

Preliminary Conference Program

International Conference on Energy, Water & Environmental Sciences 2018
American University of Ras Al Khaimah, Building G, Ras Al Khaimah, UAE

November 13 – 15, 2018

Day 1- November 13, 2018:

9:30 - 10:00	Opening ceremony, 13 November 2018 <ul style="list-style-type: none"> • National Anthem • Versus from the Holy Quran • Video-AURAK • Welcome Speech - Prof. Hasan Hamdan Al Alkim, <i>President of American University of Ras Al Khaimah</i> • Co-Organizer speech - Dr. Sabine Dorpmüller, <i>AGYA Managing Director</i> • Overview of ICEWES 2018 - Prof. Ahmad Sakhrieh, <i>Organizing Committee Chair, American University of Ras Al Khaimah, UAE</i> 		
10:00 - 10:30	Coffee Break		
10:45 - 11:30	Prof. Dr. Ing. Uta Pottgiesser Keynote Title: Smart and Sustainable Cities & Heritage: Healthy Corridors for Innovative and inclusive Development		
11:30 - 12:15	Dr. Ismahane Elouafi Keynote Title: Food-Energy-Water Nexus: Resources Efficiencies and Policy Dimensions		
12:20 - 12:40	Performance Indices of a Practical PV Power Plant <i>Daifallah Dalabeih</i>	Changes in Dead Sea Physical Properties Caused by Mixing of Two Seas Waters (Dead Sea and Red Sea) <i>Abdelaziz Khlaifat, Mufeed Batarseh, Khalid Nawayseh, Jamal Amira, Emad Talafeha</i>	Energy Efficient Aquaponics <i>Ammar Alkhalidi</i>
12:40 - 13:00	Support Vector Machine for PV System Efficiency Improvement	Artificial Recharge (AR) of Groundwater	Efficiency Enhancement Using Double Layer Anti-

	<i>Maissa Farhat, Maen Takruri</i>	Aquifers in Saudi Arabia <i>Musaed AlAwad</i>	reflection Coating of Metamaterial and Silicon Nitride) <i>Shereen Mostafa, Mostafa Fedawy, Tarik Abd Al-Kader</i>
13:00 - 14:15	Lunch		
14:20 - 14:40	Autonomous Electronic System for Environmental Conditions Monitoring and Controlling Functions <i>Ahmad Amhani, Hussain Attia, Mousa Mohsen</i>	3-D Transient CFD Modelling of Salinity Gradient Solar Pond Under UAE Climate <i>Khadije El Kadi, Isam Janajreh</i>	Greenhouse Microclimate Flow Simulation: Influence of Inlet Flow Conditions <i>Isam Janajreha, Syed Shabbar Raza, Khadije El Kadi</i>
14:40 - 15:00	Online Monitoring and Evaluation of PV Soiling Using a Smart IoT-based IV Tracer <i>Salsabeel Shapsough, Rached Dhaouadi, Mohannad Takrouri, Imran A. Zualkernan</i>	New Design and Implementation of AURAK Solar Car: Electrical Vision <i>Hussain Attia, Mousa Mohsen</i>	Energy Mix by 2020 and the Impact of the Penetration of Renewable Energy on the Electricity in Terms of Supply and Demand Management for Energy in Jordan <i>Yousef Dababneh, Ahmed Said Al-Salaymeh</i>
15:00 - 15:20	Design and Implementation of Solar Tent Considering Gulf Countries Environmental Conditions <i>Ahmad Amhani, Hussain Attia, Mousa Mohsen</i>	Photocatalytic Degradation of Industrial Wastewater in Jordan using Co-Precipitation Synthesized Fe ₃ O ₄ Nanoparticles <i>Yousef Al-Abdallat, Inshad Jum'h, Ahmad Telfah, Abeer A-l Bsoul</i>	Water Trophic Status Mapping of Tecto-Volcanic Maninjau Lake During Blooming Algae Using Landsat 8 OLI Satellite Imagery <i>Anggia Rivani</i>

