

# The Twenty-Fourth International Conference on Solid Waste Technology and Management

**Philadelphia, PA, USA**

**March 15 - 18, 2009**

## **AGENDA**

(updated March 9, 2009)

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Founder:  
Iraj Zandi  
University of  
Pennsylvania

Chair:  
Ronald L. Mersky  
Widener University

Conference Secretary:  
Kathleen Donaghy  
Widener University



**Widener  
University**

The Journal of Solid Waste Technology and Management



**Scientific Committee:**

- Haluk Akgun, Middle East Technical University, Turkey
- Giuseppe Bonifazi, Sapienza – Università di Roma, Italy
- Shouu-Yuh Chang, North Carolina A&T State University, USA
- Thomas Coskeran, Scottish Government, UK
- Ruby Mejía de Gutiérrez, Universidad del Valle - Escuela de Ingeniería de Materiales, Colombia
- Mervat El-Hoz, University of Balamand, Lebanon
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- Noah Galil, Technion-Israel Institute of Technology, Israel
- William L. Magette, Civil Engineering, University College Dublin, Ireland
- Ilan Nissim, Ministry of the Environment, Israel
- Sara Ojeda-Benitez, Autonomous University of Baja California Engineering Institute, México
- Chukwu Onu, Southern University and A & M College, USA
- Paul S. Phillips, University of Northampton, UK
- Eva Pongrácz, University of Oulu, Finland
- Jason Scott, The University of New South Wales, Australia
- Alfred H. Stiller, Monongalia County Solid Waste Authority, USA
- Jerry Uhuo, National Assembly, Abuja, Nigeria
- Bruce G. Wilson, University of New Brunswick, Canada
- Anita Závodská, Barry University, USA

# CONFERENCE SUMMARY

## SUNDAY, MARCH 15, 2009

Pre-Conference Tour of Philadelphia  
Opening Reception

## MONDAY, MARCH 16, 2009

Opening Plenary

### Oral Presentations

- 1A Recycling and Waste Minimization
- 1B Innovative Technologies 1
- 1C Landfill Liners
- 1D Waste Generation and Composition
  
- 2A Recycling and Reuse Technologies
- 2B Integrated Management Studies
- 2C Food and Organic Wastes
- 2D Contaminated Disposal Sites
  
- 3A Agricultural Wastes 1
- 3B Landfill Leachate Studies
- 3C Recycling Studies
- 3D Innovative Technologies 2
- 3E Thermal Treatment and Energy
  
- 4A Community Behavior and Education
- 4B Industrial Wastes Management and Use
- 4C New Approaches to Landfills
- 4D Organic Wastes

Poster Session 1

## TUESDAY, MARCH 17, 2009

### Oral Presentations

- 5A Ash
- 5B Policy and Regulations 1
- 5C Bioreactor and Innovative Landfills
- 5D Compost Utilization and Agricultural Wastes 2
  
- 6A Landfill Studies
- 6B Policy and Regulations 2
- 6C Waste Collection
- 6D Use of Waste in Construction 1

Poster Session 2

### Oral Presentations

- 7A Environmental Assessment 1
- 7B Utilization of Wastes
- 7C Construction and Demolition Wastes
- 7D Sludge
- 7E Specialized Wastes
- 7F Small U.S. Communities and Solid Waste Issues
  
- 8A Use of Wastes in Construction 2
- 8B Environmental Assessment 2
- 8C Waste Management in Developing Regions
- 8D Modeling
- 8E Planning Studies

Closing Reception

## WEDNESDAY, MARCH 18, 2009

Technical Field Trips

# DETAILED AGENDA

## SUNDAY, MARCH 15

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

Conference check-in and registration

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

Tour of Philadelphia  
(additional fee)

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

Welcome Reception

## MONDAY, MARCH 16

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. – 9:30 a.m.

Opening Plenary

9:30 a.m. - 11:05 a.m.

**Sessions 1**

### SESSION 1A

#### *Recycling and Waste Minimization*

Calculating Recycling Rates for an Acute General Hospital, *Anne C. Woolridge*, Researcher, The University of Northampton, **UK**

Is Recycling Garbage? – The Barry University Sequel, *Anita Závodská*, Assistant Professor of Environmental Sciences, Barry University, **USA**

Case Study: Creating a Successful Public Outreach Tool for Minimum Cost with Maximum Results, *Laura J. Stiller*, Recycling Coordinator, Monongalia County Solid Waste Authority, *Barbara MacLennan*, Outreach Coordinator, Monongalia County Solid Waste Authority, *Gregory E. Adolfson*, Sustainability Officer, West Virginia Department of Environmental Protection, **USA**

Industrial Engineering And Its Applications In Solid Waste Minimization, *Jenny Ulloa*, Student, The University of Toledo, College of Engineering, *Matthew Franchetti*, Assistant Professor and Director of the Environmentally Conscious Design and Manufacturing Lab, The University of Toledo, College of Engineering, **USA**

### SESSION 1B

## ***Innovative Technologies 1***

Israeli Designed ArrowBio Plant for 300 TPD MSW Opens in Sydney, Australia, *Melvin S. Finstein, PhD*, Head, ArrowBio USA, Arrow Ecology Ltd, *Yair Zadik*, CEO, Arrow Ecology Ltd, *Jeanne H. Finstein*, Education Affiliate, Arrow Ecology Ltd, **USA**

Use of Anaerobic Digestion Gases in Solid Oxide Fuel Cells for the Production of Heat and Power – Challenges and Sizing Issues, *E. Agante*, Ph.D. Student, Imperial College London, *D. J. L. Brett*, Lecturer, University College London, *N. P. Brandon*, Professor (Shell Chair in Sustainable Development in Energy), Imperial College London, **UK**

Interactive Odor & Particulate Control, *Robert Richardson*, President, Pacific Rim Design & Development Inc., **USA**

Feather Waste Management Using Microbial Keratinase, *Rajni Singh*, Assistant Director, Amity University, **India**

### **SESSION 1C**

#### ***Landfill Liners***

Innovative Landfill Closures, *Alfred M. Yates, P.E.*, Senior Project Manager, Brickhouse Environmental, *David Evans*, Senior Project Manager, Brickhouse Environmental, **USA**

Bentonite Microstructure Formation in Clay Liners, *Nikol Kochmanova*, Ph. D. Candidate, Laboratory of Soil Mechanics, Hokkaido University, *Hiroyuki Tanaka*, Associate Professor, Laboratory of Soil Mechanics, Hokkaido University, **Japan**

Geotechnical Aspects Of Ankara Clay As A Compacted Landfill Liner Material, *Haluk Akgun*, PE, Professor, Regional Editor, Middle East Technical University, **TURKEY**

Exposed Geomembrane Covers: A Research Summary Paper Incorporating a Practical Design Example, *David R. Lutz, EIT*, Engineer/Student, NTH Consultants, Ltd., *Dr. Carol Miller, PE*, Chair, Department Of Civil and Environmental Engineering, Wayne State University, **USA**

### **SESSION 1D**

#### ***Waste Generation and Composition***

An Investigation of Seasonal Variation in Municipal Solid Waste Composition in Tropical Urban Environment: A Case Study of Abuja, Nigeria, *C. Ezeah*, Corresponding Author, University of Wolverhampton, *C.L.Roberts*, Author, University of Wolverhampton, *D.G.Watkin*, Author, University of Wolverhampton, *P.S.Philips, A. Odunfa*, **UK**

Solid Waste Crisis in Nigeria – A Preliminary Comparative Study on Residential Solid Waste Generation and Management in Lagos and Benin Metropolis., *Dennis Iyeke Igbinomwanhia*, Lecturer I, University of Benin, Benin City, Nigeria, *Ohwovoriole, Ejovo Nena*, Professor of Design, University of Benin, **Nigeria**

Waste Characterization Analyses: City of Regina Methodology and Results, *Christina M. Canart*,

Masters Candidate, Department of Geography, University of Regina, *Dena W. McMartin*, Associate Professor, Environmental Systems Engineering, University of Regina, **Canada**

Measuring Productivity and Efficiency of Portuguese Solid Waste Utilities, *P. Simões*, Ph.D. student, *R. C. Marques*, Ph.D., Center of Urban and Regional Systems (CESUR), DECivil, Technical University of Lisbon, **Portugal**

Research On Waste Generation Indicators For 40 Thousand Inhabitants Community, *Krzysztof Gaska*, professor, Silesian University of Technology, *Agnieszka Generowicz*, professor, Cracovian Technical University, **Poland**

11:05 a.m. - 11:20 a.m.

Break,

11:20 a.m. – 1:20 p.m.

**Sessions 2**

## **SESSION 2A**

### ***Recycling and Reuse Technologies***

Separation of Granulated Mixtures of Plastics from WEEE, *M. Teresa Carvalho*, Professor, Instituto Superior Tecnico, *João Tiago Santos*, Fellow Researcher, Instituto Superior Tecnico, *Célia Ferreira*, Fellow Researcher, Instituto Superior Tecnico, **Portugal**

Study of Non-Cyanide Gold Stripper for Wasted BGA Boards from IT Industry, *Bing-Sheng Yu*, Associate Professor, Department of Materials and Mineral Resources Engineering, National Taipei University of Technology, *Masayuki Waki*, Vice President, Sus Recycling Technology Inc, *Chung-Hsiao Lien*, Graduate Student, Department of Materials and Mineral Resources Engineering, National Taipei University of Technology, *Shi-Yi Zhan*, **Taiwan, R.O.C.**

Fiber Recovery From Recycling Aseptic Waste Pack, *Salah El-Haggag*, Professor, The American University in Cairo, *Eiman Hamdy*, Research Assistant, The American University in Cairo, **Egypt**

Copper Slag As An Alternative Material For Road Construction, *Vasant G. Havanagi*, Ph.D, *A.K.Sinha*, M.Tech, *P.S.Prasad*, M.E, *Sitaramanjanyulu*, M.E, *Sudhir Mathur*, M.Tech, Central Road Research Institute, **India**

Microwave drying of moisture-rich solid wastes, *Dr Richard Marsh*, Lecturer, Cardiff University - School of Engineering, *James Tiernan*, MSc Student, Cardiff University - School of Engineering, Prof Tony Griffiths, *United Kingdom*, **United Kingdom**

Recycling and Utilization of Spent Hydroprocessing Catalysts, *A. Stanislaus*, Senior Research Scientist, Kuwait Institute for Scientific Research, *M. Marafi*, Senior Research Scientist, Kuwait Institute for Scientific Research, **Kuwait**

