

# The Thirty-Sixth International Conference on Solid Waste Technology and Management

**Virtual**

**March 14 – March 16, 2021**

## AGENDA


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- Chukwu Onu, Southern University A & M College, **USA**
- Dr. Lakshmi Raghupathy, TERI School of Advanced Studies (TERI-SAS), **India**

# DETAILED AGENDA

**All times are USA Eastern Time (GMT -4)**

**SUNDAY, MARCH 14**

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

Conference check-in and registration

**MONDAY, MARCH 15**

8:00 – 10:00

Welcome and Opening Plenary

10:00 – 12:00

**Sessions 1**

**SESSION 1A**

***Sustainable Solid Waste Management***

Assessment of Impacts of Municipal Solid Waste on Soil Properties Using Geophysical and Physicochemical Methods at Ajakangba Refuse Dumpsite, Ibadan Southwestern, Nigeria, *Aderemi A. Alabi*, Federal University of Agriculture, Abeokuta, Nigeria, *Oluwaseun Olurin*, Federal University of Agriculture, Abeokuta, Nigeria, *Abiola S. Ogungbe*, Lagos State University, Lagos, Nigeria, *A. O. Adewale*, *V. Makinde*, *O. P. Olulana* and *D.S. Williams*, **Nigeria**

Review of GHG's Contribution to Climate Change from Waste Management Practices and Mitigation Opportunities., *Shamim Ahsan*, Metropolitan State University of Denver, **United States**

Environmentally Sustainable Municipal Solid Waste Management-A Case Study of Kolhapur, India, *Shraddha Bhilatiya*, KIT's College of Engineering, Kolhapur., *Akshey Bhargava*, Rajasthan Pollution Control Board, CEPT University, India, *Pratiksha Nalawade*, KIT's College of Engineering, Kolhapur., *Rugved Kulkarni*, **India**

Pollution. Bane to Boon Conversion of Wastes into Utility Products, *Valmiki Rangachar Sreenivasa*, Independent, **India**

**SESSION 1B**

***Agricultural and Food Wastes***

Study of the Technical and Economic Feasibility of Using Biogas Energy for Anaerobic

Digestion of Pig Manure with Magnetite Addition in Brazil, *Maxi Estefany Huamán Córdova*, Federal University of Itajubá (UNIFEI), *Hellen Luisa de Castro e Silva*, Federal University of Itajubá (UNIFEI), *Regina Mambeli Barros*, Federal University of Itajubá (UNIFEI), *Electo Eduardo Silva Lora*, *Geraldo Lúcio Tiago Filho*, *Ivan Felipe Silva dos Santos*, **Brazil**

Statistical Study of the Effect of Organic Amendments Based on Agro-Food Co-Products on the Physico-Chemical Properties of Moroccan Soils, *Imane Mehdaoui*, Sidi Mohammed ben Abdellah University, *Sanae Jennan*, Sidi Mohammed ben Abdellah University, *Zineb Majbar*, Sidi Mohammed Ben Abdellah university, *Ben Abbou Mohamemd*, *El haji Mounia*, *Taleb Mustapha*, *Rais Zakia*, **Morocco**

On-site Aerobic Biodegradation of Food Waste: Analysis and Applications of Aerobic Digesters, *Rachel Burch*, University of Delaware, *Savannah Sipes*, Duffield Associates, *Daniel Cha*, University of Delaware, *Michael Chajes*, **USA**

Biolipid Production by the Oleaginous Yeast Rhodosporidium Toruloides Using Apple Pomace as a Primary Carbon Source, *Arda Tuhanioglu*, Middle East Technical University, *Deniz Çekmecelioglu*, Middle East Technical University, **Türkiye**

Steam Explosion of Citrus Juice Processing Residues for Recovery of Valuable Compounds, *Christina Dorado*, USDA-ARS, *Randall G. Cameron*, USDA-ARS, *John A. Manthey*, USDA-ARS, *Kyle L. Ferguson*, **U.S.A.**

