

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

Annapolis, MD (Washington, DC), USA

March 11-14, 2018

AGENDA

(updated January 11, 2018)

Department of Civil Engineering
Widener University
1 University Place
Chester, PA 19013-5792 USA
Phone: 610-499-4042
Fax: 610-499-4461
email: solid.waste@widener.edu
<http://solid-waste.org>

Founder: Iraj Zandi
University of Pennsylvania

Chair: Ronald L. Mersky
Widener University

Manager: Joy Foster
Widener University

Sponsors



Widener
University



Partners

The Journal of Solid Waste Technology and Management



Scientific Committee:

- Haluk Akgun, Middle East Technical University (METU), Turkey
- Professor Joseph Akunna, Abertay University, Dundee, UK
- Prof. Ofira Ayalon, University of Haifa and Samuel Neaman Institute, Technion, Israel
- Giuseppe Bonifazi, Sapienza – Università di Roma – La Sapienza, Italy
- Prof. Dr. Sadhan Kumar Ghosh, President, International Society of Waste Management, Air and Water (ISWMAW-IconSWM) and Professor, Mechanical Engineering, Jadavpur University, Kolkata, India
- Prof. Mervat El-Hoz, University of Balamand, Lebanon
- Nissim Ilan, Ministry Energy, Israel
- Maria Liubarskaia, Saint-Petersburg State University of Economics, Baltic Academy of Tourism and Entrepreneurship, Russia
- Masato R. Nakamura, New York City Tech, CUNY, USA
- Sara Ojeda Benitez Instituto de Ingeniería Universidad Autónoma de Baja California, México
- Dr. Chukwu Onu, Southern University and A & M College, Baton Rouge, Louisiana, USA
- Genxing Pan, Nanjing Agricultural University, China
- Dr. Mary Purcell, Cork Institute of Technology, Ireland
- Dr. Lakshmi Raghupathy, TERI University, India
- Prof. Krishna R. Reddy, University of Illinois, Chicago, USA
- Dr. Masafumi Tateda, Toyama Prefectural University, Japan
- Jerry E. Uhuo, Ph. D., University of Nigeria, Nsukka and National Assembly, Abuja, Nigeria
- Anita Závodská, Ph.D., Barry University, USA

CONFERENCE SUMMARY

SUNDAY, MARCH 11, 2018

- Pre-Conference Tour of Annapolis
- Opening Reception

MONDAY, MARCH 12, 2018

Opening Plenary

Oral Presentations

- 1A Economic Analyses
- 1B Use of Wastes in Construction 1
- 1C Composting and Biological Treatment 1
- 1D Landfill 1

- 2A Community Education and Participation
- 2B Construction and Demolition Wastes
- 2C Environmental Assessment
- 2D Recycling
- 2E Case Studies 1

- 3A Special Session: Emerging Contaminants Found in Landfill Leachate
- 3B Waste Collection
- 3C Agricultural and Food Wastes 1
- 3D Medical Wastes

- 4A Waste to Energy 1
- 4B Integrated Management and Policy
- 4C Shell Wastes
- 4D Ash Utilization
- 4E Innovative Technologies

Poster Session 1

TUESDAY, MARCH 13, 2018

Oral Presentations

- 5A Use of Wastes in Construction 2
- 5B Contaminated Sites
- 5C Mining Wastes
- 5D Composting and Biological Treatment 2

- 6A Agricultural and Food Wastes 2
- 6B Landfill 2
- 6C Sludge Management
- 6D Special Wastes

Poster Session 2

- 7A Sludge and Wastewater Management
- 7B Waste to Energy 2
- 7C Research Advances
- 7D Case Studies 2

Closing Reception

WEDNESDAY, MARCH 14, 2018

Technical Field Trips

DETAILED AGENDA

SUNDAY, MARCH 11

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

Conference check-in and registration

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

Guided Tour of Annapolis
(additional fee)

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

Welcome Reception

MONDAY, MARCH 12

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

Conference check-in and registration

8:00 a.m. - 8:45 a.m.

Coffee

8:45 a.m. - 10:00 a.m.

Opening Plenary

Keynote Address: A Strategic Overview of Research Needs and Problems in North America and Abroad, Bryan Staley, Environmental Research & Education Foundation (EREF), USA

Plenary Presentations:

Zero Landfill Zero Waste - Connecting People to Nature, *Sadhan Kumar Ghosh*, President, International Society of Waste Management, Air and Water, & Mechanical Engineering Dept., Jadavpur University, **India**

In Search of Secondary Resource - Research Potential in Waste, *Lakshmi Raghupathy*, TERI University, **India**

10:05 a.m. - 11:30 a.m.

Sessions 1

SESSION 1A

Economic Analyses

Who Should Really Pay for Waste Management?, *Anita Zavodska*, Barry University, *Anne Morrissey*, Dublin City University, **USA**

Evaluation of the Performance and Profitability of Waste Businesses Using Diversion Indices, *Conglian Pan*, University of Regina, *Kelvin T.W. Ng*, University of Regina, *Amy Richter*, University of Regina, **Canada**

Modeling Economic Aspects of Food Waste-to-Energy Systems, *Matthew Franchetti*, The University of Toledo, *Somik Ghose*, The University of Toledo, **USA**

Synthetic Wood Generation through the Reuse of Solid Waste: An Environmentally Sustainable Product, *Marisa S. Borges*, Federal University of Parana, *Jonathan Cocker*, Baker & McKenzie LLP, *Douglas Santos*, INPI, **Brazil**

SESSION 1B

Use of Wastes in Construction 1

Geotechnical Evaluation of Recycled Concrete Aggregate (RCA) and Recycled Ceramic Coating (RCC) for Road Construction, *Henrique Pereira*, UNESC, *LuiZ Renato Steiner*, UNESC, *Ingrid Belchior*, UNESC, **Brazil**

Ceramic Ware Waste Potential as Co-Ballast in Dense Mansory Unit Production, *Ajayi-Banji Ademola*, University of Ilorin, *David Jenyo Adewale*, University of Ilorin, **Nigeria**

RCD Ceramicos as Alternative in Concrete Manufacture, *Carlos Mejía*, Universidad de San Buenaventura Medellín, *Luis Sierra*, Universidad de San Buenaventura Medellín, *Sergio Arboleda*, Institución Universitaria Colegio Mayor de Antioquia, *Jesús Zuluaga*, **Colombia**

Experimental Investigation of the Compressive Strength of Hair Fiber Reinforced Concrete with Superplasticizer, *Manny Anthony Taguba*, National University, *Franz Santos*, National University, *Allan Alzona*, National University, *Gabriel L. Nones*, **Philippines**

Study on the Shrinkage of Concrete with Pre-Wetting Recycled Aggregate, *Fei Li*, Beijing University of Civil Engineering and Architecture, **China**

SESSION 1C

Composting and Biological Treatment 1

Methane Production from Restaurant Food Waste in Batch Systems at Mesophilic Conditions, *Ivan Moreno-Andrade*, Institute of Engineering, Universidad Nacional Autónoma de México, *Maria Jose Berrocal-Bravo*, Institute of Engineering, Universidad Nacional Autónoma de México, *Beatriz Pérez-Aragón*, Institute of Engineering, Universidad Nacional Autónoma de México, **Mexico**

Application of Mixed Organic Waste for Effective Septage Treatment through In-Vessel Co-Composting, *Anu Rachel Thomas*, Indian Institute of Technology Madras, *Ligy Philip*, Indian Institute of Technology Madras, *Martin Kranert*, University of Stuttgart, **India**

