

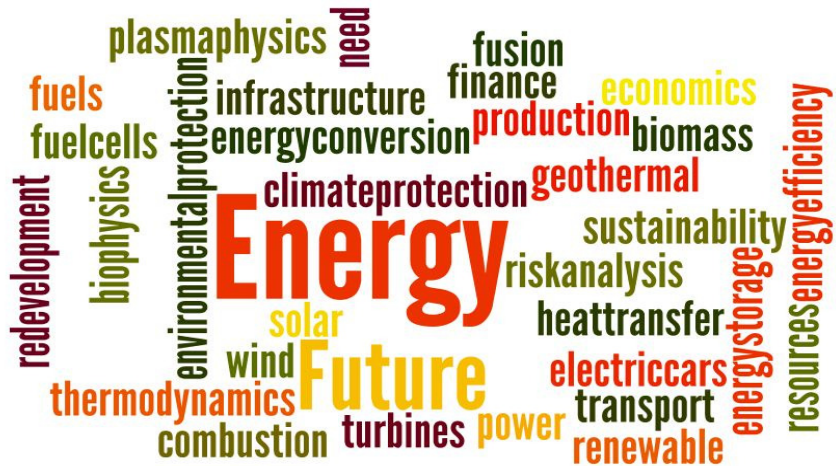
TENTATIVE PROGRAM



Last Updated on: October 12, 2021

VI International Conference on **Fossil and Renewable Energy**

February 15-17, 2022 | Houston, TX



Conference Venue

DoubleTree by Hilton
Houston Intercontinental Airport
Houston, TX

Plenary Speakers

Jun Liu, Pacific Northwest National Laboratory, Richland, WA



Research Foundation Innovation Chair in Clean Energy, Campbell Chair Professor of Materials Science & Engineering, Professor of Chemical Engineering, and a Battelle Fellow at the Pacific Northwest National Laboratory (PNNL)

Panos M. Pardalos, University of Florida, Gainesville, FL, USA



Paul and Heidi Brown Preeminent Professor in Industrial & Systems Engineering at the University of Florida

Marc A. Rosen, Ontario Institute of Technology, Canada



Professor at University of Ontario Institute of Technology in Oshawa, Canada

Andrew R. Barron, Energy Safety Research Institute (ESRI), UK



British chemist, academic, and entrepreneur. He is the Sêr Cymru Chair of Low Carbon Energy and Environment at Swansea University, Director of the Energy safety Research Institute, and has appointments at Rice University and in the Arizona Institutes for Resilience at University of Arizona.

Andrew Blakers, The Australian National University, Australia



Professor Andrew Blakers FRSN FTSE is Director of the Australian National University Centre for Sustainable Energy Systems,

Keynote Speakers

Daniel W. H. Su, NIOSH, Pittsburgh, PA, USA



Title to be Announced

Oomman K. Varghese, University of Houston, Houston, TX



Title to be Announced

Chua Kian Jon Ernest, National University of Singapore, Singapore



Towards Next-Generation of Energy-efficient Air Conditioning Systems

Anne M. Gaffney, Idaho National Laboratory, Idaho Falls, ID



Title to be Announced

Karthik Shankar, University of Alberta, Canada



Plasmonic photocatalysis for the generation of solar fuels

Hamid Zareipour, The University of Calgary, Canada



Grid Transformation: Lessons from History to Imagine a Future Grid

Featured Presentations

Navigating the Media's Natural Gas Narrative

Mark Truax, Pac/West Communications, Denver, CO, USA

Development of a high-efficiency, cost-effective ground source heat pump system for residential houses

Yao Yu, North Dakota State University, West Fargo, ND

Assessment of Energy System Reliability Failures During the Extreme Cold Weather Event in the ERCOT Region

John Dulude, J.S. Held, Charleston, SC

Substituting a sheet of thin film piezoelectric material for an electric generator in Power Production systems

Edwin Newman, Palmdale, CA

To be Announced

Radenka Maric, University of Connecticut, Mansfield, CT

Carbon Capture, Utilization and Sequestration: How We Can Work Together Towards A Better Climate