## **SESSION 1C**

### ***Recycling 1***

A Review of the Multiple-Criteria Decision-Making Approaches Applied to Waste Electrical and Electronic Equipment (WEEE), *Samuele Marinello*, Modena and Reggio Emilia University, *Rita Gamberini*, Modena and Reggio Emilia University, *Francesco Lolli*, Modena and Reggio Emilia University **Italia**

A User-Friendly Model to Calculate Cost Effectiveness of Single and Dual Stream Recycling, *Griffin Walker*, Stony Brook University, *David Tonjes*, Stony Brook University, *Elizabeth Hewitt*, Stony Brook University, *Krista Thyberg*, *Nicholas Alberto*, *Sandra Torres Vera*, **United States**

Evaluation of Plastic Collection, Disposal and Recycling in Brazil, *Liseane Padilha Thives*, Federal University of Santa Catarina (UFSC), *Enedir Ghisi*, Federal University of Santa Catarina (UFSC), *João Francisco Thives da Luz Fontes*, Federal University os Santa Catarina **Brazil**

Recycle My Battery, *Sri Nihal Tammana*, Recycle My Battery, *Sri Nihal*, **US**

12:00-14:00  
**SESSION 2**  
Poster Session 1

Microwave-Assisted Hydrothermal Synthesis of Zeolite Membrane from Coal Fly Ash for Wastewater Treatment Application, *Ozioma Nwachukwu*, Southern University and A&M College, *Chukwu Onu*, Southern University and A&M College, **United States**

Improving Solid Waste Management Practices in Primary Schools in Ibadan, Nigeria, *Adekunle Suraju Lateef*, University of Ibadan, *Chidinma Rosemary Uzomba Babatunde Taiwo Hammed*, University of Ibadan, *Elijah A. Akintunde*, **Nigeria**

Current Status and Challenges of Electronic Waste Management in India, *Sabeela Fatima*, Aligarh Muslim University, **India**

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

Recycle My Battery, *Sri Nihal Tammana*, Recycle My Battery, *Sri Nihal*, **US**

Evaluation on the Classification Effect of Residential Domestic Waste in Shapingba District, Chongqing City, *Zhi Peng Yu*, Chongqing University, *Lu Yu*, Chongqing University, *Tang Xinru*, *Jiang Xinyan*, *Hu Yuanhao*, *Deng Shanshan*, *He Qiao*, *Zhang Qixuan*, *Fu Xin*, *Oumi Tijiang*, *Ding Sicheng*, *Zeng Xiaolana*, **China**

Modeling Turbulence in Landfill Gas Flow: Ingress into a Horizontal Well, *Abhishek Baral*, Thompson Rivers University, *Yana Nec*, Thompson Rivers University, **Canada**

Analysis on the Influencing Factors of the Classification Effect of Urban Residential Domestic Waste—A Case Study in Glen Ridge City, New Jersey, *Sicheng Ding*, George School, *Zhipeng Yu*, Chongqing University, *Lu Yu*, Chongqing University, *Tang Xinru*, *Jiang Xinyan*, *Hu Yuanhao*, *Deng Shanshan*, *He Qiao*, *Zhang Qixuan*, *Fu Xin*, *Oumi Tijiang*, *Zeng Xiaolan*, **United States**

The Cost of Logistics in Waste to Materials and Energy Systems, *Gamini Mendis*, Penn State Behrend, *Justin Richter*, Penn State University, *Alicyn Rhoades*, Penn State Behrend **USA**

Characterization of PAHs, Dioxins, and VOCs as Result of Garbage Burning in Rural Arizona, *Emmanuel Gonzalez Figueroa*, University of Arizona, *Amanda Bates*, University of Arizona, *Steve Hadeed*, University of Arizona, *Marty Lindsey*, *Mary Kay O'Rourke*, **United States**

A Qualitative Approach to Evaluating National Waste Trends: A Meta-Analysis of EPA Reports 1975-2018, *Matthew Johnston*, Stony Brook University, *Elizabeth Hewitt*, Stony Brook University, *Krista Thyberg*, Stony Brook University, *David Tonjes*, **United States**

14:00-16:00  
**Sessions 3**

**SESSION 3A**  
***Case Studies 1***

The Circular Economy and Health Protection in the Czech Republic, *Magdalena Zimová*, National Institute of Public Health, *Anita Závodská*, Barry University, **Czech Republic**