Rice-Straw Lining on Inner Walls of Composting Boxes to Regulate Heat Storage for Thermophilic Microorganism Functions in Digesting Organic Garbage, *Chulabut Chanthasoon*, The King's Royally Initiated Laem Phak Bia Environmental Research and Development Project, Chaipattana Foundation, *Kasem Chunkao*, Kasetsart University, *Noppawan Semvimol*, Kasetsart University, *Jeerasak Phermsin*, **Thailand**

Flexible Energy Production through Combined Hydrogen and Methane Production at a Municipal Sewage Treatment Plant, *Marco Küppers*, University Duisburg-Essen, *Jens Schoth*, University Duisburg-Essen, *Ruth Brunstermann*, University Duisburg-Essen, **Germany**

Enhancement of Biogas Production from Organic Fraction of Municipal Solid Waste (OFMSW) Using Acid Pretreatment, *Arpita Dasgupta*, Indian Institute of Technology Bombay, *Munish Kumar Chandel*, Indian Institute of Technology Bombay, **India**

SESSION 1D ***Landfill 1***

The Effect of Using Prefabricated Vertical Drains on Secondary Settlement, *Mohammad Al-Quraan*, Geosyntec Consultants, *Andrew Stalling*, Geosyntec Consultants, *David Espinoza*, Geosyntec Consultants, **USA**

Redevelopment of Landfill Site Eysels, Turnhout, Belgium, *Bart Nevejans*, Aertssen Group, **Belgium**

An Innovative Passive Approach to Remediation at a Closed Landfill, *Laura Oakes*, EA Engineering, Science, and Technology, Inc., PBC, *Michael Hertz*, EA Engineering, Science, and Technology, Inc., PBC, *Michael Phillips*, EA Engineering, Science, and Technology, Inc., PBC, *Kari Hodgson*, **USA**

Insight into Kinetics and Ultimate Methane Potential of Representative Municipal Solid Waste, *Meetkumar Govani*, Pandit Deendayal Petroleum University, *Shashikant Kamble*, National Environmental Engineering Research Institute, *Anurag Kandya*, Pandit Deendayal Petroleum University, **India**

Using Synthetic Biogas to Evaluate Adsorbents for Removing Siloxane Contaminants from Biogas Streams under Varying Conditions, *Clara Eichler*, Virginia Tech, *Steven Cox*, Virginia Tech, *Gregory Boardman*, **USA**

Case Studies of Landfills of Indochina Peninsula, Deep Pit Disposal on Geological Barrier and Its Effects on Leachate Quality and Groundwater, *Phetyasone Xaypanya*, Tokyo Institute of Technology, *Jiro Takemura*, Tokyo Institute of Technology, *Chart Chiemchaisri*, Kasetsart University, *Hul Seingheng*, *Maria N. Tanchuling*, **Japan**

Spatial Analysis of Groundwater Quality around MSW Landfill Site, *Sachin Mishra*, Indian Institute of Technology (BHU) Varanasi, **India**

Utilization of Selected Fungal Strains to Treat Old Landfill Leachate, *Mofizul Islam*, University of Manitoba, *Qiuyan Yuan*, University of Manitoba, **Canada**

Estimation of Half-Life of Municipal Solid Waste, *Dorairaja Raghu*, NJIT, *Swamy Basim*, Central Connecticut State University, **USA**

Assessment of Ammonia Removal from Landfill Leachate Using Ultrasonic Irradiation, *Majid Sartaj*, University of Ottawa, *Andrew Tobalt*, Environment Canada, **Canada**

11:30 a.m. – 11:50 a.m.

Break

11:50 a.m. – 1:10 p.m.

Sessions 2

SESSION 2A

Community Education and Participation

Evaluation of Waste Recycling Practices of Primary School Learners in Mamelodi Township of South Africa, *Isaac Tebogo Rampedi*, University of Johannesburg, *Gilani Muriel Makhubele*, University of Johannesburg, **South Africa**

Waste Management and the Role of the Media in Educating the People of Ghana, *Nana Kwasi Ntim Gyakari*, University of Tsukuba, **Japan**

The ‘Real Nappies for London’ Scheme - Waste Prevention and Wider Social Benefits - 2012-2017, *Charles Warner*, University of Northampton, **United Kingdom**

Energy and Resource Recovery from Litters Generated in a Community for Reducing Green House Gas Emission and Mitigating Climate Change Effects, *Taiwo Babatunde Hammed*, University of Ibadan, *Shem O. Wandiga*, University of Nairobi, *Yacob Mulugetta Mulugetta*, University College London, *M.K.C. Sridhar*, **Nigeria**

Solid Waste Management in a University Campus in Brazil, *Liseane Padilha Thives*, Federal University of Santa Catarina, *EneDir Ghisi*, Federal University of Santa Catarina, **Brazil**

Raising Waste Management Awareness in Nigerian Schools, A Case Study of Premier International School, *Suleiman Abba Suleiman*, Premier International School, *Daniel O. Alamu*, Premier International School, *Mshelia S. Gana*, NASENI, *G. Hassan*, *R. Garba*, **Nigeria**

SESSION 2B

Construction and Demolition Wastes

Estimation of Construction Waste with Rectangular Prism and Pyramidal Shape Method in Urban Areas of Pakistan, *Jawad Rafi*, Al Khayarin International, Doha, *Mukaram Mushtaq*, University of Gujrat, Pakistan, *Tayyaba Noreen*, University of Gujrat, Pakistan, **Qatar**

Laboratory Investigations into Construction and Demolition Waste Recycling – Utilisation in Hot Mix Asphalt Concrete, *Samiullah Bhatti*, Sir Syed University of Engineering & Technology, **Pakistan**

Assessment of Human Health and Environmental Risks in Construction and Demolition Waste Use in the Czech Republic, *Anita Zavodska*, Barry University, *M. Zimová*, Charles University, *Libuse Benesova*, Charles University, **Czech Republic**

SESSION 2C
Environmental Assessment

Multivariate Analysis and Hydrochemical Assessment of Groundwater at Regina Landfill Site, *Conglian Pan*, University of Regina, *Kelvin T.W. Ng*, University of Regina, **Canada**

Environmental Impacts of Sandstone Quarrying at Keru, Jodhpur, Rajasthan, *Abhishek Singhal*, Indian Institute of Technology, Kharagpur, *Sudha Goel*, Indian Institute of Technology, Kharagpur, **India**

Sanitation Markets and Urban Climate Decisions Asymmetry: Lessons from Trend in CH₄ Emissions from Solid Waste Disposal Subsector in Rwandan Cities after Private Sector Involvement in Solid Waste Collection, *Pius Nishimwe*, Water for People, *Elisee Gashugi*, University of Rwanda, *Paulin Buregeya*, COPED Group, **Rwanda**

Numerical Modeling of Migration of Landfill Gas and Odors to Nearby Homes, *Ray Kapahi*, NCM Environmental Solution, *Jesse Levin*, NCM Environmental Solution, **USA**

From Process to Practice: Generating Sustainable Waste Streams for Fun and Profit, *Eileen Straughan*, Straughan Environmental, Inc., *Diana Gutierrez*, Straughan Environmental, Inc., *Christine Wysocki*, Straughan Environmental, Inc., **USA**

