14TH INTERNATIONAL CONFERENCE ON

RENEWABLE & NON-RENEWABLE ENERGY

APRIL 16-17, 2020 | SINGAPORE CITY, SINGAPORE



Energy 2020

Energy 2020	
April 16-17, 2020 | Singapore City, Singapore	
Day-1 April 16, 2020	
Hall-I	
09:30-10:00	Registration
10:00-10:10	Introduction by Moderator
Keynote Forum	
10:10-10:40	Challenges of Renewable Energy Utilization for Power Generation: Renewable-Energy-Based Microgrids and Microgrid-Based Smart Grid Systems
	Hashem Nehrir, Montana State University, USA
Networking & Refreshment Break, 10:40-11:00	
11:00-11:30	Fault Protection and Dynamic Control Strategy for Microgrids with High Renewable Energy
	Dehua Zheng, Goldwind Science and Technology Co., Ltd., China
11:30-12:00	Solar Photocatalysis for Hydrogen Power and Fuel Cell
	Michael K H Leung, City University of Hong Kong, Hong Kong
Oral Session I	
12:00-12:25	Phosphonated SBA-15/Phosphonated PSEBS composite membranes for high temperature proton exchange membrane fuel cells
	Dharmalingam Sangeetha, Anna University, India
12:25-12:50	Advanced Testing Capabilities for Smooth Integration of Renewable Energy Technologies to Power Systems
	Taha Selim Ustun, Fukushima Renewable Energy Institute, Japan
Group Photo 12:50-13:00	
Lunch Break 13:00-14:00	
Session Chair: Venko Nikolaev Beschkov, Bulgarian Academy of Sciences, Bulgaria	
14:00-14:25	Quantitative Risk Assessment of Natural Gas Distribution Pipeline Networks in Urban Areas
	Fulgence V Makonelah , University of Dar es Salaam, Tanzania
14:25-14:50	Performance of chemisorption refrigeration system
	Michael John, University of Dar es Salaam, Tanzania
14:50-15:15	Performance Improvement of Small Wind Turbine under Low Speed Conditions
	Joel Mbwiga, University of Dar es Salaam, Tanzania
15:15-15:40	Right of recourse under nuclear civil liability law of India
	Ramandeep Singh Sidhu, Bathinda Colleage of Law, India
Networking & Refreshment Break, 15:40-16:00	
16:00-16:25	Flow Development Length and Inlet Effect in Vertical Two-phase Flow
	Adela Syikilili, University of Dar es Salaam, Tanzania
16:25-16:50	The study of the influence of load's chemical composition in the coking process on the efficiency and the quality of coke
	Hadj Mimoun, Universite de Boumerdes, Algeria
Session Adjournment	

Previous Speakers 2019



Adango Miadonye
Chemical Engineering and Industrial Chemistry in the School of Science & Technology, Canada



Abhishek Asthana
Sheffield Hallam University
UK



Ailin Jia
Petrochina Research Institute of Petroleum Exploration and Development, China



Guo Zhi
PetroChina Research Institute of Petroleum Exploration & Development, China



Kunio Yoshikawa
Tokyo Institute of Technology
Japan



Daniel Lehser-Pfeffermann
University of applied Sciences
Saarbrucken, Germany



Zhangisina Gulnur Davletzhanovna
International Academy of Informatization, Kazakhstan



Govinda Timilsina
Development Research Group,
The World Bank, USA



Abdullatif hakami
University of South Florida
USA



Aleksandra Szelag
AGH University of Science and Technology, Poland



Joao Santos
University of Birmingham
UK



Krzysztof Sornek
AGH University of Science and Technology, Poland



Maciej Zoladek
AGH University of Science and Technology, Poland



Sylwia Nabozna
AGH University of Science and Technology, Poland



AN Liang
The Hong Kong Polytechnical University, Hong Kong



Mahmoud Bady
The Islamic University of Madinah, KSA, Saudi Arabia

Conference Agenda 2019

Conference Hall: Royal Palms I

09:30-10:10 Registrations

10:10-10:20 Introduction by Moderator

10:20-10:55

Keynote Forum

Title: Technologies advancement and prospect of natural gas development in China

Ailin Jia, Petrochina Research Institute of Petroleum Exploration and Development, China

Networking & Refreshment Break 10:55-11:15 @ Foyer

11:15-11:45

Keynote Forum

Title: Reserves classification and well pattern infilling adjustment in tight sandstone gas field

Guo Zhi, PetroChina Research Institute of Petroleum Exploration & Development, China

11:45-12:20

Title: Principles of establishing waste to energy plants in developing countries

Abhishek Asthana, Sheffield Hallam University, UK

12:20-12:55

Title: Renewable energy based cogeneration on the example of micro scale installation with biomass-fired boiler and modified Rankine cycle