## **SESSION 2B**

## ***Integrated Management Studies***

Solid Waste Crisis In Nigeria – A Case Study Of The Constraint To Residential Solid Waste Disposal And Management In Benin Metropolis, *Dennis Iyeke Igbinomwanhia*, Lecturer I, University of Benin, Benin City, Nigeria, *Ohwovoriole, Ejovo Nena*, Professor of Design, University of Benin, **Nigeria**

A Study on Solid Waste Management Practices in Historical City of Patna, India-Impact on Communities and Social Spaces, *Shailendra Kumar Mandal*, Lecturer. Department of Architecture, National Institute of Technology Patna, *Dr. Surendra Kumar*, Professor and Head, Department of Civil Engineering, National Institute of Technology Patna, **India**

Driving The Waste Prevention Agenda: An Evaluation Of Weighing Kerbside Household Waste Arisings Methodology In Doreset, UK, *Prof. Paul Phillips*, University of Northampton, **UK**

Technical, Economical and Social Solutions for Integrated and Sustainable Waste Management Systems in Rural Areas in Romania, *Dr.eng. Alexei Atudorei*, Head of Waste Management Team, SC ISPE SA, *Dr.eng. Luminita Gabriela Atudorei*, Scientist, SC ISPE SA, *Dr.eng. Elena DUMITRU*, Councillor, European Union - European Parliament, *Eng. Valentin RUSU*, **Romania**

Evaluating Solid Waste Management Alternatives Using Fuzzy Multicriteria Decision Analysis, *Shoou-Yuh Chang*, Professor, North Carolina A&T State University, *Francis Eshum*, research assistant, North Carolina A&T State University, **USA**

The Application of the EPR Principle to Waste Streams in Portugal, *Isabel Tomé de Andrade*, Head of Department, Portuguese Environment Agency, *Ana Cristina Carrola*, Head of Division, Portuguese Environment Agency, **Portugal**

Development of Environmental Decision Support System for Municipal Solid Waste Management in India, *Dr. Prabhat Kumar Singh*, Reader, Institute of Technology, Banaras Hindu University, *Anurag Ohri*, Lecturer, Institute of Technology, Banaras Hindu University, **India**

## **SESSION 2C**

### ***Food and Organic Wastes***

What Should I Do with My Banana Peel?, *Kendall Christiansen*, Principal, Gaia Strategies, *Michael Keleman*, Environmental Engineer, Insinkerator, **USA**

Authoring Best Practice Guides For Regulators And Industry, *Dr Georgina Davis*, Principal, Queensland Environmental Protection Agency, **Australia**

Development and Preliminary Evaluation of a Commercial Duty Composting System, *Dr. Michael A. Aloria*, Dean, College of Engineering, Architecture, Fine Arts & Computing Sciences, Batangas State University, **Philippines**

Development of Bagasse Pelletizer, *Donnalyn C. Cabaces*, Asst. Director Engineering & Technology Research, Batangas State University, *Coleen M. Pernes*, *Mary Grace Bahillo*, *Timothy Joseph Dalanon*, **Philippines**

Removal Of Copper From Aqueous Solutions Using Walnut Shells, *Sama Alkarmy*, Regulatory Engineer, Hikma Pharmaceutical, *Lua'y Zeatoun*, Associate Professor, Jordan University of Science and Technology, *Bayan Jodeh*, Engineer, Jordan University of Science and Technology, **Jordan**

Microbiological Indicators Of Well Water Pollution And Probability For Cholera Outbreaks And Other Diseases: The Case Of Some Neighbourhoods In The City Of Douala Cameroon., *Epule Terence*, Researcher, Lund University Sweden, *Balgah Sounders*, Senior Lecturer, University of Buea, **Sweden**

## **SESSION 2D** *Contaminated Disposal Sites*

Physicochemical Water Quality Seasonal Variations of the Salhad Stream, South Abbottabad, North Pakistan, *Farhana Maqbool*, Ph.D scholar, COMSATS, *Amir Haider Malik*, Foreign Professor COMSATS, *Zulfiqar Ahmed Bhatti*, Assistant Professor, COMSATS, *Dr. Arshid Pervez*, **Pakistan**

Bioremediation Of A Cr(VI) Contaminated Site: A Conceptual And Feasibility Study For A Site In Brits, *Pulane E. Molokwane*, Doctoral Student, University of Pretoria, *Evans M.N. Chirwa*, Associate Professor, University of Pretoria, **South Africa**

Effect of Solid Waste Disposal on the Microbiological Water Quality of Salhad Stream South Abbottabad, North Pakistan, *Farhana Maqbool*, Ph.D scholar, COMSATS, *Amir Haider Malik*, Foreign Professor COMSATS, COMSATS, *Arshid Pervez*, Assistant Professor, COMSATS, *Zulfiqar Ahmed Bhatti*, **Pakistan**

Contamination by Obsolete Organochlorine Pesticides and Polychlorinated Biphenyls, *Artak Khachatryan*, Head of Division, Waste Research Center, *Anahit Aleksandryan*, Head of Department, Ministry of Nature Protection of the Republic of Armenia, **Republic of Armenia**

Correlation Between Physical Chemical Properties Of Different Venezuelan Crude Oils And Their Biodegradability, *Elena U. Ehrmann*, Associate Professor, Universidad Simón Bolívar, *Carmen Infante*, Professor, Universidad Central de Venezuela, *Héctor Martínez*, Undergraduate Student, Universidad Simón Bolívar, **Venezuela**

Surfactant Enhanced Remediation of Contaminated Soil and Groundwater (In-situ and Ex-situ case studies), *George Ivey*, President, Ivey International Inc., *Paul Wierbicki*, Ivey International Inc., **Canada**

Surfactant Enhanced Remediation of DNAPL Contaminated Soil and Groundwater Refinery Site Case Study, *George Ivey*, President, Ivey International Inc., *Martin Beaudoin*, Project Manager, Sanexen Environmental Services Inc., **Canada**

Waste Dumps: Urgent Problem in Armenia, *Khachatur Khachatryan*, MS Degree student, Yerevan State University, **Republic of Armenia**

Study on BTX Volatilization and Biodegradation for Remediation of Illegal Dumping Sites by an Air Injection Method, *Kazuei Ishii*, Assistant Professor, Graduate school of engineering, Hokkaido University, *Toru Furuichi*, Professor, Graduate school of

engineering, Hokkaido University, *Noboru Tanikawa*, Associate Professor, Graduate school of engineering, Hokkaido University, **Mika Otsuka, Japan**

1:20 p.m. - 2:20 p.m.

**Awards Luncheon**

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

2:20 p.m. – 4:00 p.m.

**Sessions 3**

**SESSION 3A**

***Agricultural Wastes***

Utilizing of Sugarcane Baggase for Producing Useful Chemicals, *Chizuru Sasaki*, Assistant Professor, Tokushima University, *Yuya Yamashita*, Doctor course student (D3), Tokushima University, *Yoshitoshi Nakamura*, Professor, Tokushima University, **Japan**

The Effects of Organic Wastes on Sodosols in Tasmania, Australia, *Stephen Ives*, PhD Candidate, Tasmanian Institute of Agricultural Research, University of Tasmania, *Dr. Bill Cotching*, Senior Research Fellow, Tasmanian Institute of Agricultural Research, *Dr. Leigh Sparrow*, Senior Research Fellow, Regional Deputy Director North, Tasmanian Institute of Agricultural Research, *Dr. Shaun Lisson and Dr. Richard Doyle*, **Australia**

Diesel Fuel Extender from Hog Manure, *Alfred H. Stiller, Ph.D.*, Professor, West Virginia University Department of Chemical Engineering, *Eugene Felton, Ph.D.*, Assistant Professor, West Virginia University Division of Animal Sciences, *Eric Johnson, Ph.D.*, Professor, West Virginia University Department of Mechanical & Aerospace Engineering, *Laura Eddy, Josh Parenti*, **USA**

Practicality of a High Value-Added Edible Mushroom Using Sweet Potato Shochu Lees, *Masahito Yamauchi*, Associate Professor, Department of Civil Engineering / Kagoshima National College of Technology, *Masayoshi Yamada*, Research Associate, Department of Civil Engineering / Kagoshima National College of Technology, *Sumio MASUDA*, Professor, Department of Civil and Environmental Engineering / Miyazaki University, *Megumi Mihara, Mariko Sakamoto and Tadahiro Matsuda*, **Japan**

Use of Collagen Nanofibrils Made from Waste Corium in Water Treatment, *Michael Montgomery*, graduate student, Widener University, *Gennaro Maffia*, Professor of Chemical Engineering, Widener University, **USA**

**SESSION 3B**

***Landfill Leachate Studies***

Leaching Impact Of Solid Waste From Landfill And Dumping Site On Water Sources, *S. Gautam*, M.Sc.(Hydro Sciences and Engineering) Student, Dresden University of Technology, Dresden, *R. Pokharel*, MA (Sustainable Environmental Management) Student, Middlesex

University. UK, **Germany**

Evapotranspirative, Soil-plant Systems with Reed (*Phragmites australis*) for Landfill Leachate Treatment – Two Years Operational Experiences, *Bialowiec Andrzej*, Adjunct; Ph.D, The University of Warmia and Mazury in Olsztyn, Department of Environmental Biotechnology, *Kasinski Slawomir*, Ph.D. Student, The University of Warmia and Mazury in Olsztyn, Department of Environmental Biotechnology, **Poland**

Groundwater Diversion Upgradient of a Canyon Landfill, *Mick Williams, P.E.*, civil engineer, Shaw Environmental, Inc., *Mark Unruh, C.E.G.*, Geologist, Shaw Environmental, Inc., *Gary R. Hecox, Ph.D.*, Senior Staff Scientist, Shaw Environmental, Inc., Javier Polanco, **USA**

### **SESSION 3C** ***Recycling Studies***

Recycling: Economic Profitability of the Plant Responsible for Processing Waste into Secondary Materials, *Mohamed Alwaeli*, Professor, Silesia University of Technology, **Poland**

Design and Management of Low Strength Recycle Material, *Hao-Hsien Chen*, Ph.D. Candidate, Dept. of Civil Engineering, National Central University, *Jyh-Dong Lin*, Ph.D., Dept. of Civil Engineering, National Central University, *Hui-Mi Hsu*, Ph. D., Dept. of Civil Engineering, National Ilan University, *Jyh-Tyng Yau*, **Taiwan, R.O.C.**