Modeling the Life Cycle Greenhouse Gas Emission Benefits of Sodium Bisulfate for Poultry Litter Treatment, *Matthew Franchetti*, The University of Toledo, *Somik Ghose*, The University of Toledo, **USA**

Health Hazards Associated with Residence around Open Dump Sites in an Urban City in Southwest Nigeria, *Olufemi Oludare Aluko*, Obafemi Awolowo University, *Toyin Hezekiah Obafemi*, Obafemi Awolowo University, *Jane Chiagoziem Obianjuwa*, Obafemi Awolowo University, *O.A. Obisanya*, *H.O. Odanye*, *A.O. Odeleye*, **Nigeria**

SESSION 2D
Recycling

Role of Informal Sector Recycling in Reduction of Greenhouse Gas Emission in Developing Country Cities: A Case Study in Hanoi, Vietnam, *ThaiHuyen Nguyen*, Hanoi Architectural University, *HoaThai Nguyen*, Ritsumeikan University, **Vietnam**

The Philosophical Foundation and Purposes of Recycling, *Laib Khemissa*, Larbii Ben M'hidi University, **Algeria**

Recycling Options to Treating Glass Waste; Economic and Environmental Effects: A Literature Review, *Obaidullah Nayan*, Dr. Mahbubur Rahman Mollah College, *Afzol Hossain*, Dr. Mahbubur Rahman Mollah College, **Bangladesh**

Single Stream is Not Always the Single Answer, *Walt Davenport*, MSW Consultants, LLC, *Joanne Shafer*, Centre County Recycling & Refuse Authority, **USA**

Impact of Solid Waste Recycling on Sustainable Construction of Infrastructure in Developing Nations, *Olufemi Oyedele*, Government of the State of Osun, **Nigeria**

Utilization of Post-Consumer Plastic Bottles in Construction, *Pranshoo Solanki*, Illinois State University, *Samikaran Bhattarai*, Illinois State University, **USA**

Indian Waste Regulations Amendments 2016, *Lakshmi Raghupathy*, TERI University, **India**

SESSION 2E
Case Studies 1

The State of Waste in Australia, *Mike Ritchie*, MRA Consulting Group, *Adam Johnson*, MRA Consulting Group, **Australia**

Urban Solid Waste Management in Techiman Municipality (Ghana), *Gloria Ametepey*, Zoomlion Ghana Limited (B/A), **Ghana**

Analytical Hierarchy Process Decision Model for Solid Waste Management Strategy in Yaounde - Cameroon, *Joel Sotamenou*, University of Yaounde II, **Cameroon**

Development of an Integrated Solid Waste Management System in Guatemala, *Sean O'Donnell*, Geosyntec Consultants, *Jeremy Morris*, Geosyntec Consultants, *David Espinoza*, Geosyntec Consultants, *Bill Gaffigan*, *Manuel Basterrechea*, *Javier Rojo*, **USA**

Municipal Solid Waste Management in the City of Polokwane: Current Situation, Problems and Challenges, *Mpho Godwin Morudu*, University of Johannesburg, *Isaac Tebogo Rampedi*, University of Johannesburg, **South Africa**

Best Practices of Community Based Solid Waste Management in Panga, Kirtipur, Kathmandu, Nepal, *Nabin Bikash Maharjan*, Blue Waste to Value, **Nepal**

The Role of Waste Segregation in Effective Management of Domestic Solid Wastes in Nairobi, Kenya, *Philip Nyongesa Wangia*, Kenyatta University, *Michael Koech*, Kenyatta University, **Kenya**

1:10 p.m. - 2:05 p.m.

Awards Luncheon

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

2:05 p.m. – 3:55 p.m.

Sessions 3

SESSION 3A

Special Session: Emerging Contaminants Found in Landfill Leachate

Introduction: *Ivan Cooper*, Civil & Environmental Consultants, Inc.

Regulatory and Litigation Updates, *Matthew Thurlow*, BakerHostetler

Perfluorinated Alkylated Substances PFAS, *Harry Behzadi*, SGS

Technology Panel:

Francis Boodoo – Purolite Ion Exchange

John Matthis – Calgon Carbon Corporation

Tony Powell - Photo-Cation Exchange

Steve Koenigsberg, CEC - ARC Technology

Wrap Up: *Russ Abel* – Sanborn Head, Risks

SESSION 3B
Waste Collection

A Method Development for Improving Efficiency of Solid Waste Collection System, *Dhvanidevi Jadeja*, Pandit Deendayal Petroleum University, *Dayashankar Kaul*, Pandit Deendayal Petroleum University, *Anurag Kandya*, Pandit Deendayal Petroleum University, **India**

Monopolistic Private Sector Involvement in Solid Waste Collection in Kigali, A Success Story or a Flog: Social, Economic and Environmental Outcome, *Pius Nishimwe*, Water for People, *Jaap Evers*, IHE Institute for Water Education, *Paulin Buregeya*, COPED Group, **Rwanda**

Customer Satisfaction of Solid Waste Collection Services: A Measure towards Effective Waste Management, *Alhassan Sulemana*, Kwame Nkrumah University of Science and Technology, *Emmanuel A. Donkor*, Kwame Nkrumah University of Science and Technology, *Kofi S. Boateng*, Zoomlion Ghana Limited, *Kodwo Miezah*, *George N. Rockson*, *Ebenezer O. Turkson*, *Franklin O. Akuffo*, *Roland Darko*, **Ghana**

Route Optimization for Municipal Solid Waste Collection in Sunyani, Ghana, *Alhassan Sulemana*, Kwame Nkrumah University of Science and Technology, *Emmanuel A. Donkor*, Kwame Nkrumah University of Science and Technology, *Eric K. Forkuo*, Kwame Nkrumah University of Science and Technology, *Sampson Oduro-Kwarteng*, **Ghana**

Incidence of Human Labor in Waste Collection, *Francesco Di Maria*, Dipartimento di Ingegneria - Università di Perugia, *Federico Sisani*, Dipartimento di Ingegneria - Università di Perugia, **Italy**

SESSION 3C
Agricultural and Food Wastes 1

Study of Slow Release of Urea Supported on Coconut and Straw Biochars, *Marco Antonio Gaya de Figueiredo*, Universidade do Estado do Rio de Janeiro, *Luana Ventura Bais*, Universidade do Estado do Rio de Janeiro, *Wallace Souza*, Universidade do Estado do Rio de Janeiro, *Fabio Antônio Cavalcante da Silva*, *Ana Paula Carvalho*, **Brasil**

Effects of Cassava Peels on Biogas Production, *Mohamed Ben Oumarou*, University of Maiduguri, **Nigeria**

Effect of Biochar Addition on H₂S Production in an Anaerobic Digester, *Abhinav Choudhury*, University of Maryland, College Park, *Stephanie Lansing*, University of Maryland, College Park, *Walter Mulbry*, USDA, **USA**

Enhanced Biogas Production from Alkali-Pretreatment Giant Reed as a Potential Wild Reproductive Crop, *Zainab Ziad Ismail*, University of Baghdad, *Nazik Adnan Noori*, University of Baghdad, **Iraq**

Studies on Organic Fertilizer as a Solid Waste from Arum Leaf Extract during Electricity Generation System, *Afzol Hossain*, Dr. Mahbubur Rahman Mollah College, *Kamrul Alam Khan*, Jagannath University, *Emran Quayum*, University of Dhaka, **Bangladesh**

Valorisation of Chicken Feather Barbs: Utilisation in Yarn Production and Technical Textile Application, *Tamrat Tesfaye Yimer*, UKZN, **South Africa**