Krzysztof Sornek, AGH University of Science and Technology, Poland

Group Photo 12:55-13:00

Lunch Break 13:00-14:00 @ Restaurant

Oral Session I:
Trends in Renewable Energy | Green Energy and Economy | Advanced Materials for Energy Storage |Generation and Transmission |Hybrid Renewable Energy Approaches | Biofuels and Bio-energy

Session Chair: **Ailin Jia,** Petrochina Research Institute of Petroleum Exploration and Development, China
Session Co-chair: **Adango Miadonye,** Cape Breton University, Canada

14:00-14:25 **Title: Investigation and evaluation of aerodynamic efficiency improvement measures for vertical axis small wind turbines**
Daniel Lehser-Pfeffermann, University of applied Sciences Saarbrucken, Germany

14:25-14:50 **Title: Experimental and numerical analysis od wind turbines operation- Polish case**
Maciej Zoladek, AGH University of Science and Technology, Poland

14:50-15:15 **Title: Selection of batteries and optimatization of energy consumption during AGH solar plane fight**
Aleksandra Szelag and **Sylwia Nabozna**, AGH University of Science and Technology, Poland

15:15-15:40 **Title: Experimental analysis and dynamic simulations of the operation of the photovoltaic cells installed in unmanned aircraft "AGH solar plane**
Krzysztof Sornek and **Dawid Karpinski**, AGH University of Science and Technology, Poland

15:40-16:05 **Title: Analysis of general Rotor-Flux oriented vector control systems**
Abdullatif Hakami, University of South Florida, USA

16:25-16:50 **Title: Flame propagation of pulverised biofuels of varying size distribution fractions**
Muhammad Azam Saeed, University of Engineering and Technology, Pakistan

16:50-17:15 **Title: Disruptive Innovation and Opportunities in the Use of Renewable Energy for Sustainable Development in Nigeria**
Benjamin Anabaraonye, Benjy Poetry and Music Global Concepts, Nigeria

Networking & Refreshments 16:05-16:25 @ Foyer

Session Adjournment

May 21, 2019 **Conference Agenda** **Day 2**

Conference Hall: Royal Palms I

10:00-10:10 **Introduction by Moderator**

10:10-10:45 **Keynote Forum**
Title: Analysis and Forecasts of world renewable energy markets
Abhishek Asthana, Sheffield Hallam University, UK

Networking & Refreshment Break 10:45-11:05 @ Foyer

11:05-11:40 **Keynote Forum**
Title: Flow characteristics of heavy crude oil diluted with alcohols
Adango Miadonye, Cape Breton University, Canada

11:40-12:15 **Title: Analysis of NISMOD a modeling tool for governance of sustainable infrastructure assets for developing and emerging economies**
Renee Gotopo, The Branch Sustains, LLC, USA

Oral Session II:
Sustainable Nuclear Energy | Solar and Wind Energy | Hydro Power Generation | Geothermal Energy | Marine -Tidal and Wave Energy | Smart Grid Systems | Global Impacts of Using Nonrenewable Resources | Waste to Energy | Fossil and Radioactive Fuels

Session Chair: **Abhishek Asthana**, Sheffield Hallam University, UK
Session Co-chair: **Guo Zhi**, Petrochina Research Institute of Petroleum Exploration and Development, China

12:15-12:40
Title : Thermo-Catalytic Reforming (TCR) of Lignocellulosic Biomass using steel slags (SS) as catalyst
Joao Santos, University of Birmingham, UK

12:40-13:05
Title: Dangers of climate change on food security and economy of developing countries case study: Uganda
Kwesiga Evadio, Makerere University, Uganda

Lunch Break 13:05-14:05 @ Restaurant

14:05-14:30
Title: The use of international laws as a means of acting as universal environmental regulator in developing case study: Nigeria
Kamuganga Gilbert, Makerere University, Uganda

14:30-14:55
Title: Application of laser-induced breakdown spectroscopy (LIBS) on oilfield scales- A comparative study
Ghada Bassioni, Ain Shams University, Egypt

14:55-15:20
Title: How small solar powered autonomous container ships could affect maritime transport and environment
Izabela Swatek and **Mieszko Mierunski**, AGH University of Science and Technology, Poland

15:20-15:45
Title: AGH Solar Boat as sustainable solution to combat climate change
Karolina Stuchly and **Aleksandra Skolarz**, AGH University of Science and Technology, Poland

15:45-16:05
Title: The effect of encapsulation layer on thermo-electrical parameters of photovoltaic panels
Maciej Borowicz and **Witold Gebarowski**, AGH University of Science and Technology, Poland

Networking & Refreshment Break 16:05-16:25 @ Foyer

Conference Adjournment

Conference Agenda 2018

08:30-09:00 Registration

Conference Hall: Palm B

09:00-09:25 Opening Ceremony

09:25-09:40 Introduction

09:40-10:20 Keynote Presentation

Title: Recent developments in wind turbine sensing for structural health monitoring

