Scientific Program
### Keynote Forum

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<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Speaker</th>
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<tbody>
<tr>
<td>10:00-10:30</td>
<td>Low temperature and high efficiency biomass fuel cell and bio-hydrogen production</td>
<td>Yulin Deng, Georgia Institute of Technology, Georgia, USA</td>
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<tr>
<td>10:30-11:00</td>
<td>Towards integrated biorefinery based on dried distillers grains co-product strategy to enable production of biofuels and biochemicals</td>
<td>Jagannadh Satyavolu, University of Louisville, USA</td>
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### Sessions: Renewable Energy | Bioenergy | Energy and Environment

#### Session Chair: Yulin Deng, Georgia Institute of Technology, Georgia, USA

#### Session Co-chair: Jagannadh Satyavolu, University of Louisville, USA

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<tr>
<td>11:20-11:40</td>
<td>The concept of lava flow controlled use as a source of energy and materials</td>
<td>Anuar Kulmagambetov, Laitingen Financial Inc., Russian Federation</td>
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<tr>
<td>11:40-12:00</td>
<td>Aerodynamic design and analysis of a small scale wind turbine rotor blade</td>
<td>Tesfaye Meseret Abebe, Otto-Von-Guericke University Magdeburg, Germany</td>
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<tr>
<td>12:00-12:20</td>
<td>Development of a floating ocean-current turbine for the Kuroshio current</td>
<td>Katsutoshi Shirasawa, Okinawa Institute of Science and Technology Graduate University, Japan</td>
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<td>12:20-12:40</td>
<td>Impedance characteristics of the all-vanadium redox flow batteries</td>
<td>Hong Sun, Shenyang Jianzhu University, China</td>
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<td>12:40-13:00</td>
<td>Physical model investigation of one way gear ocean wave energy converter as a floating wave breaker and renewable energy sources</td>
<td>Masjono Muchtar, Politeknik ATI Makassar, Ministry of Industry, Indonesia</td>
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### Lunch Break 13:00-14:00 @ Prom

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<tr>
<td>14:00-14:20</td>
<td>Efficient techniques for woody biomass fractionation to enhance enzyme accessibility</td>
<td>Aye Aye Myint, Seoul National University, Republic of Korea</td>
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<tr>
<td>14:20-14:40</td>
<td>Effect of technology development in the industrial high efficiency boiler using TIMES model</td>
<td>Nyun-Bae Park, Korea Institute of Energy Research, Korea</td>
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<td>14:40-15:00</td>
<td>Design and construction of a crushing machine for organic waste management in Mexico</td>
<td>Camacho-Villan Erik Oswald, National Autonomous University of Mexico, Mexico</td>
<td></td>
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<tr>
<td>15:00-15:20</td>
<td>Sustainable energy performance: bioinspiration from thermoregulation of the termite mounds</td>
<td>Silvia Titotto, Universidade Federal do ABC, Brazil</td>
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<tr>
<td>15:20-15:40</td>
<td>Thermal performance of a concrete-metamaterial added with micro-sized carbon particles for thermal insulation purposes</td>
<td>Juan Carlos Arteaga-Arcos, Universidad Autonoma del Estado de Mexico, Mexico</td>
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<tr>
<td>15:40-16:00</td>
<td>High-gravity carbonation process for CO2 fixation and alkaline waste stabilization</td>
<td>Shu Yuan Pan, National Taiwan University, Taiwan (ROC)</td>
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### Networking & Refreshment Break 16:00-16:20 @ Prom

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<tr>
<td>16:20-16:40</td>
<td>Recycling CO2 as a sustainable source of energy for power plants</td>
<td>Mohammad Ali Takassi, Petroleum University of Technology, Iran</td>
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**Keynote Forum**

<table>
<thead>
<tr>
<th>Time</th>
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<tr>
<td>09:00-09:30</td>
<td>Registrations</td>
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</table>
| 09:30-10:30 | Title: The role of liquid flow window in active and passive solar building design  
T.T. Chow, City University of Hong Kong, China |
| 10:30-11:00 | Title: Transition to a global energy abundance and sustainability plan 2050  
Michael Garvin, University of Iowa, USA |

**Session: Biofuels | Green Technology | Sustainable Energy Policies | Waste Management | Recycling solid waste | E-Waste Recycling**

Session Chair: Michael Boot, Eindhoven University of Technology, Netherlands  
Session Co-chair: Asupatri Usha Rani, Sri Venkateswara University, India

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</table>
| 11:20-11:40 | Title: New business models for biofuels  
Michael Boot, Eindhoven University of Technology, Netherlands |
| 11:40-12:00 | Title: Zinc and selenium supplementation combats cadmium induced bioaccumulation and oxidative stress in teleostean fish Oreochromis mossambicus: The possible detoxification mechanisms  
Asupatri Usha Rani, Sri Venkateswara University, India |
| 12:00-12:20 | Title: St 1 Cellunolix™ bioethanol demonstration plant process is based on softwood as a raw material  
Tom Granstroem, St1 Biofuels Oy, Finland |

**Young Research Forum**

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| 12:20-12:40 | Title: Comprehensive evaluation of biochar application in rice production in Ghana  
Ernest Ohene Nkansah, University of Tsukuba, Japan |
| 12:40-13:00 | Title: Graphene: a promising electrode for microbial fuel cells  
Jayesh M. Sonawane, Indian Institute of Technology Bombay, Mumbai, India |