Oyango A. Snell, Western States Petroleum Association, Sacramento, CA

High surface carbon monoliths for natural gas storage

Yanfeng Yue, Delaware State University, Dover, DE

Use of the CHAMPS model for simulating moisture and heat flux on an extensive green roof Yige Yang, Syracuse University, Syracuse, NY
Hybrid Renewable Modular Closed-Loop Scalable PSH System Thomas Eldredge, Liberty University, Lynchburg, VA
Self-powering behaviors of structural materials Xiang Xi, University at Buffalo, Buffalo, NY
Classification of tall tower meteorological variables in Columbia, Missouri using Self-Organizing Maps and forecasting wind speeds using Long Short-Term Memory Network Sarah Balkissoon, University of Missouri, Columbia, MO
Why Do We Still Use Fossil-Fuel Energy? A Trade-off Analysis Faraz Farhidi, Georgia State University, Atlanta, GA
Reforming FERC's RTO/ISO stakeholder governance principles Christina E. Simeone, National Renewable Energy Laboratory, Philadelphia, PA
Metallic photosensitizing nanomaterials for efficient light harvesting and photovoltaic applications Hai-Lung Dai, Temple University, Philadelphia, PA
High Energy-Density Thermionic Generators for Mobile Energy Solutions Kazuaki Yazawa, Atlas Energy Systems, Carmel, IN
Novel Electrochemical Technique to Measure and Monitor Microbial Corrosion in Real-Time for the Oil and Anwar Sadek, Corrolytics, Akron, OH
Molecular adsorption/transport in nano- & meso-porous solids: a combined experimental and numerical Yann Magnin, Massachusetts Institute of Technology, Cambridge, MA
Ammonia – as Green Energy Carrier and Beyond Jivan Thakare, University of North Dakota, Grand Forks, ND
Title to be Announce John Schramski, University of Georgia, Athens, GA
Title to be Announce Rohit Chintala, National Renewable Energy Laboratory, Golden, CO
Title to be Announce Samy Alkhatat, Wayne State University, Detroit, MI
The intrinsic value of biofuels M. Magdalena Ramirez-Corredores, Idaho National Laboratory, Idaho Falls, ID
Coupled diffusion-deformation-damage model for polymers exposed to high pressure hydrogen Shank S. Kulkarni, Pacific Northwest National Laboratory, Richland, WA
Nonconventional physical principles of energy harvesting Valery Pilipchuk, Wayne State University, Detroit, MI
Symmetric Organic Redox Flow Battery model based on helical carbenium ions electrolytes Jules Moutet, University of Arizona, Tucson, AZ
Electrostatic Energy Scavenging With Exponential Charge Accumulation David T. Ma, University of Hawaii at Manoa, Honolulu, HI
Shrinking While Growing: Making the Impossible Possible Gene Gebolys, World Energy LLC, Boston, MA
Polymer-inorganic composite proton-exchange membranes for intermediate temperature electrochemical processes Oksana Zholobko, North Dakota State University, Fargo, ND
High-temperature design of 700°C components in a large capacity thermal energy storage system Hyeong-Yeon Lee, Korea Atomic Energy Research Institute, Korea
Fluid-Rock Interaction in Unconventional Reservoirs, Bowland shale (UK) Veerle Vandeginste, KU Leuven, Belgium
Solar Energy as the Best Solution for Isolated Communities in the North of Chile Yasna Schifferli, Gestener, Chile