Sensor Networks Based Household Bin Level Monitoring System, *Jino Ramson*, Vignan's Foundation for Science, Technology and Research, *Jackuline Moni*, Karunya Institute of Technology and Sciences, *Alfred Kirubaraj*, Karunya Institute of Technology and Sciences, *Ranjeet Kumar*, **India**

A Study on Functioning of the Dry Waste Collection Centers In Bangalore City, *Prakash Gowdra*, M.S. Ramaiah Institute of Technology, *Vivekanand Venkataraman*, M.S. Ramaiah Institute of Technology, *Judith Anthony*, PGDM, Great Lakes Institute of Management, *Mohammed Sharukh*, **India**

SESSION 3D ***Medical Wastes***

Medical Waste Management Practices in Healthcare Establishments in Northern Jordan: Medical Centers and Laboratories, *Fayez Abdulla*, Jordan University of Science & Technology, *Hani Abu Qdais*, Jordan University of Science & Technology, **Jordan**

A Review of Medical Waste Management: A Case Study of South Africa, *Foluke Comfort Olaniyi*, University of Venda, *Jason S. Ogola*, University of Venda, *Augustine K. Tugli*, University of Venda, **South Africa**

3:55 p.m. – 4:15 p.m.

Break

4:15 p.m. – 5:55 p.m.

Sessions 4

SESSION 4A ***Waste to Energy 1***

Combustion Characteristics of Selected Tropical Wood Residues in Relation to Their Particle Sizes, *Abdulkarim Baba Rabi*, University of Ilorin, *Olumuyiwa Ajani Lasode*, University of Ilorin, *Habeeb A. Ajimotokan*, University of Ilorin, *V.A. Afolayan*, **Nigeria**

Power/Water Solutions: Using Thermal Energy from CHP Plants to Treat Challenging Waste Waters, *Earl Jones*, Heartland Water Technology, Inc., *Ben Laurent*, Heartland Water Technology, Inc., **USA**

The Feasibility Study on Municipal Solid Waste to F-T Derived, *Wei Wu*, Northeastern University, *Yijie Zhong*, Northeastern University, *Gang Fan*, Northeastern University, **P.R. China**

Development of a Small Scale Incinerator for Electricity Production, *Mohamed Ben Oumarou*, University of Maiduguri, **Nigeria**

Co-Combustion of Solid Recovered Fuel as Sustainable Tool in an Advanced Waste Management System, *Eva Miller*, University of Stuttgart - IFK, *Aaron Fuller*, University of Stuttgart - IFK, *Jörg Maier*, University of Stuttgart - IFK, *Günter Scheffknecht*, *Thomas Glorius*, **Germany**

SESSION 4B

Integrated Management and Policy

Waste Management in Lake Tana Basin - Case of Rapidly Urbanizing Bahir Dar City, *Biruk Abate*, Bahir Dar Institute of Technology, Bahir Dar University, *Goraw Goshu*, Blue Nile Water Institute and College of Agriculture and Environmental Sciences, Bahir Dar University, **Ethiopia**

LCA towards Optimizing the Environmental Performance of ISWM in a Developing Context, *Amani Maalouf*, American University of Beirut, *Mutasem El-Fadel*, American University of Beirut, **Lebanon**

An Overview of Municipal Solid Waste Indicators: Towards the Efficiency, Efficacy, and Effectiveness, *Rafael Deus*, UNESP, *Rosane Battistelle*, UNESP, *Barbara Bezerra*, UNESP, *Karina Rabelo Ogasawara Vieira*, *Edvaldo José Scoton*, **Brazil**

Evaluation of an Integrated Municipal Solid Waste Plant: A Case Study of Sangli in the State of Maharashtra, Western India, *Priti Mastakar*, Gokhale Institute of Politics and Economics, *Sudhir Swarup*, Gokhale Institute of Politics and Economics, *Kakali Mukhopadhyay*, Gokhale Institute of Politics and Economics, **India**

Challenges for Implementing Public Private Partnership Scheme on Solid Waste to Energy in Indonesia, *Erwin Sondang Siagian*, Universitas Padjadjaran, *Asep Sumaryana*, Universitas Padjadjaran, *Ida Widianingsih*, Universitas Padjadjaran, *Heru Nurasa*, **Indonesia**

Integrated PET Bottle Life Cycle System: A Comparative Study of Nigeria, Sweden and Japan, *Nkonyeasua Kingsley Egun*, Greenspring Consulting, **Nigeria**

Effective Approach towards Sustainable Processing Technologies and Strategies for Solid Waste Management in India, *Ketan Shah*, Swachh Bharat Mission Gujarat, *Dhawani Shah*, SOCET, **India**

Policy Direction for Management of Waste Lithium Batteries in Electric Vehicles, *Ji Hye Jo*, Korea Environment Institute, **South Korea**

The Impact of the Evolving E-Waste Regulations on the Informal Recycling Sector, *Abubakar A. Suleiman*, NASENI, *Mshelia S. Gana*, NASENI, *M.S. Haruna*, NASENI, **Nigeria**

Policy Implications for Sustainable Consumption and Production in India, *Lakshmi Raghupathy*, TERI University, **India**

SESSION 4C

Shell Wastes

The Influence of Utilizing Seashell Waste Materials and Fly Ash on Binding Time for Geopolymer, *Ridho Bayuaji*, Institut Teknologi Sepuluh Nopember, *M. Sigit Darmawan*, Institut Teknologi Sepuluh Nopember, *Nur Ahmad Husin*, Institut Teknologi Sepuluh Nopember, *R. Buyung Anugraha*, *S. Subekti*, *S.E. Santoso*, **Indonesia**

Valorization of Chicken Eggshell Waste in the Obtainment of Calcium Titanate, *Clarisse Cardoso*, Universidade Estadual do Norte Fluminense, *José Nilson Holanda*, Universidade Estadual do Norte Fluminense, **Brazil**

Characterization of Natural Shell Used for Treatment of Heavy Metal, *Ohidul Alam*, East China University of Science and Technology, *Xiuchen Qiao*, East China University of Science and Technology, *Yuyan Gu*, East China University of Science and Technology, **P.R. China**

SESSION 4D

Ash Utilization

New Zeolite Catalyst from Waste Coal Ash for Bio-Diesel Synthesis, *Omotola Babajide*, Cape Peninsula University of Technology, *Roland Missengue*, AgriProtein, *Juvet Shabani*, Cape Peninsula University of Technology, **South Africa**

Zero Solid Waste for Fly Ash: Policies, Mind-Sets, Standardization, and Technologies, *Jinder Jow*, National Institute of Clean-and-Low-Carbon Energy, *Yang Dong*, National Institute of Clean-and-Low-Carbon Energy, *Ke Wang*, National Institute of Clean-and-Low-Carbon Energy, **China**

SESSION 4E

Innovative Technologies

Potential Constructed Technosols Eco-System Services, *Maha Deeb*, CUNY Advanced Science Research Center, *Peter Groffman*, CUNY Advanced Science Research Center, *Sara Perl Egendorf*, *Daniel Walsh*, *Tatiana Morin*, *Manuel Blouin*, *Geoffroy Séré*, **USA**

Physico-Chemical and Biological Characterization of Mixed Fruit Peels Waste, *Gajraj Singh Rajput*, Indian Institute of Technology, Kharagpur, *Sudha Goel*, Indian Institute of Technology, Kharagpur, **India**