**Lunch Break 13:00-14:00 @ Prom**

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| 14:00-14:20 | Title: Investigation on development of wind and PV power with hydro pumped storage to increase renewable energy penetration: a parallel analysis of Taiwan and Greece  
Robel Habtemariam, Huazhong University of Science and Technology, China |
| 14:20-14:40 | Title: An investigation into the dynamics of dye-sensitized solar cell for future renewable energy  
Christopher Anokam, Utah State University Eastern, USA |
| 14:40-15:00 | Title: Multidimensional analysis of water governance poverty in the South African corporate sector  
Juniors Marie, Rhodes University, South Africa |
| 15:00-15:20 | Title: Determination of the viability of landfill gas to energy in Africa: The case of Ghana  
Solomon Ofori, University of Stuttgart, Germany |
| 15:20-15:40 | Title: Comparative study of the bio sorption potential of Pseudomonas aeruginosa and Micrococcus lutes on Lead and Chromium  
Ikhumetse A A, Federal University of Technology, Nigeria |
| 15:40-16:00 | Title: The importance of smart meter for transition of smart grid in Turkey  
Onur Elma, Yildiz Technical University, Turkey |
16:20-16:40
Title: Plastic recycling in Douala, Cameroon
Maria Atongajua, International Institute of Tropical Agriculture, Camaroon

16:40-17:00
Title: An overview of biogas production from poultry manure
Emine Cagla Cilingir, Hacettepe University, Turkey

17:00-17:20
Title: Household recyclables estimation for improving waste management in Ulaanbaatar city
Gombojav Delgermaa, The University of Kitakyushu, Fukuoka, Japan

17:20-17:40
Title: Experimental investigation of waste PET in natural sand bricks
Anil Antony Sequeira, Manipal University, Dubai, UAE

17:40-18:00
Title: Novel trends in recycling and WEEE management
Joanna Kulczycka, Polish Academy of Sciences, Poland

Panel Discussion

Day 3 November 30, 2016
Chattahoochee Hall

Keynote Forum

09:30-10:00
Title: NuEnergy’s power house generator & clean water system: a game changing disruptive technology which will revolutionize the sustainable energy industry
Hector M. Guevara, NuEnergy Technologies Corp., USA

Sessions: Energy conservation | Microbial communities and Metagenomics | Water Microbiology | Green Economy | Clinical Microbiology | Soil Microbiology | Nano Environmental Technology | Microbial Biodegradation
Session Chair: Michael Boot, Eindhoven University of Technology, Netherlands
Session Co-chair: Asupatri Usha Rani, Sri Venkateswara University, India

Session Introduction

10:00-10:20
Title: Scrap tires: Diversified technology portfolio for the application of recycled rubber materials
Ashoke Karmokar, Bridgestone Corporation, Tokyo, Japan

10:20-10:40
Title: Automatic solar fire extinguisher
Asit Kumar Dey, University of Johannesburg, South Africa

10:40-11:00
Title: Climate neutrality: Looking for a missing link?
George Malindretos, Harokopio University, Greece

Networking & Refreshment Break 11:00-11:20 @ Prom

11:20-11:40
Title: Do disinfectants promote bacterial antibiotic resistance?
Kostas Konstantinidis, Georgia Institute of Technology, USA

11:40-12:00
Title: Human disease and the environment
Reetika Dawar, Indraprastha Apollo Hospitals, India

12:00-12:20
Title: Microbiology of pesticide and inoculation of biofilter in the field of agriculture
Asmaa Agoussar, University of Montreal, Canada

12:20-12:40
Title: Pattern of distribution of bacterial host and its phages in soil environment
Swagata Karmakar, University of Delhi, India

Lunch Break 13:00-14:00 @ Prom

Poster Presentations 14:00-15:30

P-01
Title: Predicting residential energy savings using known energy characteristics and historical energy consumption
Badr Altrahuni, University of Dayton, USA

P-02
Title: Cost-optimal combined heat power for multifamily buildings using historical demand
Saeed Alqaed, University of Dayton, USA
P-03  Title: Cost impactful borehole thermal energy storage for multifamily buildings  
Rodwan Elhashmi, University of Dayton, USA

P-04  Title: Isolation and screening of chromium reducing bacteria *Pseudomonas fluorescens* from textile dye industrial effluent contaminated ground water samples: A possible bioremediation approach  
Asupatri Usha Rani, Sri Venkateswara University, India

P-06  Title: Aggregate associated C and their stability under different agricultural land use systems of sub-montaneous districts of Punjab, north-west India  
Rajwinder Kaur, Punjab Agricultural University, India

P-07  Title: Light olefin production by cracking *Nannochloropsis oculata* microalgae using aluminosilicate catalysts  
Gaurav Goyal, University of South Florida, USA

P-08  Title: Synthesis of various iodyl compounds of iodoarenes and tetrazolene using Oxone® as an oxidant  
Ram Dhakal, Middle Tennessee State University, USA

P-09  Title: Xylanase and laccase enzyme activities from new thermophilic strains of *Anoxybacillus* and *Streptomyces* species  
Thamir H Alkahem Albalawi, University of Arkansas, USA

Networking & Refreshment Break 15:30-15:50 @ Prom  
Panel Discussion  
Awards and Closing Ceremony