Well-to-Wheel Analysis of Natural Gas Fuel for Hybrid Truck Applications oxide cell sintering and operating temperatures Emil OBEID, American University of the Middle East, Kuwait
Sustainable Production of Metal Solar Fuels through the Carbothermal Reduction of Magnesia and Alumina Youssef Berro, PROMES CNRS, France
Poly-Si passivating contacts – The next generation of industrial high-efficiency silicon solar cells Josua Stuckelberger, Australian National University, Australia
ZIF-8-derived ZnO/C Decorated by Functionalized multiwalled-Carbon Nanotube for Enhanced Electrochemical Energy Storage Kabir O. Otun, University of South Africa, South Africa
Potential Reductions in Global Gas Flaring for Determining the Optimal Sizing of Gas-To-Wire (GTW) Process: An Inverse DEA Approach Kelvin K. Orisaremi, The Hong Kong Polytechnic University, Hong Kong
Is Risk the Fuel of the Business Cycle? Christoph Schult, Halle Institute for Economic Research, Germany
CONTINUOUS WOBBE INDEX CONTROL IN NATURAL GAS DELIVERED BY PIPELINE VIA NITROGEN BLENDING, DEVELOPED FOR CHILEAN REGULATORY FULFILLMENT IN Luis Villegas Vivar, ENAP, Chile
Challenges and prospects for developing emerging antimony chalcogenide thin film solar cell technology exploitability in the Mediterranean Sea Nicolae Spalatu, Tallinn University of Technology, Estonia
The Australian energy consumer transition Glen Thomas Currie, University of Melbourne, Australia
Numerical Prediction of Mixture Formation Process up to Auto-Ignition of an Ethanol Spray in a Rapid Compression and Expansion Machine Hikaru Tsunoda, Sojo University, Japan
The early Paleozoic marine shale gas systems in South China: Geological characterization and resource evaluation Jingqiang Tan, Central South University, China
Asymmetric role of Information and Communication Technology in the interrelation of Financial Development and Energy consumption in BRI Countries using Dynamic panel Hayat Khan, Shenzhen University, China
Renewable Energy Technologies in the Global South: Sub-Saharan Africa Trends and Perspectives Williams Ebhota, Durban University of Technology, South Africa
Evaluating Renewable Energy Pathways for Stimulating Green Economic Recovery after COVID-19 Syed Ahsan Ali Shah, Nanjing University of Science and Technology, China
A new turbulent wind speed prediction method for turbine blade design Jose Carlos de C. Pereira, Federal University of Santa Catarina, Brazil
Operational efficiency of batch, single- and two-stage semi-continuous anaerobic co-digestion of abattoir solid and winery solid wastes Vincent Ifeanyi Okudoh, Cape Peninsula University of Technology, South Africa
The mercury emissions from combustion of coal and lignite in Large Combustion Plants in the Czech Republic Lukas Pilar, Czech Technical university in Prague, Czech Republic
Field Trials of Calcium Chloride Weighted Fracturing Fluid in a HTHP Reservoir in Tarim Basin, China Huifeng Liu, CNPC Engineering Technology R&D Company Limited, China

<p>Elucidating the recombination losses in perovskite-based solar cells Hansong Xue, National University of Singapore, Singapore</p>
<p>Solid Fuel Briquette Production from Waste Corn Stover Oluwaseun Oyekola, Cape Peninsula University of Technology, South Africa</p>
<p>Translating the device design of green Kesterite solar cells for photoelectrochemical solar fuels Xiaojing Hao, The University of New South Wales, Australia</p>
<p>Numerical Simulation of a Natural Gas Burner with high Hydrogen Contents for Heat Treatment Process of Steel Frank U. Ruckert, University of Applied Sciences Saarbrücken, Germany</p>
<p>CO₂ and H₂ effects on lean limits, combustion and instability of Ethanol flame Muhammad Zuhaib Akram, Tsinghua University, China</p>
<p>Petrographic and diagenetic study of siliciclastic Jurassic sediments from the Northeastern margin of Africa: Implication for reservoir quality Ahmed A. Kassem, Gulf of Suez Petroleum Company, Egypt</p>
<p>Evaluating Renewable Energy Pathways for Stimulating Green Economic Recovery after COVID-19 Syed Ahsan Ali Shah, Nanjing University of Science and Technology, China</p>
<p>Forecasting the potential and economic feasibility of power generation using biogas from food waste in Ghana: Evidence from Accra and Kumasi Dan Cudjoe, Nanjing University of Information Science & Technology, China</p>
<p>Synergistic handling of flow assurance problems in offshore crude oil transportation pipelines Barasha Deka, IIT (ISM), India</p>
<p>Mechanical integrity and attenuation of cement with PVC waste as stabilizing or shielding material required Heba A. Esawii, The American University in Cairo (AUC), Egypt</p>
<p>The effect of type waves on vibroseismic implementation of changes properties of rock, oil viscosity, oil compound composition, and enhanced oil recovery Stevy Canny Louhenapessy, Bandung Institute Of Technology, Indonesia</p>
<p>Optimized Transesterification of Palm Kernel and Waste Sunflower Oils in Ultrasonic Reactor: Production and Characterization of Biodiesel Christopher Enweremadu, University of South Africa, South Africa</p>
<p>Saturation Calculation in a Caspian Region Gas Reservoir Using Leveret-J Function Abdullah Gurkan Iscan, Cyprus International University, Cyprus</p>
<p>Analyzing the Renewable Energy Barriers and Strategies for Sustainable Development in Pakistan: The Hybrid Fuzzy MCDM Approach Yasir Ahmed Solangi, Nanjing University of Science and Technology, China</p>
<p>Thermal efficiency investigation of a ferrofluid-based cylindrical solar collector with a helical pipe receiver under the effect of magnetic field Ehsan Shojaeizadeh, Razi University, Iran</p>
<p>Electrocatalysis of Noble-Metal-Based Intermetallic Compounds for CO₂ Reduction in An Aqueous Solution Tomoaki Takayama, Tokyo Institute of Technology, Japan</p>
<p>Plasmonics for hydrogen energy applications Katsuaki Tanabe, Kyoto University, Japan</p>
<p>Development of helium leak detector of canister for concrete cask Hirofumi Takeda, Central Research Institute of Electric Power Industry, Japan</p>
<p>Development of Metal Oxide Catalysts for Carbon Dioxide Valorization Efsthathia Tsarouchi, Aerosol and Particle Technology Laboratory/CERTH, Greece</p>