Glycerol-Based Pretreatment of Solid Feedstock before Bioproducts (Succinic Acid) Production in a Biorefinery Concept, *Mariusz Kuglarz*, University of Bielsko-Biala, *Katarzyna Dąbkowska*, Warsaw University of Technology, **Poland**

Use of Nano-Silica from Rice Husk as a Drug Delivery Vehicle in Drug Delivery System, *Ryoko Sekifuji*, Toyama Prefectural University, *Masafumi Tateda*, Toyama Prefectural University, **Japan**

Optimization and Prediction of the Compressive Strength of Superplasticized Hair Fiber Reinforced Concrete Using Central Composite Design and Artificial Neural Network, *Manny Anthony Taguba*, National University, *Jan Michael Elbit*, National University, *Romel Carl Basada*, National University, *Keanu Patrick Orido*, *Epphram G. Ramos*, **Philippines**

Waste Management Efforts in SAIL Plants, *Sweta Sukul*, Steel Authority of India Limited, **India**

Recovering of Metals from the Surface of Wasted Printed Circuit Board by Alkaline Electrochemical Leaching and Stripping Foil, *Chenglong Zhang*, Shanghai Polytechnic University, *Feilong Zheng*, Shanghai Polytechnic University, *Jianfeng Bai*, Shanghai Polytechnic University, *Jingwei Wang*, *Wenyi Yuan*, *Weihua Gu*, **China**

Variability of Heavy Metals Contents in the Sewage Sludge from Three Sewage Treatment Plants, Kuwait, *Saleh Al-Muzaini*, Kuwait Institute For Scientific Research, **Kuwait**

6:00 p.m. – 7:00 p.m
Posters 1

6:30 p.m. – 7:30 p.m
Reception

POSTER SESSION 1

A Novel Design of a Solar-Assisted Accelerated Composting Unit, *Kurabachew Duba*, East Carolina University, *Praveen Malali*, East Carolina University, *Faete Filho*, East Carolina University, **USA**

Problem of Utilization of Municipal Solid Waste in the Republic of Uzbekistan in City Samarkand, *Shodi Kholikulov*, Samarkand State University, *Sindor Pardaev*, Samarkand Agricultural University, **Uzbekistan**

Redevelopment of Landfill Site Eysels, Turnhout, Belgium, *Bart Nevejans*, Aertssen Group, **Belgium**

Urban Solid Waste Management in Techiman Municipality (Ghana), *Gloria Ametepey*, Zoomlion Ghana Limited (B/A), **Ghana**

The Philosophical Foundation and Purposes of Recycling, *Laib Khemissa*, Larbi Ben M'hidi University, **Algeria**

Studies on Organic Fertilizer as a Solid Waste from Arum Leaf Extract during Electricity Generation System, *Afzol Hossain*, Dr. Mahbubur Rahman Mollah College, *Kamrul Alam Khan*, Jagannath University, *Emran Quayum*, University of Dhaka, **Bangladesh**

A Method Development for Improving Efficiency of Solid Waste Collection System, *Dhvanidevi Jadeja*, Pandit Deendayal Petroleum University, *Dayashankar Kaul*, Pandit Deendayal Petroleum University, *Anurag Kandya*, Pandit Deendayal Petroleum University, **India**

Recycling Options to Treating Glass Waste; Economic and Environmental Effects: A Literature Review, *Obaidullah Nayan*, Dr. Mahbubur Rahman Mollah College, *Afzol Hossain*, Dr. Mahbubur Rahman Mollah College, **Bangladesh**

Evaluation of Different Alternatives for the Use of Coffee Ground Waste, *Irma Robles*, CIDETEQ, *Luis A. Godinez*, CIDETEQ, **Mexico**

Flexible Energy Production through Combined Hydrogen and Methane Production at a Municipal Sewage Treatment Plant, *Marco Küppers*, University Duisburg-Essen, *Jens Schoth*, University Duisburg-Essen, *Ruth Brunstermann*, University Duisburg-Essen, **Germany**

The State of Waste in Australia, *Mike Ritchie*, MRA Consulting Group, *Adam Johnson*, MRA Consulting Group, **Australia**

The Role of Waste Segregation in Effective Management of Domestic Solid Wastes in Nairobi, Kenya, *Philip Nyongesa Wangia*, Kenyatta University, *Michael Koech*, Kenyatta University, **Kenya**

The Effect of Using Prefabricated Vertical Drains on Secondary Settlement, *Mohammad Al-Quraan*, Geosyntec Consultants, *Andrew Stalling*, Geosyntec Consultants, *David Espinoza*, Geosyntec Consultants, **USA**

The Role of Environmental Education and Awareness in Application of the 7R Approach of Sustainable Solid Waste Management in Nairobi County, Kenya, *Philip Nyongesa Wangia*, Kenyatta University, *Michael Koech*, Kenyatta University, **Kenya**

Sustainable Energy Generation through Wastewater: A Situation in the Urban City of Lagos, Nigeria, *Timothy Oluwagbenga Ajayi*, Ogun State Institute of Technology, **Nigeria**

Biodegradation of Slaughterhouse Waste by a Two Stage Digester System, *Reema Singh*, Bhabha Atomic Research Centre, *Sunil Sethy*, Bhabha Atomic Research Centre, *Sukhendu Ghosh*, Bhabha Atomic Research Centre, **India**

Sensor Networks Based Household Bin Level Monitoring System, *Jino Ramson*, Vignan's Foundation for Science, Technology and Research, *Jackuline Moni*, Karunya Institute of Technology and Sciences, *Alfred Kirubaraj*, Karunya Institute of Technology and Sciences, *Ranjeet Kumar*, **India**

Best Practices of Community Based Solid Waste Management in Panga, Kirtipur, Kathmandu, Nepal, *Nabin Bikash Maharjan*, Blue Waste to Value, **Nepal**

Effect of the Incorporation of Biomass Wastes on the Properties of Fired Clay Bricks, *Gisela Pelozo*, Facultad Regional San Nicolás - Universidad Tecnológica Nacional, *Nancy Quaranta*, Facultad Regional San Nicolás - Universidad Tecnológica Nacional, *Marta Caligaris*, Facultad Regional San Nicolás - Universidad Tecnológica Nacional, *Melisa Romano*, *Adrián Cristóbal*, **Argentina**

Life Cycle Assessment for High Solids Anaerobic Digestion of Food Waste, Yard Waste, and Biosolids, *Luiza Stolte Bezerra Lisboa Oliveira*, University of South Florida, *Deborah Stolte Bezerra Lisboa Oliveira*, University of South Florida, *Eunyoung Lee*, University of South Florida, *Eduardo Jimenez*, *Qiong Zhang*, *Sarina Ergas*, **USA**

Utilization of Selected Fungal Strains to Treat Old Landfill Leachate, *Mofizul Islam*, University of Manitoba, *Qiuyan Yuan*, University of Manitoba, **Canada**

Organic Wastes Management from Low-Cost Meals: The Educator Role of the Universities, *Liseane Thives*, Federal University of Santa Catarina (UFSC), *Gabriel Dibe Andrade*, *Ricardo Henrique Nunes*, *Pâmela Betiatto*, *Mariana Fornara Nohatto*, *Cláudio Cesar Zimmermann*, **Brasil**

Emerging Contaminants: Perfluorinated Alkylated Substances PFAS, *Harry Behzadi*, **SGS, USA**