Christopher Niezrecki, University of Massachusetts Lowell, USA

10:20-11:00

Title: The role of enhanced oil & gas recovery in the United States and International development & the effects on pricing International development, exports, and imports

Davis L Ford, The University of Texas at Austin, USA

Group Photo

Networking & Refreshment Break 11:00-11:15 @ Palm Hallway

11:15-11:55 Keynote Presentation

Title: Strong-acid compatible, earth-abundant-element, molecular water oxidation catalysts for solar fuel production

Craig L Hill, Emory University, USA

Oral Session I: Wind Energy | Sustainable Energy | Conversion Systems for Renewable Energies | Solar Energy Systems | Green Energy and Economy | Bioenergy, Biofuels and Biomass

Session Chair: **Craig L Hill**, Emory University, USA
Session Co-chair: **Enhua Wang**, Beijing Institute of Technology, China

11:55-12:20

Title: Transition toward renewables in developed countries

Hasan Kadri, Immortal Energy, Lebanon

12:20-12:45

Title: Aerodynamic analysis and experimental study on walker sail for sail-assisted ships

Yihuai Hu, Shanghai Maritime University, China

12:45-13:10

Title: Biofuels – Sunfuels – Synthetic Fuels: Who makes the run?

Martin Mittelbach, University of Graz, Austria

Lunch Break 13:10-14:10 @ Restaurant

14:10-14:35

Title: P2G as a tool for sector coupling and energy transition in Germany

Irina Stamo, IKEM (Institute for Climate Protection, Energy and Mobility), Germany

14:35-15.00	**Title: Investigation on the thermal and power performance of vacuum BIPV glazing and its optimization potential in high-rise buildings** **Xi Chen**, The Hong Kong Polytechnic University, Hong Kong
15.00-15.25	**Title: A case study on nest's "Smart Home Energy" business model: Based on strategic choices for connected product** **Minzheong Song**, Hansei University, South Korea
15.25-15.50	**Title: Design of a modified egyptian solar house using PV energy** **Faten H Fahmy**, Electronics Research Institute, Egypt

Networking & Refreshment Break 15:50-16:10 @ Palm Hallway

16:10-16:35	**Title: The global carbon cycle: A case study investigation of the use of charcoal & variables delaying fermentation in wet beans slurry** **Adewole Mayowa**, Sapienza University of Rome, Italy
16.35-17.00	**Title: Modelling and incorporating environmental externalities in future electricity mix of Pakistan** **Gordhan Das Walasai**, Quaid -e- Awam University of Engineering, Pakistan

Sessions Adjournment

July 17, 2018 **Day 2**

Conference Hall: Palm B

09:55-10:00	**Session Introduction**
09:40-10:20	**Keynote Presentation** **Title: Fracture and structural integrity issues in wind turbines: Recalling miguel de cervantes and antonio vivaldi** **Jesus Toribio**, University of Salamanca, Spain
10:20-11:00	**Title: Potential yield of dedicated energy crops: Results and outcomes of the Sun Grant regional feedstock partnership** **Vance N Owens**, South Dakota State University, USA

Networking & Refreshment Break 11:00-11:15 @ Palm Hallway

11:15-11:55	**Keynote Presentation** **Title: Aerodynamic optimization of wind turbine blades and wind energy** **Ramesh K Agarwal**, Washington University in St. Louis, USA

Oral Session II: Advanced Materials for Energy Storage, Generation and Transmission | Recycling of Waste Energy | Bioenergy, Biofuels and Biomass | Green Energy and Economy | Bioenergy, Biofuels and Biomass

Session Chair: **Jesus Toribio**, University of Salamanca, Spain
Session Co-chair: **Thirumany Sritharan**, Nanyang Technological University, Singapore

11:55-12:20	**Title: Nanoscale engineering of hematite and bismuth vanadate photoanodes for water splitting in PEC** **Thirumany Sritharan**, Nanyang Technological University, Singapore
12:20-12:45	**Title: Study on combustion of sewage sludge solid fuel alternative to coal for Sustainable energy future** **Hyung Taek Kim**, Ajou Uninversity, South Korea
12:45-13:10	**Title:An innovative closed cycle osmotic - heat Machine (OHM) for green power generation Hameed B Mahood** **Anees A Khadom**, College of Applied Science- Sohar, Oman