Title to be Announce Dimitrios V. Lyridis, National Technical University of Athens, Greece
Day-ahead optimal bidding of microgrids in energy and ancillary services markets considering uncertainties Abolfazl Nateghi, Kharazmi University, Iran
Innovative Building Integrated Solar Technology Solutions to Enhance Building Efficiency Danial Hadizadeh, Mitrex Solar Technology, Canada
Title to be Announce Carla Asquer, Sardegna Ricerche, Italy
An analysis of electricity congestion price patterns in North America Frederic Godin, Concordia University, Canada
Title to be Announce Saumitra Saxena, King Abdullah University of Science and Technology (KAUST), Saudi Arabia
Comparative modeling and optimization of global solar radiation using machine learning and empirical Samuel Chukwujindu Nwokolo and Otse Christiana Queennet, University of Calabar, Nigeria
Decarbonization in New Zealand – Where and How Le Wen, University of Auckland, New Zealand
Efficiency Measurement of Energy Policies under Multi-aspects Consideration Sudlop Ratanakuakangwan, Osaka University, Japan
Techno-economic performance indices for Low Concentrated hybrid solar collector Rohit Tripathi, J. C. Bose University of Science and Technology, India
Municipal solid waste management and waste-to-energy in the context of a circular economy in Paris Jean Pierre Doussoulin, Universidad Austral de Chile, Chile
Simultaneous Bio-electricity Generation from Rice and Corn Plant Microbial Fuel Cell and Crop Harvesting M. Azizul Moqsud, Yamaguchi University, Japan
Sintered electrodes nickel-cadmium batteries as hydrogen storage units of high-capacity Nikolay Efimovich Galushkin, Don State Technical University, Russia
Structurally Explicit Composition Model of Petroleum Vacuum Residue Mert Haktanir, Turkish Petroleum Refineries Co. (TÜPRAŞ) R&D Center, Turkey
Energetic and exergetic assessment of a PV-T integrated ethanol PEM electrolyzer Basar Caglar, Izmir Institute of Technology, Turkey
Energy and waste valorization from construction and building materials Florian Huchet, Université Gustave Eiffel, France
Catalyst Design and System Engineering in Electrochemical CO ₂ Reduction Reaction Ying WANG, Chinese University of Hong Kong, Hong Kong
Practical challenges with burning ammonia and ammonia blends as a means of decarbonizing fossil fuels William L Roberts, King Abdullah University of Science and Technology, Saudi Arabia
Investigations of Torch Flame behavior in a Pre-chamber Type Gas Engine Takahide Aoyagi, Kyushu University, Japan
Thermal Calculations of Four-Row Plate-Fin and Tube Heat Exchanger Taking into Account Different Air-Side Correlations on Individual Rows of Tubes for Low Reynold Numbers Mateusz Marcinkowski, Cracow University of Technology, Poland
Enhanced Interfacial Stability Between Li ₇ P ₂ S ₈ X Solid Electrolyte and Electrode in All-Solid-State Lithium Batteries Kwang-Sun Ryu, University of Ulsan, Korea
High Efficient gasification in a Low-tar biomass (LTB) gasifier by Coupling with Inclined Nozzle and Combustor for Tar Reduction Md Mashiur Rahman, Bangladesh Agricultural Research Institute, Bangladesh

Evaluation of ultrasonic cavitation on the transesterification reaction to produce biodiesel in a semi pilot continuous reactor

Francisco Rodriguez Valadez, CIDETEQ, Mexico

On-board and Non-destructive diagnosis and control methods for proton exchange membrane fuel cell stack

Yutaro Akimoto, University of Tsukuba, Japan

Speaker and Poster Slots are Available