Sustainable Solid Waste Management in Nigeria, *Olufemi Oyedele*, Fame Oyster & Co. Nigeria, **Nigeria**

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

Waste Collection & Management, *Margaret Beyslow*, Environmental Protection Agency of Liberia, *Lucia Paye-Layleh*, Environment Protection Agency, *Andyll Quamie*, Environment Protection Agency, *Moretha Browne*, **Liberia**

Ecological Sanitation for Sustainable Human Waste Management and Rural Food Security in Bangladesh, *Masudul Hoq Chowdhury*, Bangladesh Academy for Rural Development, **Bangladesh**

**SESSION 3B**  
***Landfill***

State-of Art Reappraisal of Amended Clay Liners in Landfill, *Aswathy CM*, National Institute of Technology Karnataka, *Sunil B.M*, National Institute of Technology Karnataka, **India**

Prediction of Leachate Quantity and Quality from a Landfill Site in a Snow Area by the Long Short-Term Memory Model, *Kazuei Ishii*, Hokkaido University, *Masahiro Sato*, Hokkaido University, *Satoru Ochiai*, Hokkaido University **Japan**

How Chlorides Affect the Mobility of Radionuclides in a Waste Repository and the Derivation of an Adequate Acceptance Criterium, *Erik Coppens*, ONDRAF/NIRAS, **Belgium**

Municipal Solid Waste Management by Engineered Landfills in Indian Smart Cities, *Deepak Singh Baghel*, Academy of Scientific and Innovative Research, *Lakmikanthan P.*, Csir-National Environmental Engineering Research Institute, *Sunil Kumar*, Csir-National Environmental Engineering Research Institute **India**

**SESSION 3C**  
***Use of Wastes in Construction 1***

Effect of crushed glass waste on compressive strength of concrete, *Prakash M Munnoli*, S.D.M College of Engineering & Technology/Visvesvaraya Technological University, *Ishan Soodan*,

S.D.M College of Engineering & Technology/Visvesvaraya Technological University, *Kumar Ashish*, S.D.M College of Engineering & Technology/Visvesvaraya Technological University, *Kumar Aman Sagar, KA Rahul*, **India**

Dynamic motion of retaining wall with TDA backfill under earthquakes, *IL-SANG AHN*, University of Alaska Fairbanks, **USA**

Compressive Strength of Geopolymer Paste with Municipal Sewage Sludge Ash as Precursor, *Xiaochao Tang*, Widener University, *Ibrahim Alhassan*, Widener University, **United States**

16:00-18:00

**Sessions 4**

#### **SESSION 4A**

##### ***Difficult Contaminants***

Dechlorination for Dioxin-Like Compounds Using Nano-Size Calcium Particles Under Dry Conditions, *Yusaku Imasaka*, Prefectural University of Hiroshima, *Yoshiharu Mitoma*, Prefectural University of Hiroshima, *Yumi Katayama*, Hachinohe Institute of Technology, *A Halem Hadi Imran Bin*, **Japan**

Characterization of PAHs, Dioxins, and VOCs as Result of Garbage Burning in Rural Arizona, *Emmanuel Gonzalez Figueroa*, University of Arizona, *Amanda Bates*, University of Arizona, *Steve Hadeed*, University of Arizona, *Marty Lindsey, Mary Kay O'Rourke*, **United States**

PFAS - The Circular Environment, *Ivan Cooper*, National Wastewater Practice Leader

#### **SESSION 4B**

##### ***Waste Management Economics***

Resuscitating the Market for Post-Consumer Materials Through Exchange-Traded Derivatives, *Jordan Howell*, Rowan University, *Daniel Folkinshteyn*, Rowan University, *Jordan Moore*, Rowan University **USA**

The Cost of Logistics in Waste to Materials and Energy Systems, *Gamini Mendis*, Penn State Behrend, *Justin Richter*, Penn State University, *Alicyn Rhoades*, Penn State Behrend **USA**