TUESDAY, MARCH 13

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. - 10:20 a.m.
Sessions 5

SESSION 5A

Use of Wastes in Construction 2

Effect of Partial Replacement of Slag and Nano Silica Infused Slag on Properties of Concrete, *Prakash Munnoli*, SDM College of Engineering and Technology, *Tejashwini Pattar*, SDM College of Engineering and Technology, *Jyoti Garawad*, SDM College of Engineering and Technology, **India**

Innovative PORMA-BLOCs (Block Local Organic Composites) from Synthetic and Musa Family Biomass Wastes, *Karlu Angelo Catangui*, Bicol University College of Engineering, *Mercenario Legaspi*, Bicol University College of Engineering, *Amelia Gonzales*, Bicol University College of Engineering, *Arnulfo Malinis*, Bicol University, **Philippines**

Risks and Opportunities of RDF Fuel Replacement in Cement Kilns, *Hanan Hassan El-Sersy*, Cairo University, *Mai Mohamed Kamal Fouad*, Cairo University, *Shakinaz El Sheltawy*, Cairo University, **Egypt**

Investigation on Workability and Strength of Geo-Polymer Concrete, *Najeb Sawsi*, Wayne State University, *Hwai Wu*, Wayne State University, **USA**

Concrete a Potential Source to Use Waste Materials?, *Amarnath Yerramala*, SRIT, *T. Naresh Kumar*, AITS, **India**

Waste Material Recovery Rates, Incomes, and Challenges Facing Informal Waste Reclaimers in the Ekurhuleni Metropolitan Municipality in the Gauteng Province of South Africa - An Exploratory Study, *Isaac Tebogo Rampedi*, University of Johannesburg, *Sibongile Euphemia Gumbi*, University of South Africa, **South Africa**

The Social Impact of Informal Waste Sector in Development: Analysis of Gender Differences on Lagos Dumpsite, *Adeola Abiodun Obadina*, Loughborough University, *Julie Fisher*, Loughborough University, *Mohammed Sohail Khan*, Loughborough University, **United Kingdom**

Impending Threat of Electronic Waste in Nigeria: Addressing the Challenge through Sustainable Control Measures, *Providence Nwachukwu Akpa*, QHSE Services Provyda, **Nigeria**

The Involvement of Local Informal Sector to Reduce Solid Waste in Landfill Whilst Increasing Local Income Generation, *Mochamad Arief Budihardjo*, Diponegoro University, *Indah Fajarini Sri Wahyuningrum*, Semarang State University, **Indonesia**

A Study of Community Participation in Solid Waste Management in Kathmandu Metropolitan City (A Study of the Status of Half-Developing Country), *Indra Prasad Dahal*, Lincoln College, **Nepal**

Mechanical Properties of Recycled Aggregate Concrete in Saline and Sulphate Environment, *Rahul Meena*, IIT Kharagpur, *Sudhirkumar Barai*, IIT Kharagpur, *Subhasis Pradhan*, IIT Kharagpur, **India**

SESSION 5B *Contaminated Sites*

Comparative Study of Environmental Parameters at Two Construction Sites under Controlled and Uncontrolled Conditions, *Khalid Iqbal*, University of Gujrat, *Muhammad Waseem Mumtaz*, University of Gujrat, *Muhammad Sohaib Ejaz*, University of Gujrat, **Pakistan**

Impact of Soil Texture on Contaminants around Degraded Waste Dumpsite: Case of College Road, Kaduna North-Nigeria, *Ahmed Mohammed*, Federal College of Education (Technical), *Sadiq Umar*, Ahmadu Bello University, *Zakari Ibrahim*, Ahmadu Bello University, **Nigeria**

The Role of Lipopeptide Biosurfactant on Microbial Remediation of Aged Polycyclic Aromatic Hydrocarbons (PAHs)-Contaminated Soil, *Fisseha Andualet Bezza*, University of Pretoria, *Evans MN Chirwa*, University of Pretoria, **South Africa**

Bioremediation of Polycyclic Aromatic Hydrocarbon Contaminated Soil by a Microbial Consortium through Supplementation of Biosurfactant Produced by *Pseudomonas aeruginosa* Strain, *Fisseha Andualet Bezza*, University of Pretoria, *Evans MN Chirwa*, University of Pretoria, **South Africa**

Prediction of 1,4-Dioxane Contamination Distribution during Countermeasures at an Illegal Dumping Site by Numerical Simulation, *Kazuei Ishii*, Hokkaido University, *Atsushi Fujiyama*, Hokkaido University, *Masahiro Sato*, Hokkaido University, *Toru Furuichi*, **Japan**

SESSION 5C *Mining Wastes*

Evaluation of Economic Mineral in Gold Tailings Dams: A Case Study of the Louis Moore Tailings Dam, Limpopo Province, South Africa, *Ndivhuwo Nemapate*, University of Venda, *J.S. Ogola*, *G.E Ekosse*, **South Africa**

Mine Waste as a Resource: A Case Study of South Africa, *Humbulani Rejune Mundalamo*, University of Venda, *Jason Sammuuel Ogola*, University of Venda, **South Africa**

Coal Mine Refuse and Power Generation in Pennsylvania, *Andrew Rose*, University of Pittsburgh at Johnstown, **USA**

Resource Efficiency through Recycling Mining Wastes, *Lakshmi Raghupathy*, TERI University, **India**

SESSION 5D

Composting and Biological Treatment 2

Utilization of Wastes after Biodiesel Production for Innovative Pretreatment of Lignocellulosic Materials, *Mariusz Kuglarz*, University of Bielsko-Biala, *Katarzyna Dąbkowska*, Warsaw University of Technology, *Monika Rom*, University of Bielsko-Biala, *Klaudiusz Grübel*, **Poland**

Modification of Sandy Soil Biological and Physicochemical Properties Treated with Green Compost, Composted Sludge and Compost with Bio-Fertilizer, *Munawwar Ali Khan*, Zayed University, *Wadha Mubarak Alketbi*, Zayed University, *Henda Mahmoudi*, International Center for Biosaline Agriculture, *James P. Terry*, *Abdullah Alshankiti*, **United Arab Emirates**

A Feasibility Study on Treatment of Solid Waste Generated from Religious Places Using Vermicomposting Technique, *Nirav Shah*, The Maharaja Sayajirao University of Baroda, *Ketan Patel*, **India**

10:20 a.m. – 10:50 a.m.

Break

10:50 a.m. – 12:35 p.m.