An Economic And Operational Analysis Framework And Assessment Tool For Government Owned Material Recovery Facilities, *Matthew Franchetti*, Assistant Professor and Director of the Environmentally Conscious Design and Manufacturing Lab, The University of Toledo, College of Engineering, **USA**

The Potential Application of Sulfonated Polystyrene (SPS) from Recycled Styrofoam in the Reduction of Heavy Metals in Wastewater, *Prof. Sharon M. Manalac*, Assistant Professor, University of the Philippines-Diliman, Extension Program in Pampanga, *Prof. Antonio E. Senador Jr.*, Assistant Professor, University of the Philippines-Diliman, Chemical Engineering Department, *Dr. Angela D. Escoto*, Associate Professor, University of the Philippines-Diliman, Chemical Engineering Department, **Philippines**

Recycled Waste Paper and the Corrugated Packaging Industry in Europe, *Stergios Adamopoulos*, Assistant Professor, Technological Educational Institute of Larissa, Department of Forestry and Management of Natural Environment, *Costas Passialis*, Associate Professor, Aristotle University of Thessaloniki, School of Forestry and Natural Environment, *Elias Voulgaridis*, Professor, Aristotle University of Thessaloniki, School of Forestry and Natural Environment, **Greece**

### **SESSION 3D** ***Innovative Technologies 2***

Adsorption of Chromium (VI) by Metal Hydroxide Sludge from the Metal Finishing, *Perrin Loïc*, PhD Student, Ecoles des Mines de Saint Etienne, *Laforest Valérie*, Assistant Professor, Ecole des Mines de Saint Etienne, *De Roy Marie*, Professor, LMI Faculty Blaise Pascal, *Forano, Bourgois*, **France**

Photoassisted Biodegradation Of Halogenated Breakdown Products In Nuclear Fuel Recovery Process Water - Hybrid Reaction Process, *Stanford S. Makgato*, Research Assistant, University of Pretoria, *Evans M.N. Chirwa*, Associate Professor, University of Pretoria, **South Africa**

Nuclear Waste Minimisation For New Generation Nuclear Reactors – Carbon-14 Bioseparation, *Evans M. N. Chirwa*, Associate Professor, University of Pretoria, *Pulane E. Molokwane*, Doctoral Student, University of Pretoria, **South Africa**

Surfactant Enhanced Bioremediation of F3 and F4 Contaminated Soils, *George Ivey*, President, Ivey International Inc., *Dan Stangroom*, Remediation Manager Australia, Veolia Environmental Services, **Canada**

Hazardous Airborne Solid Waste Rapid Identification, *E. Azmon*, Prof. retired, Ben Gurion Univ., **Israel**

### **SESSION 3E**

#### ***Thermal Treatment and Energy***

Quantification of products from thermal decomposition of solid wastes, *Dr Richard Marsh*, Lecturer, Cardiff University - School of Engineering, *Julian Steer*, Research Associate, Cardiff University - School of Engineering, Prof Tony Griffiths, *United Kingdom*, **United Kingdom**

Physiological Approach Of Municipal Solid Waste To Biogas Leading To Low Cost Energy Generation, *Dr.A.P.Verma*, Univ.Professor, Magadh University, *Uma K.Verma*, Sr.Lecturer, Magadh University, **INDIA**

Sludge Dryer Wet Scrubber Used to Produce Renewable Energy, *Andrew Bartocci*, National Sales Manager, Envitech, Inc., **USA**

4:00 p.m. - 4:15 p.m.

**Break**

4:15 p.m. – 6:00 p.m.

**Sessions 4**

### **SESSION 4A**

#### ***Community Behavior and Education***

Public Relations An Educative Tool in Creating Positive Attitudinal Changes to Solid Waste Management Case Study of Edo State, Nigeria, *John-Jay Jesuorobo Asemota*, Primus Global Resources, **Nigeria**

Recycling Ambassadors, *Barbara MacLennan*, Senior Lecturer, West Virginia University Intensive English Program, *Stacy Fint*, Director, West Virginia University Intensive English Program, *Tracy Dingess*, Senior Lecturer, Coordinator Computer Assisted Language Lab, West Virginia University Intensive English Program, *Perihan Celik*, Senior Lecturer WVU IEP, *Sue Workman Project Isaac Coordinator*, Valley Elementary School, **USA**

Who Are Waste Managers: A Story Of Constructed Identities And Professional Training And Educational Opportunities, *Dr. Georgina Davis*, EdD Candidate, School of Education and Professional Studies Griffith University, **Australia**

Transforming Solid Waste into Learning Experiences, *Adam Buckingham*, Teacher, Individual, **New Zealand**

A Comparative Study of Male and Female Coop Members in Solid Waste Management, *Victoria Pre*, Professor, Ateneo de Davao University, *Maribel Blones*, Employee, National Irrigation Administration, *Albert B. Jubilo*, Professor, Ateneo de Davao University, **Philippines**

The Nairobi Households' Willingness To Pay For Improved Solid Waste Management Service, *Afullo Augustine Otieno*, Lecturer, Kenyatta University, *Odhiambo Frank*, Lecturer, Water, Engineering And Development Centre, Loughborough University, **Kenya**

The Impact Of Waste Management On The Socio-Economic Development And Environment Protection In Rwanda Urban Settings, *Twayigize Pierre Colomb*, Activity supervisor, ACAPE-Association pour la Conservation l'Assainissement et la Protection de l'environnement, *Rumanyika Jacques Prevert*, Member of ACAPE, ACAPE-Association pour la Conservation l'Assainissement et la Protection de l'environnement, **Rwanda**

Women Participation in Municipal Solid Waste Sorting and Recycling, *Mervat El-Hoz*, Associate Professor, The University of Balamand, **Lebanon**

## **SESSION 4B**

### ***Industrial Wastes Management and Use***

Study of Two Sampling Procedures for the Valorization of Metal Hydroxide Sludge as Pollutant Trapper, *Laforest Valerie*, Assistant Professor, Ecole des mines de Saint-Etienne, *Perrin Loic*, PhD student, Ecole des mines de Saint-Etienne, *Bourgois Jacques*, Professor, Ecole des Mines de Saint-Etienne, **France**

Mechanisms Of Spinels Formation From Waste Metal Solids To Ceramic Products, *Kaimin SHIH*, Assistant Professor, Department of Civil Engineering, The University of Hong Kong, **Hong Kong, China**

Co-processing of Hazardous Industrial Sludge Containing Heavy Metals as Alternative Raw Material for Portland Cement Clinker, *Dr. Manaskorn Rachakornkij*, Assistant Professor, International Postgraduate Programs in Environmental and Hazardous Waste Management, Chulalongkorn University, *Ms.Thantip Punmatharith*, Ph.D Student, International Postgraduate Programs in Environmental and Hazardous Waste Management, Chulalongkorn University, **Thailand**

Utilization of Hazardous Anode Mud Generated During Zinc Electrowinning to Make Manganese Compounds and Lead-Pigment, *Dr. Navin Chandra*, Acting Director, Advanced Materials and Processes Research Institute, *Dr. S.S. Amritphale*, Scientist F, Advanced Materials and Processes Research Institute, *Deepti Pal*, SRF, Advanced Materials and Processes Research Institute, **India**

The Effect of Artificial Ageing on The Mechanical Behaviour and Microstructure of Industrial

Sludge Treated by the CFS Technique with Cement and Undergoing a Compacting at the Paste Phase, *Dr Mohamed Choura*, Professor, National School of Engineers, *Miss Maissoune KESKES*, student, Faculty of Sciences Sfax, *Dr Jamel ROUISS*, Professor, National School of Engineers, **Tunisia**

The Use of the Product Obtained on Grinding Kiln Rollers in the Production of Refractory Bodies, *Ossama Abdelbary Ibrahim*, Associate Professor, Faculty of Engineering, Cairo University, Chemical Engineering Dept., **Egypt**

#### **SESSION 4C**

##### ***New Approaches to Landfills***

Landfill Gas Management: Thermal Imaging - Taking the Earth's Temperature from the Air, *Shianna M. Peace*, Project Manager, L. Robert Kimball & Associates Inc., **USA**

Turning a Brownfield into a Greenfield at the Allied Waste Niagara Falls Landfill, *Bart A. Klettke P.E.*, District Office Mgr., GZA GeoEnvironmental of NY, **USA**

Carbon Credits from Landfills, *Dr. Heike Lueger*, Chief Environmental Scientist, Carbon Solutions America, **USA**

Knowledge Based Ranking Algorithm for Comparative Assessment of Post Closure Care Needs of Landfills, *Vivek Kumar*, MS Student, Florida International University, *Banu Sizerici*, PhD Student, Florida International University, *Berrin Tansel*, Assoc Prof, Florida International University, *Luis Prieto-Portar*, **USA**

#### **SESSION 4D**

##### ***Organic Wastes***

A Recommended Holistic Policy Framework for Vegetable Oil Waste Management in Egypt, *S.T.El Sheltawy*, Professor, Department of Chemical Engineering - Faculty of Engineering - Cairo University, *A. A. Refaat*, Teaching Assistant & Researcher, Department of Chemical Engineering - Faculty of Engineering - Cairo University & Center for Environmental Research and Studies (CERS) - Cairo University, **Egypt**

Nutritional Evaluation as Ruminant Feed to Curtail the Environmental Menace of Water Hyacinth in Nigeria, *Mako, Adejoke. A.*, Assistant Lecturer, Tai Solarin University of Education, Department of Agricultural Production and Management Sciences, *O. J Babayemi*, Senior Lecturer, University of Ibadan, Department of Animal Science, *A. O. Akinsoyinu*, Professor, University of Ibadan, Department of Animal Science, **Nigeria**

Farm System Modelling of Organic Amendments in Tasmania, Australia, *Dr. Shaun Lisson*, Farming Systems Scientist, CSIRO Sustainable Ecosystems, *Stephen Ives*, PhD Candidate, Tasmanian Institute of Agricultural Research, University of Tasmania, *Dr. Richard Doyle*, Lecturer in Soil Science, Tasmanian Institute of Agricultural Research, University of Tasmania, **Australia**

Heavy Metal Bioaccumulation in the Process of Vermicomposting, *G. A. Omrani*, Faculty Member, IA University, *A. Torabian*, Faculty Member, University of Tehran, *A. R. Karbassi*, Faculty Member, University of Tehran, *Khorasani, N. & Macki Aleagha, M.*, **Iran**

Energy and Chemicals from Biomass – Some Thoughts for 21st Century, *K. Gadgil*, C.S.O., IIT Delhi, India, **India**