An Economic and Environmental Evaluation of a Novel Circular Economy Waste Management Strategy, *Brooke Marten*, University of Colorado Boulder, *Sherri Cook*, University of Colorado Boulder, *Claire Butler*, University of Colorado Boulder, *Brooke Marten*, **USA**

Development of Solid Waste Management Decision Making Life Cycle Assessment Tool for Growing Economies, *Ketan Shah*, The University of Texas at Arlington, *Melanie Sattler*, The University of Texas at Arlington, **United States**

**SESSION 4C**  
**Case Studies 2**

The Impact of Tourism on Solid Waste Generation in the Brazilian Municipality of Florianópolis, *Julio Dias*, Santa Catarina State University - UDESC, *Carlos De Rolt*, Santa Catarina State University, *Adriano de Amarante*, Santa Catarina State University - UDESC  
**Brazil**

Knowledge and Perceptions about Electronic Wastes Amongst Informal Waste Collectors in Jos, Plateau State (Nigeria), *Isaac Tebogo Rampedi*, University of Johannesburg, *Kangyang Josiah Miner*, University of Johannesburg, *Ayodeji Peter Ifegbesan*, University of Olabisi-Onabanjo  
**South Africa**

Circular Economy Prospects for Waste-Based Materials, *Luiz Solon Souza Barreto*, Federal University of Santa Catarina, *Enedir Ghisi*, Federal University of Santa Catarina, **Brazil**

Recycling and Reusing of Aircraft Materials and Composites, *Muhammad Mustafizur Rahman*, Wichita State University, *Ahsan Habib*, Wichita State University, *Eylem Asmatulu*, Wichita State University, **United States**

18:00-20:00

**Sessions 5**

**SESSION 5A**  
**Case Studies 2**

A Qualitative Approach to Evaluating National Waste Trends: A Meta-Analysis of EPA Reports 1975-2018, *Matthew Johnston*, Stony Brook University, *Elizabeth Hewitt*, Stony Brook University, *Krista Thyberg*, Stony Brook University, *David Tonjes*, **United States**

Relationship Between Urban Solid Waste Management and Quality of Life in Brazil, *Enedir Ghisi*, Federal University of Santa Catarina, *Liseane Padilha Thives*, Federal University of Santa Catarina, **Brazil**

Consume Less, Generate Less (Waste): How Two Universities are Trying to Make a Difference, *Anita Zavodska*, Barry University, *Anne Morrissey*, Dublin City University, **USA**

COVID-19 and its Impact on Waste Generation, *Anita Zavodska*, Barry University, *Anne Morrissey*, Dublin City University, **USA**

New York City's Solution to Solid Waste Management, *Glen Johnson*, Greeley and Hansen, **United States**



20:00-22:00

Sessions 6

## SESSION 6A

### *Waste Collection and Facility Siting*

Developing a GIS-Based Optimization Framework for Waste-to-Energy Facilities for Western Canada, *Md Mashum Billal*, University of Alberta, *Roshni Mary Sebastian*, University of Alberta, *Amit Kumar*, University of Alberta, *Md Mashum*, **Canada**

Privatization of Solid Waste Management: Opportunities and Challenges, *Yahya Muhammed Bah Myrtati Dyah Artaria*, University of Airlangga, *Artaria Artaria*, University of Airlangga, **Indonesia**

Evaluation on the Classification Effect of Residential Domestic Waste in Shapingba District, Chongqing City, *Zhi Peng Yu*, Chongqing University, *Lu Yu*, Chongqing University, *Tang Xinru*, *Jiang Xinyan*, *Hu Yuanhao*, *Deng Shanshan*, *He Qiao*, *Zhang Qixuan*, *Fu Xin*, *Oumi Tijiang*, *Ding Sicheng*, *Zeng Xiaolana*, **China**

Analysis on the Influencing Factors of the Classification Effect of Urban Residential Domestic Waste—A Case Study in Glen Ridge City, New Jersey, *Sicheng Ding*, George School, *Zhipeng Yu*, Chongqing University, *Lu Yu*, Chongqing University, *Tang Xinru*, *Jiang Xinyan*, *Hu Yuanhao*, *Deng Shanshan*, *He Qiao*, *Zhang Qixuan*, *Fu Xin*, *Oumi Tijiang*, *Zeng Xiaolan*, **United States**