15:20 - 15:40	Coffee Break		
15:40 - 16:00	<p>Experimental Investigation of Photovoltaic Cooling Using Phase Change Materials</p> <p><i>Suhil Kiwan, Hisham Ahmad, Ammar Alkhalidi</i></p>	<p>Effect of Controlled Doping on Optical, Morphological and Structural Properties of Metal-Polymer Nanocomposites</p> <p><i>Inshad Jum'h, Ahmad Telfah , Marwan Mousa, Mais Jamil Ahmad, Yousef Al-Abdallat, R. Hergenröder</i></p>	<p>Comparison of Reference Crop Evapotranspiration (ET_o) by Different Radiation and Temperature Based Method with FAO 56 Penman-Monteith Method and Using Lysimetric Evapotranspiration at New Delhi, India</p> <p><i>Ram Karan Singh</i></p>
16:00 - 16:20	<p>Autonomous Dust Monitoring and Cleaning System for Solar Panel Applications in GCC Region</p> <p><i>Ahmad Amhani, Hussain Attia</i></p>	<p>New Fundamental Concept Useful for Classification of Water Quality</p> <p><i>Ahmed Elhag, Jr.</i></p>	<p>The Effect of Functionalized Multi-walled Carbon Nanotubes (f-MWCNTs) on Tomato Plants (<i>Solanum Lycopersicum</i>)</p> <p><i>Nuralhuda Jasim</i></p>
16:20 - 16:40	<p>MicroGrids Information Modeling</p> <p><i>Khouloud Salameh, Richard Chbeir, Haritza Camblong, Mohammed Awad</i></p>	<p>Biofouling Control with Quorum Quenching Bacteria in Membrane Bioreactors for Wastewater Treatment</p> <p><i>Olfa Khelifiab, Evelina Koltsova, Anastasiia Nehrii, Ki-Baek Lee</i></p>	<p>Hybrid PEM Fuel-Cell-Diesel-Solar Power System Design with Fuzzy Battery Management System and Weather Forecasting for Electric Boats</p> <p><i>Walid Obaid, Abdul-Kadir Hamid, Chaouki Ghenai</i></p>

16:40 - 17:00	<p>Long Term Performance Testing of High Solar Reflective Index Materials in UAE Environmental Conditions)</p> <p><i>Uday Kumar, Waqarullah Kazim, Mousa Mohsen</i></p>	<p>Nanoparticles Applications in Water Industry: A Review</p> <p><i>Ammar Alkhalidi, Asem Alemam, Abdallah Alemam, Mohammad Khasawneh</i></p>	<p>Design of a Potable Water Quality Monitoring System Based on Wireless Sensor Networks</p> <p><i>Aaesha AlAli, Shaikha Al Dhaheri, Mohammed Adel Abdel-Hafez</i></p>

Day 2- November 14, 2018:

9:00 - 9:20	<p>Feasibility Analysis of a Small Scale Solar Thermal Power System Based on ORC</p> <p><i>Khaled Hossin</i></p>	<p>Ranking of 96 Urban Plant Species for Their Role in the Net Reduction of Atmospheric Particulates)</p> <p><i>Samira Muhammad, Karen Wuyts, Roeland Samson</i></p>	<p>Novel Method for Removing Phosphate Ions from Polluted Water</p> <p><i>Ragaa Shohaib</i></p>
9:20 - 9:40	<p>The Optimum Configuration of Fully Dispatchable Hybrid PV-CSP Solar Power Plant in Jordan</p> <p><i>A. Abubaker, K. Hassouneh, A. Al-Salaymeh</i></p>	<p>Virtual Show Houses Energy Effectiveness and Environmental Impact)</p> <p><i>Esraa Altwassi, Abeer Abu Raed</i></p>	<p>Thermal Engine Using Nitinol Wire</p> <p><i>Ghaleb Ibrahim, Salem Haggag, Moon Diab, Hadi Abbas, Laith Al Qassem</i></p>
9:40 - 10:00	<p>Parametric Study of A Single Effect Lithium Bromide-Water Absorption Chiller Powered by a Geothermal Heat Source</p> <p><i>Muhammad Tawalbeh, Tareq Salameh, Mamdouh Assad, AbdulHai Alami, Mona Albawab, Amani Al-Othman</i></p>	<p>Novel Design of AURAK Hydrogen Car: Electrical Aspects</p> <p><i>Hussain Attia, Maissa Farhat, Mousa Mohsen</i></p>	<p>Meteorological Drought Characteristics and Agriculture in the Semi-arid Region of Maharashtra, Western India</p> <p><i>Rahul Todmal</i></p>
10:00 - 10:30	Coffee Break		
10:30 - 11:15	<p>Prof. Dr.-Ing. Martin Kaltschmitt</p> <p>Keynote Title: Alternative fuels for sustainable transportation – Technical options and their assessment</p>		

11:15 - 12:00	Prof. Ismael Al-Hinti Keynote Title: Solar photovoltaics: status, potentials, and challenges		
12:00 - 12:20	One Step Toward Net Zero Energy Buildings in Jordan <i>Rizeq Hammad</i>	A Review of Water Shutoff Treatment Methods in Oil Fields <i>Saad Balhasan, Somayah Rahmat Allah, Khaled Hossin, Fatema AlAli</i>	River Bank Filtration for Wastewater Reuse in Irrigation: Adaptation to Climate Change <i>Ziad Al-Ghazawi, Thomas Boving, Moayyad Shawaqfah, Jamal Al-Rashdan, William Blanford, Ismael Saadoun, Qutaiba Ababneh, Jack Schijven</i>
12:20 - 12:40	Energy Saving Opportunities for A Residential Building in Ras Al Khaimah, UAE <i>Omar Akash, Nada Alsafarini</i>	Colour Removal from Palm Oil Mill Effluent Using Activated Carbon Derived from Wastewater Treatment Sludge <i>Sara Faiz Tasfy</i>	Performance Valuation of Five Penman Form of Models by Means of Lysimetric Evapotranspiration Under Water Stress Environments at New Delhi, India <i>Ram Karan Singh</i>
12:40 - 13:00	Simulation of A Residential Space Cooling System by Geothermal Energy in the UAE <i>Muhammad Tawalbeh, Tareq Salameh, Mamdouh Assad, Mona Albawab, AbdulHai Alami, Amani Al-Othman</i>	Forecasting of Monthly Flow for the White Nile River (South Sudan) <i>Tariq Mohamed</i>	Design, Characterization and Optimization of PV System for Maximum Energy Production in the State of Kuwait <i>Fajer Alelaj, Abdullah K Alqallaf</i>
13:00 - 14:30	Lunch		