6:00 p.m. – 7:00 p.m.                      6:30 p.m. – 7:30 p.m

**Posters 1**

**Reception**

## **POSTER SESSION 1**

Thermal Behavior and Durability of Recycle Asphalt Concrete, *Shih-Huang Chen*, Assistant Professor, Dept. of Traffic and Transportation Engineering and Management, Feng-Chia University, Taichung, Taiwan, *Jyh-Dong Lin*, Professor, Dept. of Civil Eng., National Central University, Taiwan, *Jui-Mao Wang*, Ph.D. Candidate, Dept. of Civil Eng., National Central University, Taiwan, 886-3-4227183, **Taiwan**

E-Construction Surplus Earth and Gravel Management System, *Shih-Huang Chen*, Assistant Professor, Dept. of Traffic and Transportation Engineering and Management, Feng-Chia University, Taichung, Taiwan, *Jyh-Dong Lin*, Professor, Dept. of Civil Eng., National Central University, Taiwan, *Wen-Yan Luo*, Master, Dept. of Civil Eng., National Central University, Taiwan, 886-3-4227183, **Taiwan**

Characterization Of Electroplating Sludge Prior/After Cao Based Solidification/Stabilization, *Nenad Mikulic*, Head of the department, Ministry for Environmental Protection and Physical Planning and Construction, *Visnja Orescanin*, Head of the laboratory, USKNI, Laboratory for applied nuclear analytics, *Ivanka Lovrencic*, Research scientist, Laboratory for Radioecology, Stefica Knapic and Gordana Medunic, **Croatia**

Evaluation of Incinerator Bottom Ash for Pavement with Road Test, *Jyh-Dong Lin*, Professor, Dept. of Civil Eng., National Central University, Taiwan, *Po-Hsun Sung*, Ph.D. Candidate, Dept. of Civil Eng., National Central University, Taiwan, *Jui-Mao Wang*, Ph.D. Candidate, Dept. of Civil Eng., National Central University, Taiwan, 886-3-4227183, **Taiwan**

Utilization of Water-Quenched Slag as Aggregate on Asphalt Concrete, *Jyh-Dong Lin*, Professor, Dept. of Civil Eng., National Central University, Taiwan, *Ming-Chin Yeh*, Ph.D. Candidate, Dept. of Civil Eng., National Central University, Taiwan, *Ching-Tsung Hung*, Assistant Prof., Kainan University, Taiwan, 886-3-4227183, **Taiwan**

The Removal of Basic Dyes from Wastewater onto Dead Water Hyacinth, *Gihan F. Malash*, Associate Professor, Chemical Engineering Dept. - Alexandria University, *Mohammad I. El-Khaiary*, Professor, Chemical Engineering Dept. - Alexandria University, **Egypt**

Wood Pellet Ash - A Potential Forest Fertilizer and Soil Conditioning Agent (A Case Study), *Matti Kuokkanen*, Post Graduate Student, Department of Chemistry, University of Oulu, *Toivo Kuokkanen*, Docent, Department of Chemistry, University of Oulu, *Hannu Nurmesniemi*, Dr., Environmental Manager, Stora Enso Oyj, *Risto Pöykiö*, **Finland**

Learning Experiences for Children from Waste Materials, *Adam Buckingham*, Teacher, Individual, **New Zealand**

Student-Powered Waste Characterization: A County/City/University Collaboration, *Bridget Bero*, Associate Professor, Northern Arizona University, *Matthew Roberts*, Student, Northern Arizona University, *John Biedenbarn*, Solid Waste Manager, Coconino County, *Matthew Morales*, **USA**

Changes in MSW (Municipal Solid Waste) Composition in the Czech Republic in Period from 2000 to 2008, *Petra Hnatukova*, Lecturer, Charles University in Prague, Faculty of Science, Institute of Environmental Studies, *Libuse Benesova*, Lecturer, Charles University in Prague, Faculty of Science, Institute of Environmental Studies, *Buhumil Cernik*, PhD Student, Charles University in Prague, Faculty of Science, Institute of Environmental Studies, *Zdenka Kotoulova*, **Czech Republic**

Study on Lactic Acid Production from Pretreated Lignocellulosic Waste, *Yuya Yamashita*, Doctor course student (D3), Tokushima University, *Chizuru Sasaki*, Assistant Professor, Tokushima University, *Yoshitoshi Nakamura*, Professor, Tokushima University, **Japan**

Total and leachable heavy metal concentrations in green liquor dregs from a causticizing process at a pulp mill, *Dr. Risto Pöykiö*, Environmental Protection Manager, City of Kemi, The Town Planning and Building Committee, *Dr. Hannu Nurmesniemi*, Environmental Manager, Stora Enso Oyj, *Dr. Toivo Kuokkanen*, Docent, University of Oulu, *Prof. Riitta L. Keiski and Mr. Matti Kuokkanen*, **Finland**

Release of Metals from Fluidized-Bed Boiler Bottom Ash at Different pH Values, *Dr. Risto Pöykiö*, Environmental Protection Manager, City of Kemi, The Town Planning and Building Committee, *Dr. Hannu Nurmesniemi*, Environmental Manager, Stora Enso Oyj, *Dr. Paavo Perämäki*, Professor, University of Oulu, *Dr. Hannu Rönkkömäki*, **Finland**

Poverty Alleviation Programme And Its Environmental Impact In A Developing Economy: A case Study Of Lagos City, Nigeria, *Mr. Emmanuel Igwe*, HSE Manager, Xtraintegrated Concepts Limited, **Nigeria**

Comparative Effects of Inorganic Chemicals and Organic Wastes in Immobilization of Heavy Metals in a Contaminated Soil Using Chemical Fractionation Method, *Ogundiran Mary Bosede*, Lecture II, University of Ibadan, *Oladele Osibanjo*, Professor, University of Ibadan, **Nigeria**

Integrated Processing of the Rice Hulls With Producing Materials of Polyfunctional Purpose, *Svetlana Yefremova*, Cand. Chem. Sci, Assistant Professor, Head of Silicocarbonous Composites Laboratory, The National Center for Mineral Raw Materials Complex Processing, *Yuriy Sukharnikov*, Dr., Professor, Chief Scientist, The National Center for Mineral Raw Materials Complex Processing, *Corby G. Anderson*, Ph.D., Director, The Center for Advanced Mineral and Metallurgical Processing, **Kazakhstan**

Waste Management Challenges in New Member States of EU, *Krzysztof Pikon*, Professor, Silesian University of Technology, **Poland**

Assessment of the economic profit of recycling – case study, *Mohamed Alwaeli*, Professor, Silesia University of Technology, **Poland**

Practicality of a High Value-Added Edible Mushroom Using Sweet Potato Shochu Lees, *Masahito Yamauchi*, Associate Professor, Department of Civil Engineering / Kagoshima National College of Technology, *Masayoshi Yamada*, Research Associate, Department of Civil

Engineering / Kagoshima National College of Technology, *Sumio MASUDA*, Professor,  
Department of Civil and Environmental Engineering / Miyazaki University, *Megumi  
Mihara, Mariko Sakamoto and Tadahiro Matsuda*, **Japan**

Development and Preliminary Evaluation of a Commercial Duty Composting System, *Dr.  
Michael A. Aloria*, Dean, College of Engineering, Architecture, Fine Arts & Computing Sciences,  
Batangas State University, **Philippines**

An Investigation of Seasonal Variation in Municipal Solid Waste Composition in Tropical Urban  
Environment: A Case Study of Abuja, Nigeria, *C. Ezeah*, Corresponding Author, University of  
Wolverhampton, *C.L.Roberts*, Author, University of Wolverhampton, *D.G.Watkin*, Author,  
University of Wolverhampton, *P.S.Philips, A. Odunfa*, **UK**

Public Relations An Educative Tool in Creating Positive Attitudinal Changes to Solid Waste  
Management Case Study of Edo State, Nigeria, *John-Jay Jesuorobo Asemota*, Primus Global  
Resources, **Nigeria**

Development of Bagasse Pelletizer, *Donnalyn C. Cabaces*, Asst. Director Engineering &  
Technology Research, Batangas State University, *Coleen M. Pernes, Mary Grace Bahillo,  
Timothy Joseph Dalanon*, **Philippines**

Case Study: Creating a Successful Public Outreach Tool for Minimum Cost with Maximum  
Results, *Laura J. Stiller*, Recycling Coordinator, Monongalia County Solid Waste Authority,  
*Barbara MacLennan*, Outreach Coordinator, Monongalia County Solid Waste Authority,  
*Gregory E. Adolfson*, Sustainability Officer, West Virginia Department of Environmental  
Protection, **USA**

Diesel Fuel Extender from Hog Manure, *Alfred H. Stiller, Ph.D.*, Professor, West Virginia  
University Department of Chemical Engineering, *Eugene Felton, Ph.D.*, Assistant Professor,  
West Virginia University Division of Animal Sciences, *Eric Johnson, Ph.D.*, Professor, West  
Virginia University Department of Mechanical & Aerospace Engineering, *Laura Eddy, Josh  
Parenti*, **USA**

Recycling Ambassadors, *Barbara MacLennan*, Senior Lecturer, West Virginia University  
Intensive English Program, *Stacy Fint*, Director, West Virginia University Intensive English  
Program, *Tracy Dingess*, Senior Lecturer, Coordinator Computer Assisted Language Lab, West  
Virginia University Intensive English Program, *Perihan Celik, Senior Lecturer WVU IEP, Sue  
Workman Project Isaac Coordinator, Valley Elementary School*, **USA**

Feather Waste Management Using Microbial Keratinase, *Rajni Singh*, Assistant Director,  
Amity University, **India**

Three Dimensional Groundwater Simulation Based on Estimation of Nitrogen  
Loading Amounts from Different Types of Nitrogen Source in Dairy Farms, *Kazuei Ishii*,  
Assistant Professor, Graduate school of engineering, Hokkaido University, *Toru  
Furuichi*, Professor, Graduate school of engineering, Hokkaido University, *Noboru  
Tanikawa*, Associate Professor, Graduate school of engineering, Hokkaido University,  
*Shogo Nitta*, **Japan**

Remediation of Toxic Metals: Biosorption-A Viable Technology, *Jyotsna Lal*, Reader,  
Chemistry Department Chirst Church Post Graduate college Kanpur UP. 208001 India,

*Mubashshara Beg*, Research Scholar, Christ Church P.G College Kanpur, Research Scholar, Christ Church P.G College Kanpur, **India**

## **TUESDAY, MARCH 17**

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. - 10:30 a.m.