## SESSION 6B

### *Chemical Treatment 1*

Optimization Approach for Solvent Extraction Process of Oily Contaminated Soil with Addition of Biosurfactant, *Lely Fitriyani*, Institute Technology of Bandung, Indonesia, *Edwan Kardena*, Institute Technology of Bandung, *Sukandar Sukandar*, Institute Technology of Bandung, *Qomaruddin Helmy*, **Indonesia**

Effect of Membrane Removal on The Production of Calcium Oxide from Eggshells Via Calcination, *Samuel Tomi Aina*, University of Pretoria, *Barend Du Plessis*, University of Pretoria, *Vuyo Mjimba*, Human Sciences Research Council, *H.G. Brink*, **South Africa**

Selective and Straightforward Recovery of Precious Metals from Waste Sources Using Dithiocarbamate-Modified Cellulose, *Foni Bushon Biswas*, Kanazawa University, *Ismail M. M. Rahman*, Fukushima University, *Keisuke Nakakubo*, Kanazawa University, *Koki Yunoshita*, *Masaru Endo*, *Kanji Nagai*, *Asami S. Mashio*, *Tsuyoshi Taniguchi*, *Tatsuya Nishimura*, *Katsuhiko Maeda*, *Hiroshi Hasegawa*, **Japan**

**SESSION 6C**  
**Research Advances 1**

Modeling Turbulence in Landfill Gas Flow: Ingress into a Horizontal Well, *Abhishek Baral*, Thompson Rivers University, *Yana Nec*, Thompson Rivers University, **Canada**

The Properties and Formation of Fouling During Leachate Reverse Osmosis Membrane Treatment in Both a Typical Incineration Plant and a Landfill, *Lu Yu*, ChongQing University, *Kunyu Li Zhipeng Yu*, ChongQing University, *Zeng Xiaolan*, **China**

Optimization of Gasification Model for Hydrogen Production from Municipal Solid Waste, *Apinya Chanthakett*, Deakin University, *Arif Mohammad Taufiqul*, Deakin University, *Masud Khan Mohammad*, Central Queensland University, *Aman Maung Than Oo*, **Australia**

Investigation of Catalytic Degradation of Municipal Waste Expanded Polystyrene using Cu, CuO and CuCl<sub>2</sub> Catalysts, *Adnan Adnan*, University of Swat, *Jasmin Shah*, University of Peshawar, *Muhammad Rasul Jan*, University of Peshawar **Pakistan**

**TUESDAY, MARCH 16**

8:00-10:00

**SESSION 7**  
**Poster Session 2**

Waste Management Practices and Its Effects on Student's Physical Health, *Marvin De Leon*, La Consolacion University Philippines Malolos City, Bulacan, **Philippines**

Assessment of Knowledge and Attitude Among Healthcare Workers on Medical Waste Management in Healthcare Facilities: A Systematic Review, *France Raphaela*, Central University of Technology, Free State, **South Africa**

Preparation and Coloring Mechanism of Cobalt-Free Black Ceramic Pigments from Stainless Steelmaking Dust, *Mengke Liu*, Wuhan University of Science and Technology, *Guojun Ma*, Wuhan University of Science and Technology, *Xiang Zhang*, Wuhan University of Science and Technology **China**

An Eco-Innovative Solution for Reuse of Leachate Chemical Precipitation Sludge: Application to Sanitary Landfill Coverage, *Ana Baía*, Universidade da Beira Interior, *Alfredo Martínez-Cruz*, National Autonomous University of Mexico, *Annabel Fernandes*, Universidade da Beira Interior, *Filomena Ramos*, *Sofia Soares*, *Pedro Correia*, *Ana Lopes*, *Fátima Carvalho*, **Portugal**

New Perspectives in Recycling Titanium Chips by Solid State Processing, *Krzysztof Topolski*, Faculty of Materials Science and Engineering, Warsaw University of Technology, **Poland**