14:30 - 14:50	<p>Experimental Studies on Energy Saving in the Built Environment of UAE by Integrating Phase Change Materials</p> <p><i>Yasir Rashid, Mohammed Ziauddin, Bobby Mathew, Fadi Al Naimat</i></p>	<p>Design and Development of a Pilot Scale Municipal Solid Waste Gasification and Methanol Production Plant in UAE</p> <p><i>Uday Kumar, Mousa Mohsen</i></p>	<p>Optimal Allocation of Small PV Distributed Generation System in Underground Circuit Using Maximal Power Loss Reduction</p> <p><i>Mohammad Alrumaih, Rumaih</i></p>
14:50 - 15:10	<p>Customs exempt car and friendly to the environment, what are the barriers that prevent its adoption? A case study in Jordan</p> <p><i>Ammar Alkhalidi, Ro'a Almahmood, Hiba Malkawi</i></p>	<p>Biological CO2 Fixation Using Neochloris Oleoabundans in Batch Photobioreactor</p> <p><i>Shaikh Razzak</i></p>	<p>Sustainable Design for Zero Carbon Architecture</p> <p><i>Mahmoud Al-temmamy, Lamiaa Abd-Rabo</i></p>
15:10 - 15:30	<p>Renewable Energy Policy in the Jordanian water sector: Towards green sector</p> <p><i>Wael Elayyan, Louy Qoaidar, Haneen Sa'deh</i></p>	<p>Optimization of Sludge Fermentation for Volatile Fatty Acids Production</p> <p><i>Sultan Salamah, Andrew Randall</i></p>	<p>A Methodology for Energy Simulation of Residential Buildings a Case Study for Amman</p> <p><i>Ahmad Altarabsheh, Nisreen Rababaa, Ayat Smadi, Doha Obeidat</i></p>
15:30 - 15:50	Coffee Break		
15:50 - 16:10	<p>Performance of Membrane Distillation Integrated Solar Co-Generation of Heat and Pure Water in Different Climates</p> <p><i>Uday Kumar, Mousa Mohsen, Andrew Martin</i></p>	<p>Experimental Study of Rice Bran Based Bio Oil as Lubricant in Turning Operation</p> <p><i>Lalhminganga Hauchhum, Renjith Krishnan, Gokul Gopan,</i></p>	<p>Market Driven Sustainable Construction and Demolition Waste in UAE</p> <p><i>Liza Macasukit-Gernal</i></p>

		<i>Satyajit Pattanayak</i>	
16:10 - 16:30	Performance of Solar-Distillation Integrated Greenhouses <i>Isam Janajreh, Syed Shabbar Raza</i>	On the Dynamical Performance of DC Motor Powered by Lead-Acid Battery <i>Ahmad Harb</i>	
16:30 - 16:50	Optimization Study for Air Gap Membrane Distillation System for Desalination: Condensation Plate Thickness Effect <i>Habis Alzoubi, Fahad Al-Amri</i>	Thermoacoustic Engine Pressure Wave: Analysis of Working Fluid Effect <i>Somayya Elshabrawy, Isam Janajreha</i>	

Day 3- November 15, 2018:

9:00 - 9:20	Decarbonizing Water Utilities: Madaba Water Utility, Jordan <i>Bassam Hayek, Salam Al Momany, Mohammad Al Malla, Mona Bataineh</i>	Damage Identification of HAWT Blades using Power Spectral Density and Kriging Analysis: Numerical Study <i>Ameen El-Sinawi, Mohammed Awadallah, Isam Janajreh</i>
9:20 - 9:40	Municipal solid waste (MSW) Gasification: Material characterization and Numerical simulation <i>Syed Shabbar Raza, Isam Janajreh</i>	Techno-economic Aspects of Electricity Generation from a Farm Based Biogas Plant <i>Lena Jarrar, Osama Ayadi, Jamil J. J. Al Asfar</i>
9:40 - 10:00	Novel class of nanofiltration (NF) polymeric nanocomposites for heavy metal removal from water <i>Ahmad Telfah, Inshad Jum'h, Yousef Al-Abdallat</i>	Data Analytics Solutions for Enhancing Policy and Regulations in the Energy Sector - Carbon Capture and Sequestration (CCS) Technology <i>Karthik Balaji , Minou Rabiei</i>
10:00 - 10:30	Coffee Break	
10:30 - 11:15	Mr. Youssef Arfaoui Keynote Title: RE development through the years (Evolution of technology and cost implication)	
11:15 – 12:00	Prof. Mohammed Ismail Keynote Title: Energy Harvesting : From Wireless Charging for Automotive to IoT Wearables for Health Care	
12:00 - 13:30	Lunch	

13:30 - 15:30	AURAK Renewable Energy Competition (Poster presentations)
15:30 - 16:00	Break
16:00 - 16:30	Closing Session
16:30 - 17:00	AURAK Renewable Energy Competition Results