**Sessions 5**

### **SESSION 5A**

#### *Ash*

Use of Fly Ash in Cement Industry in Turkey to Decrease CO2 Emissions, *Aysel T. Atimtay*, Professor, Middle East Technical University, Environmental Engineering Department, *Selda Ilksoy*, Researcher, Turkish Cement Manufacturers' Association, Council for Quality and Environment, *Kursat C. Ozcan*, Director, Turkish Cement Manufacturers' Association, Council for Quality and Environment, **Turkey**

The Fly Ash from Sewage Sludge Thermal Treatment Recovery as LECA for Constructed Wetlands, *Bialowiec Andrzej*, Adjunct; Ph.D, The University of Warmia and Mazury in Olsztyn, Department of Environmental Biotechnology, *Janczukowicz Wojciech*, Pro-Rector; Prof., The University of Warmia and Mazury in Olsztyn, Department of Environment Protection Engineering, *Krzemieniewski Mirosław*, Prof., The University of Warmia and Mazury in Olsztyn, Department of Environment Protection Engineering, *Gusiatin Zygmunt*, **Poland**

Fly Ash Potential And Its Consumption In Important Product Formation, *Dr.P.Dubey*, Sr.Lecturer, Bhagalpur University, *A P Verma*, Professor, Magadh University, **India**

Influence Of Fly Ash And Cement On Consolitation And Strenth Properties Of Expansive Very Soft Halic Mud, *N. Ugur TERZI*, Research Asist.(Ph.D), Aksaray University Eng. Facult, **Turkiye**

Removal of Heavy Metals from Contaminated Water, *Hossein Rostami*, Associate Prof., Philadelphia University, *Mozhgan Bahadory*, Research, Resource\_engine, **USA**

### **SESSION 5B**

#### *Policy and Regulations 1*

Global Impacts of American Electronics Recycling Laws, *Michelle Mulet Nicholls*, Project Manager, SCS Engineers, **USA**

Green Chemistry: Can Green Waste Replace Hazardous Waste?, *Thomas F. Vandenburg*, Partner, Dongell Lawrence Finney LLP, **USA**

Constitutional Policy Frameworks And Solid Waste Management In Nigeria, *Senator Iyiola Omisore, Rahila Ahmadu, Tunji Idowu, Nigeria*

A Company-level Adaptive Management Model Under the Implementation of Extended Producer Responsibility (EPR) in the Car Industry, *Yiping Zhao*, Research Fellow, Institute of Global Information and Telecommunication Studies, Waseda University, *Yingdi Xie*, Ph.d candidate, Institute of Global Information and Telecommunication Studies, Waseda University, *Jun Ohya*, Professor, Institute of Global Information and Telecommunication Studies, Waseda University, **Japan**

A Recommended Holistic Policy Framework For Vegetable Oil Waste Management In Egypt, *S.T.El Sheltawy*, Professor, Department of Chemical Engineering - Faculty of Engineering - Cairo University, *A.A.Refaat*, Teaching Assistant & Researcher, Department of Chemical Engineering - Faculty of Engineering - Cairo University & Center for Environmental Research and Studies (CERS) - Cairo University, **Egypt**

Environmental Benefits from MSW System Conversion According to EU Regulations, *Krzysztof Pikon*, professor, Silesian University of Technology, **Poland**

## SESSION 5C

### *Bioreactor and Innovative Landfills*

Economic Evaluation of an Aerobic Treatment Cell, *Richard Aho*, President, EWS LLC, *Brad Austin*, Facility Supervisor, MCSWMA, **USA**

Effect of Liquid Waste Addition on Overall Performance of Anaerobic Bioreactor Landfill, *Karthik R Manchala*, Engineer II, PBS&J, *John T. Novak*, Professor, Virginia Tech, **USA**

A Simple Method To Determine Volume Of Gas Produced And Biodegradation Settlement As A Function Of Time, *Joseph J. Lifrieri, P.E., C.P.G., P.P.*, Senior Vice President, Paulus Sokolowski and Sartor, LLC., *Dorairaja Raghu, Ph.D., P.E.*, Professor, Civil and Environmental Engineering Department, New Jersey Institute of Technology, **USA**

Struvite Formation in Leachate Recirculation Pipes of Bioreactor Landfills, *Madduma K.P.T. Somathilake*, M.Sc. Student, The University of Calgary, *Dr. Patrick Hettiaratchi*, Professor, The University of Calgary, **Canada**

Desiccation Induced Shrinkage Of Compacted Lateritic Soil Treated With Bagasse Ash, *Kolawole J. Osinubi*, Professor, Ahmadu Bello University, *Adrian O. Eberemu*, Lecturer, University of Agriculture, **Nigeria**

Treatment of Landfill Leachate by Rotating Biological Contactor Pilot Plant, *Dr. Saleh M. Al-Muzaini*, President, Board Trustee for Euro-Arab, *Tareq Al-Obled*, *Abdul-Aziz Al-Sherriadh*, Board Trustee for Euro-Arab, **Kuwait**

Influence of Moisture Content Regimes in Leachate Composition, *Liliana Marquez-Benavides*, Lecturer-Researcher, UMSNH, *MC Hernandez-Berriel*, Student, UMSNH,

*MC Mañon-Salas*, Student, *O. Buenrostro-Delgado*, *R. Alfaro-Cuevas-V*  
UMSNH, **Mexico**

## **SESSION 5D**

### ***Compost Utilization and Agricultural Wastes 2***

Compost and Vermicast as Sorption Material for Heavy Metals Removal, *Louernie F. de Sales*, Assistant Professor, Environmental Engineering Graduate Program, *Dale A. Fuertes*, Student, Environmental Engineering Graduate Program, *Gabriel P. Pamintuan*, Senior Lecturer, Mining, Metallurgical and Materials Engineering, *Lorenzo Antonio A. Lim*, **Philippines**

Compost Bioremediation of Petroleum Based Contaminated Soil, *Maria Isabel Alviar*, Chemist, QA/QC, Duaodua APT Waste Management Sdn. Bhd., **Brunei**

Production and Utilisation of Anaerobic Digestate Compost From Domestic Wastes for the Improvement of Soil Quality, *Dr Joseph C. Akunna*, Senior Lecturer, Urban Water Technology Centre, University of Abertay Dundee, *Mr Yusuf Abdullahi*, PhD Student, Urban Water Technology Centre, University of Abertay Dundee, **United Kingdom**

Manufacture of Organic Fertiliser from Poultry Slaughterhouse Waste Rendering Plant Sludge Using Delta-D Technology, *S.A.S. Perera*, Senior Lecturer, Department of Chemical and Process Engineering, University of Moratuwa, **Sri Lanka**

Conversion of Coconut Water Waste Produced in Desiccated Coconut Mills into Organic Fertiliser Using Delta-D Technology, *S.A.S. Perera*, Senior Lecturer, Department of Chemical and Process Engineering, University of Moratuwa, **Sri Lanka**

10:30 a.m. - 10:45 a.m.

**Break**

10:45 a.m. – 12:30 p.m.

**Sessions 6**

## **SESSION 6A**

### ***Landfill Studies***

Landfill Leachate Plume Forensics Using Minor Ions, *Robert D. Mutch, Jr.*, *P.Hg.*, *P.E.*, Principal Groundwater Hydrologist, HydroQual, Inc., *Richard F. Carbonaro*, *Ph.D.*, Associate Professor, Manhattan College, **USA**

Tritium in MSW Leachate, Gas, and Gas Condensate: Sources, Risks, Management, *Robert D. Mutch, Jr.*, *P.Hg.*, *P.E.*, Principal Groundwater Hydrologist, HydroQual, Inc., *John Mahony*, *Ph.D.*, Professor, Manhattan College, **USA**

Landfill Site Selection for Municipal Solid Waste Using Geographic Information System and Multi-Criteria Decision Analysis, *Anurag Ohri*, Lecturer, Institute of Technology, Banaras Hindu University, *Dr. Prabhat Kumar Singh*, Reader, Institute of Technology, Banaras Hindu University, **India**

Measurement of Representative Landfill Gas Migration Samples at Landfill Perimeters: A Case Study, *Breda M. Kiernan*, Postdoctoral Fellow, Dublin City University, *Cormac Fay*, Research Assistant, Dublin City University, *Stephen Beirne*, Postdoctoral Fellow, Dublin City University, *Dermot Diamond*, **Ireland**

Landfill Operations Go High-Tech with GIS, *Alfred M. Yates, P.E.*, Senior Project Manager, Brickhouse Environmental, *Michael R. Cromer, P.G.*, Project Manager, Brickhouse Environmental, **USA**

An Investigation On Geotechnical Problems of Uncontrolled Municipal Solid Waste Landfill in The Province of Zonguldak, Turkey, *Omer Faruk Capar*, Assistant Professor, Zonguldak Karaelmas University, *Ismail Hakki Ozolcer*, Assistant Professor Dr., Zonguldak Karaelmas University, *Yilmaz Yildirim*, Associate Professor Dr., Zonguldak Karaelmas University, **Turkey**

Development of a Soil-Property Based Permeameter to Ensure Quality Construction of Clay Liners in Waste Containment Structures, *Frank Atuahene*, Assistant Professor, Georgia Southern University, **USA**

## **SESSION 6B**

### ***Policy and Regulations 2***

Regulatory-Induced Innovation in Waste Technology and Management: Economics and Legal Challenges, *Molly Macauley*, Senior Fellow, Resources for the Future, **USA**

Municipal Solid Waste Problems in Developing Countries: Policy Solutions, *Jayanthi Sothirajah*, Ph.D. Student, *Millicent Addo*, Ph.D. Candidate, Southern University, **USA**

The New European Directive on Spent Batteries and Accumulators, *Isabel Tomé de Andrade*, Head of Department, Portuguese Environment Agency, **Portugal**

Solid Waste Management in the United States and Europe: A Comparative Analysis of Policies, *Millicent Addo*, Ph.D Candidate, Southern University, *Jayanthi Sothirajah*, Ph.D Student, Southern University, **USA**

Waste Management Strategies in Finland, *Jouko Saarela*, Dr.Tech., Finnish Environment Institute, **FINLAND**

## **SESSION 6C**

### ***Waste Collection***

GIS-based Tools for Managing GPS Data from Solid Waste Collection Operations, *Thuy Nguyen*, PhD Candidate, Dept. of Civil Engineering, University of New Brunswick, *Bruce G. Wilson*, Associate Professor, Dept. of Civil Engineering, University of New Brunswick, **Canada**