An Experimental Study on Durability of Improved Saline Soil Under Repeated Freeze- Thaw Cycles, *Fang Li*, Jiangsu Province Nanjing Engineering Vocational College, *Sunlin Sun*, School of Earth Sciences and Engineering Hohai University, *Deheng Zhang*, Department of Architecture Civil Engineering Nanjing Institute of Technology, **P.R. China**

Visualization of Classified Garbage in Space-Time Cube, *Bingbing Song*, Jiangsu Province Nanjing Engineering Vocational College, **The People's Republic of China**

Pakistan First Integrated Recourse Recovery Center (IRRC), *Syed Sheraz Ali Shah*, United Nations Human Settlement Programme (UN-Habitat), **Pakistan**

Waste Collection & Management, *Margaret Beyslow*, Environmental Protection Agency of Liberia, *Lucia Paye-Layleh*, Environment Protection Agency, *Andyll Quamie*, Environment Protection Agency, *Moretha Browne*, **Liberia**

The Properties and Formation of Fouling During Leachate Reverse Osmosis Membrane Treatment in Both a Typical Incineration Plant and a Landfill, *Lu Yu*, ChongQing University, *Kunyu Li Zhipeng Yu*, ChongQing University, *Zeng Xiaolan*, **China**

Analysis of the Permanent Deformation and Loss by Induced Moisture in Asphaltic Mixtures of the Hma Type, Using Recycled Aggregates of Construction and Demolition Waste, *Tayná Macêdo*, University Federal of Sergipe, *Joelson Hora Costa*, University Federal of Sergipe, *Victor Manuel de Queiroz Lourenço*, University Federal of Sergipe, *Larissa Chagas Cordeiro; Gardênia Rocha*, **Brazil**

New measurements of the discharge and turnaround time of solid waste transportation in Lagos megacity, *Samuel Odewumi*, Lagos State University, Ojo, Lagos, **NIGERIA**

10:00-14:00.

## **SESSION 8**

**Special Workshop**

### **Symposium on the Conversion of Waste Plastics into Monomers and Intermediates**

Chemical Recycling of Polyolefins Over a Waste Refinery Catalyst, *Michael Jenks*, Utrecht University, *Ina Vollmer*, Utrecht University, *Bert Weckhuysen*, Utrecht University, *Florian Meirer*, **The Netherlands**

Deconstruction and Upcycling of Waste Polyol Plastics via Zeolite Catalysts, *Andrew Jaeschke*, University of South Carolina, *Michael Royko*, University of South Carolina, *Jochen Lauterbach*, University of South Carolina, *Alex Katz*, *Blake Macqueen*, **United States**

Thermal Degradation of Polystyrene to Monomers; Comparison of Microwave-Assisted Pyrolysis with Conventional Pyrolysis, *Amir Enferadi Kerenkan*, Pyrowave, *Jean-Philippe*

*Laviolette, Pyrowave, Jocelyn Doucet, Pyrowave, Philippe Leclerc, Canada*

STL: Conversion of Waste Solids to Monomers and Intermediates, *Samyukta Pingali*, Manhattan College, *Gennaro Maffia*, Manhattan College, *Anne Gaffney*, University of South Carolina, **United States of America**

Waste Plastics Recycling or Repurposed During a Deep Space Mission, *Alexis Naclerio*, Manhattan College, *Eden Collazo*, Manhattan College, *Samyukta Pingali*, Manhattan College, *Gennaro Maffia*, *Anne Gaffney*, **United States**

ASPEN-HYSYS Simulations for the Small Scale Conversion of Waste Plastics into Gaseous and Liquid Fuels, *Ahmed Elkhaiary*, Firmenich SA, *Gennaro Maffia*, Manhattan College, **Switzerland**

14:00-16:00

Sessions 9

## SESSION 9A

### *Use of Wastes in Construction 2*

Effect of Curing Regime on the Mechanical Properties of Recycled Aggregate Concrete, *Roz-Ud-Din Nassar*, American University of Ras Al Khaimah (AURAK), *Taqdees Aysha*, Concrete Technology L.L.C., **United Arab Emirates**