Sessions 6

SESSION 6A

Agricultural and Food Wastes 2

Preparation of Furfural from Agricultural Wastes Active Ingredient in the Production of Nematicides, *Oluwatoyin Fabiyi*, University of Ilorin, *Gabriel Olatunji*, University of Ilorin, *Olubunmi Atolani*, University of Ilorin, *O. Akande*, **Nigeria**

Environmental Impact of Poultry Waste Dumping on Soil, Water and Health Status of Poultry Attendants, *Folake Sodique*, Tai Solarin University of Education, *Adejoke Mako*, Tai Solarin University of Education, *Victor Akinwande*, Tai Solarin University of Education, *Oluwasayo Kehinde Moyib*, **Nigeria**

Biotechnology for the Production of Humus Rich Compost from Lignocellulosic Substrates, *Niharendu Saha*, Bidhan Chandra Krishi Viswavidyalaya, *Nilkanta Mukherjee*, Bidhan Chandra Krishi Viswavidyalaya, *Kalyan Bhattacharaya*, Bidhan Chandra Krishi Viswavidyalaya, **India**

The Brazilian Experience in the Valorization of Agro-Livestock By-Products and Production of Biofertilizers, *Marisa S. Borges*, Federal University of Parana, *Thiago Gonzales*, CIBIOGAS, *Douglas Santos*, INPI, **Brazil**

Biodegradation of Slaughterhouse Waste by a Two Stage Digester System, *Reema Singh*, Bhabha Atomic Research Centre, *Sunil Sethy*, Bhabha Atomic Research Centre, *Sukhendu Ghosh*, Bhabha Atomic Research Centre, **India**

Anaerobic Process Performance Treating Swine Wastewater in Full Scale, *Woong Kim*, Kyungpook National University, **Republic of Korea**

Evaluation of Different Alternatives for the Use of Coffee Ground Waste, *Irma Robles*, CIDETEQ, *Luis A. Godinez*, CIDETEQ, **Mexico**

The Feasibility of Fruit and Vegetable Waste for Methane Production by Using Different Substrate to Inoculum Ratios at Hyderabad, Sindh, Pakistan, *Korai Muhammad Safar*, IEEM, MUET, *Mahar Rasool Bux*, US-Pakistan Center for Advance Studies in Water (US-PCASW), Mehran UET, *Uqaili Muhammad Aslam*, Mehran UET, **Pakistan**

King Bhumibol's Royally Initiative Nature-by-Nature Process for Activating Digestion Period in Municipal Garbage Composting, *Kasem Chunkao*, Kasetsart University, *Thanit Pattamapitoon*, Kasetsart University, *Chulabut Chanthasoon*, The King's Royally Initiated Laem Phak Bia Environmental Research and Development Project, Chaipattana Foundation, *Surat Bualert*, *Aphichaya Taychitkunanon*, *Narumon Vongsawan*, *Sakonwan Mokatip*, **Thailand**

Phenolic Aqueous Solution Treatment Using Crude Enzyme Peroxidases from Waste Cabbage (*Brassica oleracea capitata* var. *alba* L.) Leaves, *Allan Alzona*, National University, *Joanna Clarisse Velasco*, National University, *Manny Anthony Taguba*, National University, *Thea Rodriguez*, *Mary Rose De Leon*, *Josh Evans Cariño*, *Lerrie Anne Valeriano*, *Virginia Rocabo*, **Philippines**

Potential of Campus Food Waste for Biodigestion or Direct Combustion, *Patrick Caton*, US Naval Academy, *Scotty Davids*, US Naval Academy (Formerly), **USA**

Organic Wastes Management from Low-Cost Meals: The Educator Role of the Universities, *Liseane Thives*, Federal University of Santa Catarina (UFSC), *Gabriel Dibe Andrade*, *Ricardo Henrique Nunes*, *Pâmela Betiatto*, *Mariana Fornara Nohatto*, *Cláudio Cesar Zimmermann*, **Brasil**

SESSION 6B

Landfill 2

Site Characterization and Evaluation for Siting of a Municipal Solid Waste Landfill in Nigeria's Federal Capital Territory (FCT), *Olusegun Ige*, University of Ilorin, *Olufemi Ogunsanwo*, University of Ilorin, *Inyang Hilary*, Global Education and Infrastructure Services (GEIS), **Nigeria**

Analysis on Potentials of Waste to Energy by Landfill Mining and Resource Recovery in Korea, *Sora Yi*, Korea Environment Institute, *YoungJoon Rhee*, Korea Environment Institute, **Korea**

Waste Characterisation and Geographic Information System Mapping of Recyclables at Designated Dumpsites in Ibadan, Nigeria, *James Adetokunbo Abegunrin*, University of Ibadan, *Godson R.E.E. Ana*, University of Nairobi, *Taiwo Babatunde Hammed*, University of Ibadan, **Nigeria**

Status of Solid Waste Landfill in Benin Metropolis, Nigeria, *Dennis Iyeke Igbinomwanhia*, University of Benin, *Ohikhokhai Gift Aizebeoje*, University of Benin, *Osaghale Andrew Ehizogie*, University of Benin, **Nigeria**

Activated Sludge Bioaugmentation: A New Boost for Hexavalent Chromium Tolerance in Air Cathode MFCs, *Soumya El Abed*, University Sidi Mohamed Ben Abdellah, *Alae El Abed*, University Sidi Mohamed Ben Abdellah/ Faculty of Sciences and Technics/FEZ, *Loubna Ezziat*, University Sidi Mohamed Ben Abdellah, *Saad Ibnsouda*, **Morocco**

Multivariate Factor Analysis as a Tool for Evaluation of Complex Groundwater Datasets for Waste Management Facilities, *Wayne Pearce*, SCS Engineers, **USA**

SESSION 6C ***Sludge Management***

Moving towards Organic Farming Utilising Sewage, *Neha Shukla*, Pandit Deendayal Petroleum University, *Anurag Kandya*, Pandit Deendayal Petroleum University, **India**

Sewage Sludge Treated by Pyrolysis to Be Used as an Adsorbent, *Luciane Lemos do Prado*, Parana Federal University, *Vander de Freitas Melo*, Parana Federal University, *Maria Cristina Borba Braga*, Parana Federal University, *Edson Costa Jr.*, **Brazil**

Characterization of a Graphite-Rich Sludge Generated from the Treatment of Forging Wastewaters and Evaluation of Its Energetic Potential, *Renan Thiesen*, Universidade Federal do Rio Grande do Sul, *Viviana Reckziegel*, Universidade Federal do Rio Grande do Sul, *Ivo Schneider*, Universidade Federal do Rio Grande do Sul, *Carolina Marques Rodrigues*, **Brazil**

SESSION 6D ***Special Wastes***

Cigarette Butt as Non-Biodegradable Wastes: Cause of Environmental Concern, *Shamim Ahsan*, Metropolitan State University of Denver, **USA**

Environmental Friendlier Magnesium Fuel from Liquid Waste Bittern, *Rania Ramadan*, National Research Centre, *Marwa Saied Shalaby*, National Research Centre, *Shakinaz Ali El-Sherbiny*, Cairo University, *Hanem Abdel Rahman Sibak*, **Egypt**

POSTER SESSION 2

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

Utilization of Coal Bottom Ash as Aggregate in Clayey Mixtures, *Miguel Unsen*, Facultad Regional San Nicolás - Universidad Tecnológica Nacional, *Gisela Pelozo*, Facultad Regional San Nicolás - Universidad Tecnológica Nacional, *Marta Caligaris*, Facultad Regional San Nicolás - Universidad Tecnológica Nacional, *Nancy Quaranta*, **Argentina**

Pyrite Concentration from Coal Waste and Hydrometallurgical Production of a Ferric Sulfate Coagulant – A Study in a Pilot Plant, *Renan Thiesen*, Universidade Federal do Rio Grande do Sul, *Jessica Weiler*, Universidade Federal do Rio Grande do Sul, *Ivo Schneider*, Universidade Federal do Rio Grande do Sul, *Angéli Viviani Colling*, **Brazil**

Waste Management for Soil-Like Substrate Production and Growth Evaluation of Different Plant Species in Sequence, *Jéssica Weiler*, Universidade Federal do Rio Grande do Sul, *Beatriz Vasquez*, Universidade Federal do Rio Grande do Sul, *Ivo Schneider*, Universidade Federal do Rio Grande do Sul, **Brazil**