A GIS-Based Simulation Model of Solid Waste Collection Operations, *Thuy Nguyen*, PhD Candidate, Dept. of Civil Engineering, University of New Brunswick, *Bruce G. Wilson*, Associate Professor, Dept. of Civil Engineering, University of New Brunswick, **Canada**

## SESSION 6D

### *Use of Waste in Construction 1*

Effective Use of the Mudflow Earth and Sand in Sakurajima as Fine Aggregate for Concrete, *Masatoshi Ikeda*, Assistant Professor, Department of Civil Engineering / Kagoshima National College of Technology, *Takao Nakazawa*, Professor, University of Miyazaki, *Tanotu Utitani*, Professor, Kagoshima National College of Technology, **Japan**

Development of Recycling Exemptions and Hot Mix Asphalt Specification for Utilizing Recycled Post Consumer Asphalt Shingles, *R. Christopher Williams*, Associate Professor, Iowa State University, *Debra Haugen*, President, Sustainable Green Technologies, LLC, **USA**

Utilization Of Waste Plastics Coated Aggrgate for Flexible Pavement and Easy Disposal Waste Plastics, *Dr. R. Vasudevan*, Dean ECA, Thiagarajar College of Engineering, *Dr. S.k. Nigam*, Scientist'c', Central Pollution Control Board, *A. Ramalinga Chandra Sekar*, Senior Research Fellow, Department of Chemistry, Thiagarajar College of Engineering, *4. R. Velkennedy*, Ass. Prof. Department of Civil Engineering, Thiagarajar College of Engineering, *5. B. Sundarakannan*, Project Associate, Department of Chemistry, Thiagarajar College of Engineering., **India**

The Use of Oil Cuttings Waste in the Manufacture of Clay Bricks, *Hanan Hassan El-Sersy*, Associate Professor, Chemical Engineering Department, Faculty of Engineering, Cairo University, Cairo, **Egypt**

Assessment of Mold Resistance Characteristics of Recycling Building Products, *Jyh-Tyng Yau*, Researcher, Architecture and Building Research Institute, Ministry of the Interior, Taiwan., *Shih-Chi Lo*, Researcher, Architecture and Building Research Institute, Ministry of the Interior, Taiwan., *Jyh-Dong Lin*, Professor, National Central University, **Taiwan (R.O.C.)**

Use of Collagen Nanofibrils Made from Waste Corium in Concrete, *Nasreldin Fadelallah*, graduate student, Widener University, *Gennaro Maffia*, Professor of Chemical Engineering, Widener University, **USA**

12:30 p.m. – 1:30 p.m.

**Poster Session 2**

## POSTER SESSION 2

Municipal Waste - Environmental and Social Problem of the Future, *Libuse Benesova*, Lecturer, Charles University in Prague, Faculty of Science, Institute of Environmental Studies, *Petra Hnatukova*, Lecturer, Charles University in Prague, Faculty of Science, Institute of Environmental Studies, *Buhumil Cernik*, PhD Student, Charles University in Prague, Faculty of Science, Institute of Environmental Studies, *Zdenka Kotoulova*, **Czech Republic**

E-Construction Surplus Earth And Gravel Management System, *Shih-Huang Chen*, Assistant professor, Dept. of Traffic and Transportation Engineering and Management, Feng-Chia University, Taichung, Taiwan, *Jyh-Dong Lin*, Professor, Dept. of Civil Eng., National Central University, Taiwan, *Wen-Yan Luo*, Master, Dept. of Civil Eng., National Central University, **Taiwan**

Procedures For Environmental And Economic Assessment Of Automobile Industry Waste Recovery, *Marisa Borges*, Students, UFSC, *Marisa Soares Borges*, Ph.D. student of Chemical Engineering, UFSC, *Humberto Gracher Riella*, PhD Ing., UFSC, **BRAZIL**

Study On Concrete Made With Thermal Power Plant Sludge Ash, *Fang-Chih Chang*, The Instrument Center of National Cheng Kung University, National Cheng Kung University, *Chun-Han Ko*, School of Forest and Resources Conservation, National Taiwan University, *Jyh-Dong Lin*, Department of Civil Engineering, National Central University, *Chen-Chiu Tsai*, *Kuen-Sheng Wang*, **Taiwan, R.O.C.**

Utilization Of Water-Quenched Slag As Aggregate On Asphalt Concrete, *Jyh-Dong Lin*, Professor, Dept. of Civil Eng., National Central University, Taiwan, *Ming-Chin Yeh*, Ph.D. Candidate, Dept. of Civil Eng., National Central University, Taiwan, *Ching-Tsung Hung*, Assistant Prof., Kainan University, Taiwan, **Taiwan**

Thermal Behavior And Durability Of Recycle Asphalt Concrete, *Shih-Huang Chen*, Assistant professor, Dept. of Traffic and Transportation Engineering and Management, Feng-Chia University, Taichung, Taiwan, *Jyh-Dong Lin*, Professor, Dept. of Civil Eng., National Central University, Taiwan, *Jui-Mao Wang*, Ph.D. Candidate, Dept. of Civil Eng., National Central University, Taiwan, **Taiwan**

Solid Urban Waste Management: The Rio de Janeiro Municipality Case, *Denize Dias de Carvalho*, Associate Professor, Department of Biochemical Engineering/EQ/UFRJ, *Maria Isabel de M.M. Campos*, CEFET/Campos/Rio de Janeiro, *Rodrigo Garret*, EQ/UFRJ, *Celio Maia*, *Selma G. F. Leite*, **Brasil**

SGA - Evolution Analysis in the Pneumatic Manufacturing Process of Michelin S/A, *Francine E Zogbi*, Chemical Engineering, Campo Grande/RJ/Michelin S/A, *Denize Dias de Carvalho*, Associate Professor, Department of Biochemical Engineering/EQ/UFRJ, *Josimar R. de Almeida*, Associate Professor, Department of Civil Engineering/EE/UFRJ, **Brasil**

Evaluation Of Incinerator Bottom Ash For Pavement With Road Test, *Jyh-Dong Lin*, Professor, Dept. of Civil Eng., National Central University, Taiwan, *Po-Hsun Sung*, Ph.D. Candidate, Dept. of Civil Eng., National Central University, Taiwan, *Jui-Mao Wang*, Ph.D. Candidate, Dept. of Civil Eng., National Central University, Taiwan, **Taiwan**

Effect of Alkaline Pretreatment of Food Waste on Solubilization and Biodegradability for Anaerobic Digestion, *Jae Young Kim*, Professor, Seoul National University, *Che-yun Eom*, Graduate Student, Seoul National University, *Lim, Jae-yong*, Graduate Student, Seoul National University, *Dr. Cho, Han Sang*, **Republic of Korea**

Quality Prediction of Board Boxes Made from Recycled Paper, *Angeles Blanco Suarez*, Full Professor, Complutense University of Madrid, *Peter Hansen*, Researcher, STFI-PACKFORSK, *Patricio Lopez*, Project manager, Complutense University of Madrid, *Lars Thomsson*, *Jose Vicente Oliver*, *Stergios Adamopoulos*, **Spain**

Composition of Solid Waste in Berd, Armenia, *Patricia Butler*, Research Associate, Michigan Technological University School of Forest Resources and Environmental Science, *Blair Orr*, Professor, Michigan Technological University School of Forest Resources and Environmental Science, **USA**

MICROBIOLOGICAL QUALITY OF OBOHIA STREAM AT AHIAZU MBAISE NIGERIA, *Agbakwuru, C.W.*, PhD/Research Student, Imo State University, Owerri, **Nigeria**

Temporary Frost Protection of a Landfill Liner Prior to Landfilling, *Andrew T. Rose*, Associate Professor, University of Pittsburgh at Johnstown, **USA**

A Study on Dioxins Content in Fly Ash Discharged from MSWIs in Taiwan, *Wei-Shing Hu*, Ph.Degree Candidate, National Taipei University of Technology, *Yu-Min Chang*, professor, National Taipei University of Technology, *Chien-Chung Liu*, Ph.Degree Candidate, National Taipei University of Technology, *Chao-Yang Hung*, *Wen-Pin Fan* and *Wen-Chien Dai*, **Taiwan**

A Study on Dioxins Content in Fly Ash Discharged from MSWIs in Taiwan, *Wei-Shing Hu*, Ph.Degree Candidate, National Taipei University of Technology, *Yu-Min Chang*, professor, National Taipei University of Technology, *Chien-Chung Liu*, Ph.Degree Candidate, National Taipei University of Technology, *Chao-Yang Hung*, *Wen-Pin Fan* and *Wen-Chien Dai*, **Taiwan**

Application of Reutilization Technology to Wastes from Optoelectronic Industry, *Wei-Ting Liu*, Ph.D. Candidate, Graduate Institute of Environmental Engineering, National Taiwan University, *Kung-Cheh Li*, Professor, Graduate Institute of Environmental Engineering, National Taiwan University, **Republic of China (R.O.C.)**

Effectiveness of Virgin Polymer Modifiers in Improving the Performance of Asphalt-Rubber Applications, *Magdy Abdelrahman*, Assistant Professor, North Dakota State University, **USA**

Compost and Vermicast as Sorption Material for Heavy Metals Removal, *Louernie F. de Sales*, Assistant Professor, Environmental Engineering Graduate Program, *Dale A. Fuertes*, Student, Environmental Engineering Graduate Program, *Gabriel P. Pamintuan*, Senior Lecturer, Mining, Metallurgical and Materials Engineering, *Lorenzo Antonio A. Lim*, **Philippines**

RDL Treated Sludge: A Biosolids Additive for Organic Fertilizer, *Engr. Agnes Filomena S. Alolod*, Pollution Control Officer, RDL Pharmaceutical Laboratory, Inc., *Dr. Albert B. Jubilo*, Professor, Ateneo de Davao University, Engineering and Architecture Division, *Mr. Lawrence A. Limjuco*, Chemical Engineering Student, Ateneo de Davao University, Engineering and Architecture Division, **Philippines**

Analysis of Barriers Affecting the Adoption of a Sustainable Municipal Solid Waste Management System in Nigeria, *C. Ezeah*, Corresponding Author, University of Wolverhampton, *C.L.Roberts*, Author, University of Wolverhampton, *D.G.Watkin*, Author, University of Wolverhampton, *P.S.Philips*, *A. Odunfa*, **UK**