A Novel Mix Design for Wood Ash-Incorporated Rammed Earth Material, *Amin Ajabi*, The University of British Columbia Okanagan, *Chinchu Cherian*, The University of British Columbia Okanagan, *Sumi Siddiqua*, The University of British Columbia Okanagan **Canada**

Using Local Waste Plastics in Asphalt Modification to Improve Engineering Properties of Roads, *Finn Hall*, University of the Sunshine Coast, *Greg White*, University of the Sunshine Coast, **United Kingdom**

Analysis of the Permanent Deformation and Loss by Induced Moisture in Asphaltic Mixtures of the Hma Type, Using Recycled Aggregates of Construction and Demolition Waste, *Tayná Macêdo*, University Federal of Sergipe, *Joelson Hora Costa*, University Federal of Sergipe, *Victor Manuel de Queiroz Lourenço*, University Federal of Sergipe, *Larissa Chagas Cordeiro*; *Gardênia Rocha*, **Brazil**

## SESSION 9B

### *Biological Treatment 2*

Role of Microbial Inoculant in Composting of Garden Waste Using Aerated In-Vessel Technology, *Sandeep Kumar Mishra*, Sardar Vallabhbhai National Institute of Technology, Surat, *Kunwar D. Yadav*, Sardar Vallabhbhai National Institute of Technology, **India**

Effects of Municipal Solid Waste Compost on Growth and Yield of Vegetables Crops in Agricultural Soils of Mysore District, Karnataka, India, *Kaveri M Kumar*, University of Mysore, *Shiddappa L Belagali*, University of Mysore, **India**

Performance Studies on Biogas Production Using Paper Waste and Cow Dung in Community Based Biodigester, *Jyothilakshmi Ramaswamy*, M. S. Ramaiah Institute of Technology, *Sumangala Patil*, M. S. Engg College, Bangalore, *Hemanth Kumar K J*, VVCE, *Sandhya Jayakuma*, *Sadhan Kumar Ghosh*, **India**

Identification of Suitable Earthworm Species for Recycling of Fly Ash as Vermish, *Gourab Roy*, MBB College, Agartala, **India**

### SESSION 9C *Research Advances 2*

Anaerobic Decolorization and Biodegradation of Reactive Red Azo Dye Using Immobilized Mixed Cells: Toxicity Characterization, *Zainab Ismail*, University of Baghdad, *Basma Hameed*, University of Baghdad, **Iraq**

New measurements of the discharge and turnaround time of solid waste transportation in Lagos megacity, *Samuel Odewumi*, Lagos State University, Ojo, Lagos, **NIGERIA**

Characterization, concentration of biochar and titanspheres and heavy metals assessment of Quercus suber cork powder fly ash fractions, *Renato Guimarães*, University of Porto, Sciences Faculty, *Alexandra Guedes*, University of Porto, Sciences Faculty, *Bruno Valentim*, University of Porto, Sciences Faculty, **Portugal**

16:00-18:00

**Virtual Collaboration Reception**

18:00-19:00

**Sessions 10**

### SESSION 10A *Advances on Chemical Treatment 2*

Use of PVDF (Polyvinylidene Fluoride) Fibers in the Process of Absorption of Contaminants in Saturated Sandy Soils, *Gabriella Vieira*, University of Brasilia, *Michéle Casagrande*, University of Brasilia, *André Cavalcante*, University of Brasilia, *Matheus Lopes*, **Brazil**

Physical and Chemical Differences in the Colors of Alkali Treated Solutions of Incinerated Rice Husk Ash Under Different Temperatures, *Ryoko Sekifuji*, Toyama Prefectural University, *Masafumi Tateda*, Toyama Prefectural University, *Hiroshi Takimoto*, Ishikawa Prefectural University **Japan**

**SESSION 10B**  
***Policy and Education***

Teaching Solid Waste Management to Environmental Public Health Students Through Personal Waste Audit, Energy Saving, and Self-Reflection Analysis, *Susan Mirlohi*, California State University Fresno - Department of Public Health, **United States**

An Analysis of FEMA Public Assistance Funding for Disaster Debris Removal, *Julia Crowley*, Western Carolina University, **United States**

19:00  
**Closing Session and Discussion**