, Crushed Glass, and Carbon Dioxide, *David Stone*, Iron Shell LLC, Tohono O'odham Community College, *Sumanta Das*, University of Rhode Island, *Leonid Frayman*, Allegheny Coatings, **USA**

The Formation of Inorganic Fouling Scales on RO Membrane in a Landfill Leachate Treatment System, *Xiaolan Zeng*, Chongqing University, *Yongzhou Huang*, Chongqing University, *Wenchuan Ding*, Chongqing University, *Kunyu Li*, **China**

Partial Nitrification and Denitrification of Mature Landfill Leachate Using a Pilot-Scale Continuous Activated Sludge Process at Low Dissolved Oxygen, *Zhenguo Chen*, South China University of Technology, *Xiaojun Wang*, South China University of Technology, *Yongyuan Yang*, South China University of Technology, *Markus W. Mirino Jr.*, **P. R. China**

Biogas as a Strategic Resource on Renewable Energies in South Brazil, *Marisa Soares Borges*, Federal University of Parana, *Marcelo Alves de Sousa*, Parque Tecnológico Itaipu, *Janaina Camile Pasqual*, Parque Tecnológico Itaipu, *Iara B.R. Rosa*, *Driely Rosa*, **Brazil**

Climate Change: An Opportunity to Improve Waste Management System, *Bharat Pandey*, Lalitpur Sub Metropolitan City Office, *Pradeep Amatya*, Lalitpur Sub Metropolitan City Office, **Nepal**

1:25 p.m. – 2:15 p.m.
Luncheon

2:15 p.m. – 4:15 p.m.
Sessions 7

SESSION 7A
Landfill 3

The Formation of Inorganic Fouling Scales on RO Membrane in a Landfill Leachate Treatment System, *Xiaolan Zeng*, Chongqing University, *Yongzhou Huang*, Chongqing University, *Wenchuan Ding*, Chongqing University, *Kunyu Li*, **China**

Advanced Treatment of Landfill Leachate by Chemical Oxidation - Biological Aerated Filter Processes, *Xiaojun Wang*, South China University of Technology, *Xiaoyang Gu*, Hualu Environmental Technology Co., Ltd., *Zhenguo Chen*, South China University of Technology, **P. R. China**

Application of Membrane Technology to Treat Landfill Leachate, *Thomas Pullar*, EarthRes Group, Inc., **USA**

Comparing Different Options for Leachate Treatment in a Life Cycle Perspective, *Francesco Di Maria*, Università di Perugia, *Federico Sisani*, Università di Perugia, **Italia**

Effect of Biological Pretreatment on the Behaviour of Municipal Solid Waste in Bioreactor Landfill, *Asif Siddiqui*, Aligarh Muslim University, **India**

SESSION 7B
Recycled Materials

Integrating Solid Waste Management and Transportation Safety with Pervious Concrete Bicycle Path, *Carla Moreno Cortés*, University of Puerto Rico, Mayaguez Campus, *Alesandra Morales Vélez*, University of Puerto Rico, Mayaguez Campus, *Enrique González Vélez*, University of Puerto Rico, Mayaguez Campus, *Sangchul Hwang*, **Puerto Rico**

Disposal of Date Expired Non-Alcoholic Beverages in Cement Industries, *Srivatsav Gone*, Telangana State Pollution Control Board, *Girish B. V. Bhadra*, Telangana State Pollution Control Board, **India**

Geotechnical Characterisation of Neutralised Red Mud for Use in Civil Engineering Construction and Manufacturing, *Sebastian Quintero Olaya*, The University of Queensland, *Maria del Pilar Durante Ingunza*, Federal University of Rio Grande do Norte/UFRN, *David J. Williams*, The University of Queensland, *Mehdi Serati*, **Australia**

Studies on the Effects, Disposal and Management of Mining and Mineral Processing Wastes of Few Indian Industries, *Nagabhushan Etakula*, University College of Technology, *Raja Rao Proddoku*, University College of Technology, **India**

Effect of Fly Ash Addition in the Rheological Behaviour of Red Mud Slurry, *Maria P. D. Ingunza*, Federal University of Rio Grande do Norte (UFRN), *David J. Williams*, The University of Queensland, *Sebastian Quintero Olaya*, The University of Queensland, **Brazil**

Comprehensive Utilization of Chlor-Alkali Industry Salt Sludge, *Jeng-Ywan Shih*, Ming Chi University of Technology, *Kuan-Chun Chiu*, Ming Chi University of Technology, *Zhi-Run Chen*, Ming Chi University of Technology, **Taiwan**

A Novel Iron Carbonate Binder that Recycles Steel Dust, Crushed Glass, and Carbon Dioxide, *David Stone*, Iron Shell LLC, Tohono O'odham Community College, *Sumanta Das*, University of Rhode Island, *Leonid Frayman*, Allegheny Coatings, **USA**

Study of a Polyethylene Terephthalate (PET) Fibers Reinforced Sand Under Triaxial Tests, *Phillipe Campello Senez*, Pontifical Catholic University of Rio de Janeiro, *Michéle Dal Toé Casagrande*, Pontifical Catholic University of Rio de Janeiro, **Brazil**

Utilization of Solid Plastic Waste in the Cement Concrete, *Venu Malagavei*, Dilla University, *Jaison Joy Memadam*, Dilla University, *Arega B. Eadema*, Dilla University, **Ethiopia**

Waste Management in a Steel Industry, *Sweta Sukul*, Steel Authority of India Limited, **India**

4:30 p.m. – 6:30 p.m.

SESSION 8A
Special Workshop

Evaluating the Dynamic Characteristics of Municipal Solid Waste for Geotechnical Purposes, *Naveen BP*, Department of Civil Engineering, Indian Institute of Science, **India**

6:45 p.m. – 7:45 p.m.
Closing Reception

WEDNESDAY MARCH 22

8:00 a.m. – 9:00 a.m.
Conference check-in and registration

8:00 a.m. – 9:00 a.m.
Coffee

9:00a.m. – 2:00 p.m.
Technical Field Trips (choose 1)

Details will be posted in early February.