Compost Bioremediation of Petroleum Based Contaminated Soil, *Maria Isabel Alviar*, Chemist, QA/QC, Duaodua APT Waste Management Sdn. Bhd., **Brunei**

Assessment of Mold Resistance Characteristics of Recycling Building Products, *Jyh-Tyng Yau*, Researcher, Architecture and Building Research Institute, Ministry of the Interior, Taiwan., *Shih-*

*Chi Lo*, Researcher, Architecture and Building Research Institute, Ministry of the Interior, Taiwan., *Jyh-Dong Lin*, Professor, National Central University, **Taiwan (R.O.C)**

Development of Recycling Exemptions and Hot Mix Asphalt Specification for Utilizing Recycled Post Consumer Asphalt Shingles, *R. Christopher Williams*, Associate Professor, Iowa State University, *Debra Haugen*, President, Sustainable Green Technologies, LLC, **USA**

RDL Treated Sludge: A Biosolid Additive for Organic Fertilizer, *Engr. Agnes Filomena S. Alolod*, Pollution Control Officer, RDL Pharmaceutical Laboratory, Inc., *Dr. Albert B. Jubilo*, Professor, Ateneo de Davao University, Engineering and Architecture Division, *Mr. Lawrence A. Limjuco*, Chemical Engineering Student, Ateneo de Davao University, Engineering and Architecture Division, *Engr. John F. Baynosa*, Supervising Water Utilities Management Officer, Davao City Water District, **Philippines**

Indoor Pollution by Tobacco products and Identification of Nicotine by NMR, *Jyotsna Lal*, Reader, Chemistry Department Christ Church Post Graduate college Kanpur UP. 208001 India, *Mahesh Chandra*, Research Scholar, Christ Church P.G College Kanpur, **India**

Use of Waste Glass in the Degradation of Waste Polyolefin, *Deepak Pant*, Assistant Professor, Urban Waste Management Laboratory, Dolphin (P.G.) Institute of Biomedical and Natural Science, **India**

Influence of wood on the pyrolysis of poultry litter, *Nii Ofei D. Mante*, Graduate student, Virginia Tech, Biological systems Eng. Department, *Dr. Foster A. Agblevor*, Associate Professor, Virginia Tech, Biological systems Eng. Department, **USA**

1:30 p.m. – 2:30 p.m.

**Luncheon**

2:30 p.m. – 4:40 p.m.

**Sessions 7**

## **SESSION 7A**

### ***Environmental Assessment 1***

Global Warming And Solid Waste Management In A Developing Nation: The Case Of Southern Nigeria, *Jerry Uhuo*, Researcher, Univeristy of Stuttgart, *Ogunbiyi T. A, Fatai Jimoh*, **Nigeria**

A GIS Approach to Waste Management and Recycling in New York State, *Ashraf Ghaly*, Professor, Union College, **USA**

Waste Burning as a Source of Dioxins in the Republic of Armenia, *Khachatur Khachatryan*, MS Degree Student, Yerevan State University, **Republic of Armenia**

The Influence of Increased Use of Compact Fluorescent Lighting on Environmental Mercury Emissions, *Dr. John F. Katers*, Associate Professor, University of Wisconsin-Green Bay, *Richard Winter*, Environmental, Health, & Safety Affairs, RR Donnelley, *Adam Snippen*, Undergraduate,

University of Wisconsin-Green Bay, **USA**

Assessment of Health Risks from a Closed Landfill with FRAMES Model Using Groundwater and Leachate Monitoring Data, *Banu Sizirci*, PhD Student, Florida International University, *Vivek Kumar*, MS Student, Florida International University, *Berrin Tansel*, Assoc Prof, Florida International University, *Luis Prieto-Portar*, *Debra Reinhart*, *Asawari Joshi*, **USA**

Sustainable Remediation - Understanding the "Carbon Footprint" Impact of Remediation Efforts of Retail Service Stations in NJ, *Walter Hufford*, PG, Environmental Business Manager, Atlantic Richfield Company - A BP affiliated Company, **USA**

## **SESSION 7B** *Utilization of Wastes*

Co-Processing of Plastic Waste with Coal in the Cement Kiln, *Sant Prasad Gautam*, Chairman, Madhya Pradesh Pollution Control Board, *P.S. Bundela*, Regional Officer, Madhya Pradesh Pollution Control Board, *Vivek Chawla*, Director, ACC Kymore Cement Works, **India**

Procedures For Environmental And Economic Assessment Of Automobile Industry Waste Recovery, *Marisa Borges*, Students, UFSC, *Marisa Soares Borges*, Ph.D. student of Chemical Engineering, UFSC, *Humberto Gracher Riella*, PhD Ing., UFSC, **BRAZIL**

Energy Recovery From Solid Waste in Cement Rotary Kiln and its Environmental Impact, *Sant Prasad Gautam*, Chairman, Madhya Pradesh Pollution Control Board, *R . K. Jain*, Member Secretary, Madhya Pradesh Pollution Control Board, *Dr. B. N. Mohapatra*, General Manager, Vikram Cement, *R. M. Gupta*, *S. M. Joshi*, **India**

Charecterisation of Activated Carbon Prepared from Rubber Wood Industries, *S. Shamshath Begum*, Senior Research Fellow, Central Leather Research Institute, *R.A.Ramanujam*, Scientist F, Central Leather Research Institute, Adyar, chennai 20, *S.Sadulla*, Scientist F, Central Leather Research Institute, Adyar, chennai 20, *Lima Rose Miranda*, **India**

Stabilization of Clay Soils with Lime and Ground Granulated Blast Furnace Slag (GGBS), *Omer Faruk Capar*, Assistant Professor, Zonguldak Karaelmas University, *Aydin Kavak*, Assistant Professor Dr., Kocaeli University, *Gamze Bilgen*, Instructor, Zonguldak Karaelmas University, **Turkey**

Use of Waste Glass in the Degradation of Waste Polyolefin, *Deepak Pant*, Assistant Professor, Urban Waste Management Laboratory, Dolphin (P.G.) Institute of Biomedical and Natural Science, **India**

Use of Scrap Tires in Cement Industry in Turkey, *Aysel T. Atimtay*, Professor, Middle East Technical University, Environmental Engineering Department, *Emre Gungor*, Head of Environmental Division, Turkish Cement Manufacturers' Association, Council for Quality and Environment, *C. Derinoz*, **Turkey**

Dynamic Response Of Composites, *Dr Samir Saad*, Associate Professor, Housing Building Research Center, **Egypt**

## SESSION 7C

### *Construction and Demolition Wastes*

Characterization and Valorization of C&D waste: Flexural Strength of Laminated Waste Concrete/Normal Concrete Beams, *Samy Antit*, Lecturer-Researcher, Laboratoire de Génie Civil (L.G.C) - Ecole Nationale d'Ingénieurs de Tunis, *Hedi Hassis*, Professor, Laboratoire de Génie Civil (L.G.C) - Ecole Nationale d'Ingénieurs de Tunis, *FIORIO*, Associate professor, université de Cergy-Pontoise, **Tunisia**

Construction and Demolition Waste Management in Romania, *Cristina Iacoboaia*, Lecturer, Technical University of Civil Engineering of Bucharest, *Oana Luca*, Associate Professor, Technical University of Civil Engineering of Bucharest, **Romania**

## SESSION 7D

### *Sludge*

Effect of Sewage Sludge Amendment on Growth, Biomass, Heavy Metal Accumulation and Yield of Mung Bean, Rice and Wheat Plant, *Dr. Madhoolika Agrawal*, Professor in Botany, Banaras Hindu University, Varanasi, India, *R. P. Singh*, Senior Research Fellow, Banaras Hindu University, **India**

RDL Treated Sludge: A Biosolid Additive for Organic Fertilizer, *Engr. Agnes Filomena S. Alolod*, Pollution Control Officer, RDL Pharmaceutical Laboratory, Inc., *Dr. Albert B. Jubilo*, Professor, Ateneo de Davao University, Engineering and Architecture Division, *Mr. Lawrence A. Limjuco*, Chemical Engineering Student, Ateneo de Davao University, Engineering and Architecture Division, *Engr. John F. Baynosa*, Supervising Water Utilities Management Officer, Davao City Water District, **Philippines**

## SESSION 7E

### *Specialized Wastes*

Composition of Waste in Hospitals, *Shyam Lal Arora*, Asst. Prof./Research Scholar, AFSET Faridabad/IIT, *Dr. S.N. Garg*, Senior Faculty, IIT Delhi, *Varun Kumar Arora*, student PG, M.D.UniversityRohtak, **India**

Minimization/Differentiation of Waste in Hospital, *Shyam Lal Arora*, Research scholar, IITDelhi, *Dr. S.N. Garg*, Senior Faculty, IIT Delhi, *Varun Kumar Arora*, student PG, M.D.UniversityRohtak, **India**

The Hospital Assessment Tool: An Integrated Solution To Evaluate And Reduce Solid Medical Waste Generation, *Matthew Franchetti*, Assistant Professor and Director of the Environmentally Conscious Design and Manufacturing Lab, The University of Toledo, College of Engineering, **USA**

One-step Hydrothermal Process of Separating and Crystallizing ZnO from Hazardous Electric Arc Furnace Dust, *Bing-Sheng Yu*, Associate Professor, Department of Materials and Mineral

Resources Engineering, National Taipei University of Technology, *Yan-Ting Lin*, graduate student, Department of Materials and Mineral Resources Engineering, National Taipei University of Technology, *Yuh-Ruey Wang*, Associate Professor, Department of Materials and Mineral Resources Engineering, National Taipei University of Technology, *Hung-Hsiang Shao*, **Taiwan, R.O.C.**

The Development of a Quantitative Sulphate Attack Test For Binders Used In Mine Backfill, *Shahé Shnorhokian*, PhD student, Department of Mining Engineering, McGill University, *Ferri P Hassani*, Professor, Department of Mining Engineering, McGill University, *Jacques Ouellet*, Manager of Technical Services, Thyssen Mining, **Canada**

Traditional Medicine in Waste Bottles: Prospects of an Integrated Waste Bottles Management, *Felix Chijioko Ekejiuba*, Chief Engineer, PAL Breweries Limited, *Nwokoma Cosmos*, Sinime Paulker P.O.Box 192, No.4 Chief Senator Paulker Close, Opolo, Yenegoa, Bayelsa State, *Michael Iwuchukwu*, **Nigeria**

Application of Reutilization Technology to Wastes from Optoelectronic Industry, *Wei-Ting Liu*, Ph.D. Candidate, Graduate Institute of Environmental Engineering, National Taiwan University, *Kung-Cheh Li*, Professor, Graduate Institute of Environmental Engineering, National Taiwan University, **Republic of China (R.O.C.)**

Studies on the Effects and Management of Mining and Mineral Wastes, *P.Raja Rao*, Associate Prof., Osmania University, **India**

## **SESSION 7F**

### ***Small U.S. Communities and Solid Waste Issues - Interactive Short Paper Session***

Can Gobs Mean Jobs in Small and Rural Mining Communities? Coal By-Product Innovation, *Norm Caplan*, Coal Innovations, *Alfred Stiller*, PhD, Coal Innovations, **USA**

U.S. Small Communities, Solid Waste Policy, and Sustainable Solutions, *Laura Stiller*, Monongalia County Solid Waste Authority, WV, *Sue Bergeron*, Department of Geology and Geography, West Virginia University, *Jesse Rouse*, Department of Geology and Geography, West Virginia University, *Frank Lafone*, Department of Political Science, West Virginia University, **USA**

Inner City Solutions to Small Town Problems: The Shelby County Environmental Court, *Judge Larry E. Potter*, The Shelby County Environmental Court, *John C. Cameron*, The Shelby County Environmental Court, **USA**

4:40 p.m. – 4:55 p.m.