Lunch Break 13:10-14:10 @ Restaurant

Young Researcher Forum

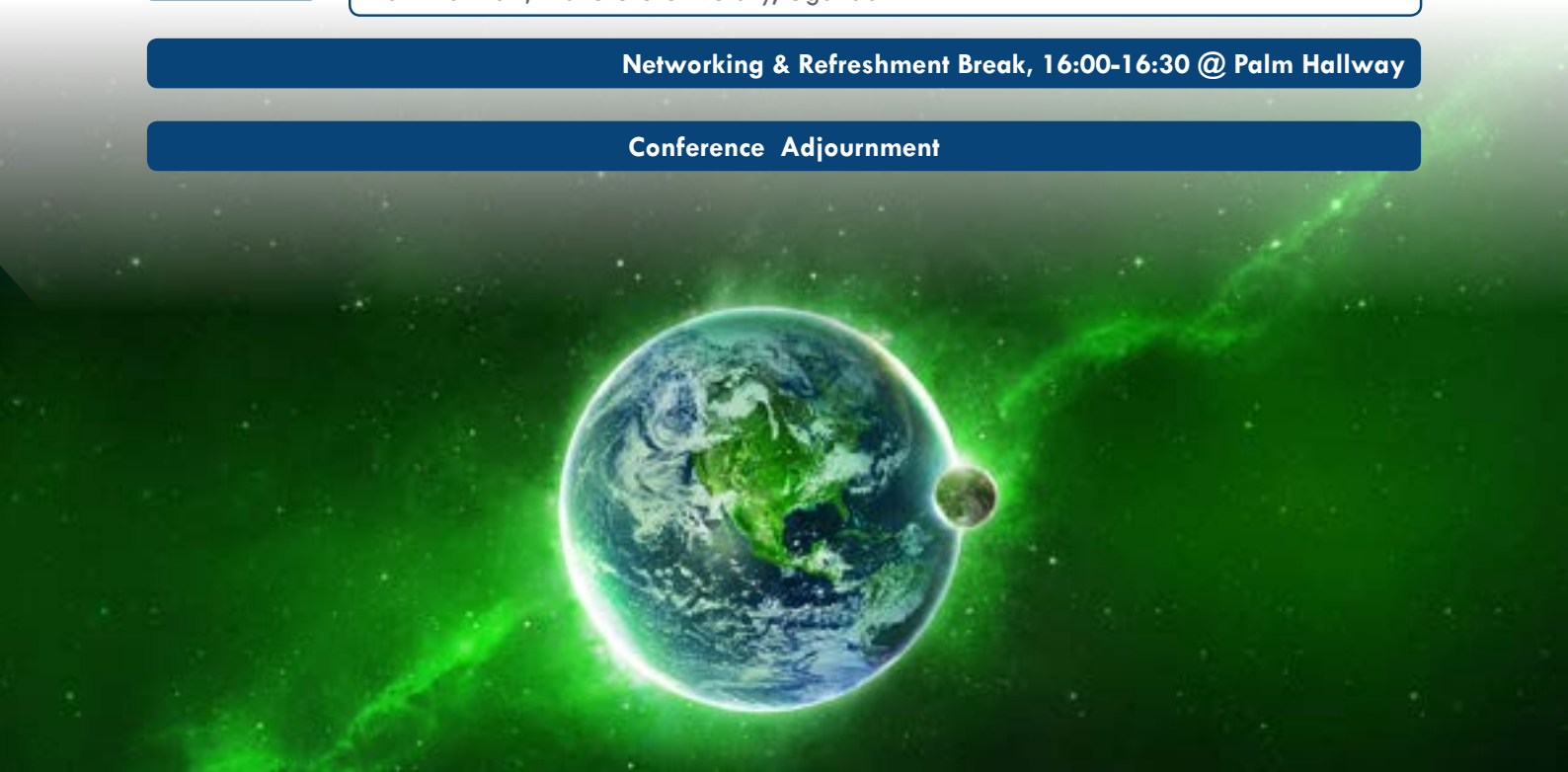
14:10-14:35	**Title: The role of residues from the Palm oil production process in a sustainable energy system** **Bobbo Nfor Tansi**, Brandenburg University of Technology, Germany
14:35-15.00	**Title: Oil exploration activities and their prospectivity on biodiversity and ecosystem in Albertine Graben-Western Uganda** **Aijuka Nicholas**, Makerere University Kampala, Uganda
15.00-15.25	**Title: The oil boom in Uganda as a major factor for economy takeoff** **Levis Ngabirano**, Makerere University Kampala, Uganda

Poster Presentations (15.25-16.00)

E-01	**Title: A supercritical power cycle using carbon dioxide for low temperature geothermal sources** **Enhua Wang**, Beijing Institute of Technology, China
E-02	**Title: Morphological behavior and power generation capacity in prickly pear** **Wilgince Apollon**, Autonomous University of Santo Domingo, Mexico
E-03	**Title: The effects of increase in global fuel prices on the global economy and GDP** **Kahima Ivan**, Makerere University, Uganda

Networking & Refreshment Break, 16:00-16:30 @ Palm Hallway

Conference Adjournment



Glimpses of Energy events