The Use of Municipal Tree Pruning and Bamboo Wastes in Bricks Production, *Barbara Bezerra*, UNESP, *Manuel Silva*, UNESP, *Rosane Battistelle*, UNESP, *Paulo Roberto O. Carvalho*, **Brazil**

Coal Mine Refuse and Power Generation in Pennsylvania, *Andrew Rose*, University of Pittsburgh at Johnstown, **USA**

An Economic, Technical and Environmental Feasibility Study for Slurry Injection for Biosolids Management in the Dallas Fort Worth Metroplex, *Yashesh Panchal*, Advantek Waste Management Services, *Ibrahim Mohamed*, Advantek Waste Management Services, *Omar Abou-Sayed*, Advantek Waste Management Services, *Nihal Mounir*, **USA**

Effects of Chemical Pre-Treatment on Solubilization of Organic Material of Sewage Sludge, *Fernanda Patricio do Monte*, UEPB, *Beatriz Susana Ovruski de Ceballos*, UEPB, *Wilton Silva Lopes*, UEPB, **Brazil**

Exploring the Potentialities of Waste Plant Materials for the Production of Gold Nanoparticles and Multi-Metallic Composite Particles and Its Application in Wastewater Treatment, *Wubshet Belay Abagero*, Coca-Cola (East Africa Bottling Share Company), *Clara Costa Maria*, University of Algarve, *Anahi Dandlen*, CCMAR, **Ethiopia**

The Social Impact of Informal Waste Sector in Development: Analysis of Gender Differences on Lagos Dumpsite, *Adeola Abiodun Obadina*, Loughborough University, *Julie Fisher*, Loughborough University, *Mohammed Sohail Khan*, Loughborough University, **United Kingdom**

New Zeolite Catalyst from Waste Coal Ash for Bio-Diesel Synthesis, *Omotola Babajide*, Cape Peninsula University of Technology, *Roland Missengue*, AgriProtein, *Juvet Shabani*, Cape Peninsula University of Technology, **South Africa**

Policy Implications for Sustainable Consumption and Production in India, *Lakshmi Raghupathy*, TERI University, **India**

1:35 p.m. – 2:35 p.m.

Luncheon

2:35 p.m. – 4:25 p.m.

Sessions 7

SESSION 7A

Sludge and Wastewater Management

An Economic, Technical and Environmental Feasibility Study for Slurry Injection for Biosolids Management in the Dallas Fort Worth Metroplex, *Yashesh Panchal*, Advantek Waste Management Services, *Ibrahim Mohamed*, Advantek Waste Management Services, *Omar Abou-Sayed*, Advantek Waste Management Services, *Nihal Mounir*, **USA**

Biosolids "Value Chain Optimization", *Zia Qureshi*, Schneider Electric, *Rao Chitikela*, Private Consulting, *David Smith*, Schneider Electric, *Stan Chilson*, **USA**

Feasibility of Sewage Water Treatment in Skaka City Using Up-Flow Anaerobic Sludge Blanket (UASB) Reactor, *Abdalla Zakey Albahrawy*, Aljouf University, *Mohamed El-Khateeb*, Aljouf University, *Maher Al-Enazi*, Sattam bin Abdulaziz University, **Saudi Arabia**

Applicable Granule Sludge from Wastewater Treatment Process of Cassava Starch Factory for Energy Generating and Construction Materials, *Noppawan Semvimol*, Kasetsart University, *Kasem Chunkao*, Kasetsart University, *Surat Bualert*, Kasetsart University, *Siwanat Thaipakdee*, *Chulabut Chanthasoon*, *Donyarat Subwongrod*, **Thailand**

Utilization of Community Wastewater and Sewage Sludge for Economic Cropping in Phetchaburi Province, Thailand, *Onanong Phewnil*, Kasetsart University, *Noppawan Semvimol*, Kasetsart University, *Watcharapong Wararam*, Kasetsart University, *Kittichai Duangmal*, *Nawee Chanwong*, *Pavin Wichittrakarn*, *Worakai Usa*, *Nontaporn Prasertkul*, *Wiroon Sumleeraj*, **Thailand**

Multidrug Resistance Klebsiella Species from Sewage Water in Ibadan, Nigeria, *Felicia.C. Adesina*, Lead City University, *Adejoke A. Mako*, Tai Solarin University of Education, *Oluwanike Abiola-Olagunju*, Lead City University, *Omolola A. Oluboyede*, **Nigeria**

Lighting up the Cities with Garbage: A Study of Electricity Production In Ghazipur Landfill Site, Delhi, India, *Jag Mohan*, Aditi Mahavidyalaya, University of Delhi, *Kartikeya Rastogi*, Manipal Institute of Technology, Karnataka, **India**

SESSION 7B

Waste to Energy 2

A New Approach in Dioxins and Furans Emissions by Accumulation of Precursor Compounds at Incinerators Post Fire Zone, *Marcelo Pestana Vieira*, Cetrel S.A., **Brazil**

Identification of Waste Potential and Location(s) for Waste-to-Value-Added Facility to Generate Heat and Electricity in the Province of Alberta, *Prashant Patel*, University of Alberta, *Mahdi Vaezi*, University of Alberta, *Amit Kumar*, University of Alberta, **Canada**

SESSION 7C
Research Advances

Circular Economy within Wind Energy Sector, *Spyridoula Karavida*, Czech University of Life Sciences, **Czech Republic**

Solid Waste Management by Chemical and Biochemical Treatment, *Ashok Kumar Jha*, T.M. Bhagalpur University, **India**

A Comprehensive Characterization of Plastic Waste and Effect of UV Radiation on Bacterial Breakdown of LDPE, *Ved Prakash Ranjan*, Indian Institute of Technology, Kharagpur, *Sudha Goel*, Indian Institute of Technology, Kharagpur, **India**

Mitigation of Acid Mine Drainage Using Green Liquor Dregs from the South African Kraft Mills, *Keolebogile Revelation Sebogodi*, University of KwaZulu-Natal, *Jonas Johakimu*, Council for Scientific and Industrial Research, *Bishop Bruce Sithole*, Council for Scientific and Industrial Research, **South Africa**

Pyrolysis of MSW for Biochar Production and Its Dioxin Distribution, *Zhiguang Yang*, Henan University of Urban Construction, *Xiaozhen Liu*, Henan University of Urban Construction, *Hongxun Zhang*, University of Chinese Academy of Sciences, **China**

Recovery of Neodymium from Waste Permanent Magnets by Solvent Extraction and Supported Liquid Membrane, *Achmad Chusnun Niam*, Chung Yuan Christian University, *Yi-Hsien Liu*, Chung Yuan Christian University, *Sheng-Jie You*, Chung Yuan Christian University, *Ya-Fen Wang*, **Taiwan**

SESSION 7D
Case Studies 2

Development of a Sustainable Municipal Solid Waste Management for an Urban Area: Case Study from a Developing Country, *Anil Kumar Gupta*, IIT Kharagpur, *Venkata Sai Praneeth Doranadula*, IIT Kharagpur, *Brajesh Dubey*, IIT Kharagpur, *Arundhuti Devi*, *Suravi Kalita*, *Khanindra Sharma*, **India**

Eco-Industrial Parks for Developing Economies, *Lakshmi Raghupathy*, TERI University, **India**

Material Flow in Informal Sectors – Case Studies from India, *Lakshmi Raghupathy*, TERI University, **India**

5:00 p.m. – 6:00 p.m.
Closing Reception

WEDNESDAY MARCH 14

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)

Field Trips to posted soon.