**Break**

4:55 p.m. – 7:00 p.m.

**Sessions 8**

## SESSION 8A

### *Use of Wastes in Construction 2*

Engineering Properties of Concrete Containing Large Volume of Recycled Tire Rubber, *Bashar S. Mohammed*, Senior Lecturer, Universiti Tenaga Nasional, *Najwa Juaini*, Research assistant, Universiti Tenaga Nasional, *N/A*, **Malaysia**

Freeze-Thaw Behavior of Pervious Rubberized Concrete, *Ashraf Ghaly*, Professor, Union College, *Andrew Heiser*, Student, Union College, **USA**

Study On Concrete Made With Thermal Power Plant Sludge Ash, *Fang-Chih Chang*, The Instrument Center of National Cheng Kung University, National Cheng Kung University, *Chun-Han Ko*, School of Forest and Resources Conservation, National Taiwan University, *Jyh-Dong Lin*, Department of Civil Engineering, National Central University, *Chen-Chiu Tsai*, Kuen-Sheng Wang, **Taiwan, R.O.C.**

Recycling of Used Gypsum Molds Used in Slip Casting of Ceramic Ware, *Magdi Abadir*, Professor, *Hanan H. El Sersy*, Associate Professor, Chemical Engineering Department, Faculty of Engineering, Cairo University, *Shakinaz A. El Sherbiny*, Assistant Professor, Chemical Engineering Department, Faculty of Engineering, Cairo University, **Egypt**

Effectiveness of Virgin Polymer Modifiers in Improving the Performance of Asphalt-Rubber Applications, *Magdy Abdelrahman*, Assistant Professor, North Dakota State University, **USA**

Concrete Made With Fine Recycled Aggregates: An Experimental Investigation From Libya, *H. Jalal*, engineer, University of Al Jabal Al Gharby, *E. Musa*, engineer, University of Al Jabal Al Gharby, *M. Balgho*, engineer, University of Al Jabal Al Gharby, *Salah Sarhat*, Former lecturers at high institute for comprehensive professions in Ghadames in Libya, and a PhD candidate at Carleton University in Canada., **Libya**

Beneficial Use of Recycled Materials in Construction, *Pickett T Simpson*, Research Associate, Rensselaer Polytechnic Institute, *Thomas F Zimmie*, Professor, Rensselaer Polytechnic Institute, **USA**

## SESSION 8B

### *Environmental Assessment 2*

Heavy Metal Release from WEEE and Batteries in MBT and Landfills, *Alexander Janz*, Dipl.-Ing., Research Assistant, Associate Lecturer, Dresden University of Technology, Institute of Waste Management and Contaminated Site Treatment (IAA), *Bernd Bilitewski*, Prof. Dr.-Ing. habil. Dr. h. c., Executive Director IAA, Dresden University of Technology, Institute of Waste Management and Contaminated Site Treatment (IAA), **Germany**

Identification Of Estrogenic Compounds Emitted From The Combustion Of Computer Printed Circuit Boards In Electronic Waste, *Clyde Owes*, Chemist, Environmental Protection Agency, **USA**

Municipal Solid Waste Management Decisions and Implications for Greenhouse Gas Emissions: the Case of Onondaga County, NY, *Fred Owusu-Ansah*, Ph.D. Candidate, State University of

New York, College of Environmental Science and Forestry, *Tom Rhoads*, Executive Director, Onondaga County Resource Recovery Agency (OCRRA), *Donald J. Hughes*, Onondaga Environmental Institute, *Richard C. Smardon*, **USA**

Zero Waste and New York's Climate Footprint, *Marjorie J Clarke*, Deputy Director, Center for Reclamation, Reuse and Recycling of Materials for Urban Sustainability, **USA**

## **SESSION 8C**

### ***Waste Management in Developing Regions***

Analysis of Barriers Affecting the Adoption of a Sustainable Municipal Solid Waste Management System in Nigeria, *C. Ezeah*, Corresponding Author, University of Wolverhampton, *C.L.Roberts*, Author, University of Wolverhampton, *D.G.Watkin*, Author, University of Wolverhampton, *P.S.Philips*, *A. Odunfa*, **UK**

Nairobi City's Household Solid Waste Management Problems, *Judice Kemunto Maikara*, Community Nurse, Government of Kenya, Ministry of Health, **Kenya**

Appropriateness Of A Fully Engineered Solid Waste Management Facility An Sub Saharan Africa: A Case Of Maun, Botswana, *Afullo Augustine Otieno*, LECTURER, KENYATTA UNIVERSITY, **Kenya**

Solid Waste Management and Material Recovery in an Urban area in India- A Case study of Tirupati Municipal Corporation, *P. Lakshmi Narayana Prasad*, Assistant Engineer, Rural Water Supplies & Sanitation, *Dr. J. Karthikeyan*, Professor and Head, S. V. U. College of Engineering, *Dr. R. C. Srivastava*, Professor and Head, Sanitary Engineering, **India**

Status of Solid Waste Management In Nepal With Particular Focus On Kathmandu Valley, *Kamal Mohan Pokhrel*, Deputy General Manager, Solid Waste Management and Resource Mobilisation Centre, Ministry of Local Development, *Babu Ram Sharma*, Ministry of Local Development, **Nepal**

## **SESSION 8D**

### ***Modeling***

Object-Oriented Modelling Of The Integrated Waste Management Systems Using Rapid Application Development (RAD) Methodology, *Krzysztof Gaska*, professor, Silesian University of Technology, *Agnieszka Generowicz*, professor, Cracovian Technical University, **Poland**

Application Of Moduelo2 To Evaluate Hydrologic Processes In A Landfill In Southern Brazil, *Carolina M. Tozetto*, Junior Engineer, Curitiba's Municipal Secretaria of Environment, *M. Crstina B. Braga*, Professor, Parana Federal University, **BRAZIL**

Multi-Criteria Analysis as an Efficient Tool in Strategic Waste Management Planning, *Goran Vego*, designer, Civil Engineering Institute of Croatia, *Savka Kucar-Dragicevic*, Director, Croatian Environmental Agency, *Natalija Koprivanac*, Professor, Faculty of Chemical Engineering and Technology, **Croatia**

A "SMART" Model for Effective Improvement of Waste Management Systems, *Germaine Saad*, Professor, Widener University, **USA**

## **SESSION 8E** ***Planning Studies***

Using Solid Waste to Solve the Chronic Problem of Domestic Energy Accessibility in Sub-Saharan Developing Countries, *Moussa Dogo Ali*, Consultant, Gestion et Valorisation des Déchets GVDsa, *Dr. Werner Anton*, Researcher, Centre for Environmental Sciences, UZU-Halle, *Prof. Dr.-Ing.habil. Rainer Schnabel*, Senior Lecturer & Researcher, Centre for Environmental Sciences, UZU-Halle, **Niger**

Improving Solid Waste Disposal in Sub-Saharan Developing World, *Moussa Dogo Ali*, Consultant, Gestion et Valorisation des Déchets GVDsa, *Dr. Sani Mahaman Laouali*, Researcher - Lecturer, Université AbdouMoumouni Djoffo, *Moussa Mamoudou*, Technician, Gestion et Valorisation des Déchets GVDsa, **Niger**

Driving Sustainable Waste Management: Tools For Assessing The Suitable Sites For Waste Management Facilities In The Midlands Of England, *Prof. Paul Phillips*, University of Northampton, **UK**

Studies Compare Between Wastewater Treatments Technologies, *Lilyan yaqub matti*, Assisted teacher, Environmental and pollution control research center, *Huda Abd Al-Slam Alhafidh*, engineering, Environmental and pollution control research center, **Iraq**

An Empirical Study on Energy Consumption and Saving Potentials for China from 1990 till 2006, *Yiping Zhao*, Research Fellow, Institute of global information and telecommunication studies, *Chunyou Wu*, Professor, School of Management, Dalian University of Technology, **Japan**

Indicators of Waste Management in India, *Sumit Sharma*, Associate Fellow, The Energy and & Resources Institute (TERI), *Dr. Suneel Pandey*, Fellow, The Energy and & Resources Institute (TERI), *Dr. N.B. Mazumdar*, Consultant, The Energy and & Resources Institute (TERI), **India**

Primary and Mechanical Compression in MSW Landfills, *Dr. Sumedha Chakma*, Lecturer, Motilal Nehru National Institute of Technology, **India**

7:00 p.m. – 8:00 p.m.  
**Closing Reception**

**WEDNESDAY MARCH 18**

8:00 a.m. – 10:00 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 TRIP 1**

*Landfill and Waste-To-Energy*

Wheelabrator Falls, a state-of-the-art waste-to-energy facility in Falls Township, Pennsylvania, provides dependable, environmentally safe disposal of municipal solid waste for eastern Pennsylvania while generating clean electricity for sale to the local utility. The facility processes up to 1500 tons of non-hazardous municipal solid waste into electricity every day.

and

Waste Management Tullytown landfill, one of the largest private landfills in the United States.

**FIELD TRIP 2**

*Recycling and Transfer*

Blue Mountain Recycling, the sole processor of material collected in Philadelphia's residential curbside recycling program.

and

Waste Management Grays Ferry Transfer Station, a modern 1900 ton per day permitted transfer facility