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# WESCE'19

World Energy Strategies  
Congress and Exhibition

**26-28 August 2019**

Yildiz Technical University  
Davutpaşa Congress Center  
Istanbul, Turkey

**Scientific Program**

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## SCIENTIFIC PROGRAM

07:30-9:00	<b>Registration</b>
<b>Opening and Plenary Talks</b>	
<b>Location: Main Hall</b>	
9:00-12:30	Prof. Dr. Bahri Sahin, <i>Congress Chair</i>
	Mr. Bulent Akarcali, <i>Former Minister, Ministry of Tourism and Ministry of Health</i>
	Mr. Taner Yildiz, <i>Former Minister of Energy and Natural Resources</i>
	Dr. Reza Moridi, <i>Former Minister of Research, Innovation and Science, Canada</i>
	Prof. Dr. Hasan Mandal, <i>President, The Scientific and Technological Research Council of Turkey (TUBITAK)</i>
	Prof. Dr. Muzaffer Seker, <i>President, Turkish Academy of Sciences (TUBA)</i>
	Prof. Dr. Anton Anton, <i>Romanian Minister of Energy</i>
	Mr. Hasan Tacoy, <i>Minister of Economy and Energy, Turkish Republic of Northern Cyprus</i>
12:30-14:00	Mr. Mustafa Varank, <i>Minister of Industry and Technology</i>
	Mr. Fatih Donmez, <i>Minister of Energy and Natural Resources</i>
	<b>Lunch</b>

Parallel Session 1		
	Main Hall	Ottoman Hall
	<b>Panel Discussion Session-1</b> <i>Energy and Climate Change</i>	<b>Panel Discussion Session-2</b> <i>Energy Efficiency</i>
	<b>Moderator: Prof. Dr. Cengiz Ozkan</b>	<b>Moderator: Mr. Peter Creaton</b>
14:00 - 15:30	Prof. Dr. Zekai Sen, <i>Istanbul Technical University</i> Prof. Dr. Ilhami Yildiz, <i>Dalhousie University</i> Prof. Dr. Mihri Ozkan, <i>University of California</i> Dr. Umit Sahin, <i>Sabanci University Istanbul Policy Center</i> Mr. Zafer Ure, <i>PCM Products</i>	Prof. Dr. Sener Oktik, <i>Sisecam</i> Prof. Dr. M. Pinar Menguc, <i>Ozyegin University</i> Dr. Yadollah Saboohi, <i>Sharif University of Technology</i> Prof. Dr. Sandro Nižetić, <i>Split University</i>
15:30-16:00	Coffee Break	
Parallel Session 2		
	Main Hall	Ottoman Hall
	<b>Panel Discussion Session-3</b> <i>Energy Financing</i>	<b>Panel Discussion Session-4</b> <i>Energy Law and IP Rights/Patents</i>
	<b>Prof. Dr. Ilhami Yildiz</b>	<b>Moderator: Prof. Dr. Mesut Hakki Casin</b>
16:00-18:00	Mr. Volkan Simsekalp, <i>Integra Broker</i> Mr. Yigit Emre Bilmis, <i>Garanti BBVA</i> Mr. Mahmood Khaghani, <i>RIEMP-University of Tehran</i> Mr. Chris Cook, <i>University College London</i> Dr. Huzur Keskin, <i>Middle East Technical University Alumni Office</i>	Dr. Cem Cagatay Orak, <i>Cakmak Law Office</i> Mr. Omer Kesikli, <i>Kesikli Law Firm</i> Dr. Taner Sahin, <i>Ondokuz Mayis University</i> Mr. Cemil Baspinar, <i>TPE</i> Mrs. Asena Cansu Yildiz, <i>Busson &amp; Sikorski, P.C.</i>
18:00-20:00	Welcoming Reception	

Parallel Session 1		
Erturk Hall	Red Hall	Green Hall
<b>Invited Speakers Session-1</b> <i>Internet of Energy Things</i>	<b>Invited Speakers Session-2</b> <i>Energy, Innovation and Commercialization</i>	<b>Invited Speakers Session-3</b> <i>Bioenergy Policies and Strategies</i>
<b>Chair: Prof. Dr. Yunus A. Cengel</b>	<b>Chair: Dr. Atef Mohany</b>	<b>Chair: Prof. Dr. Iskender Gokalp</b>
Dr. Khalid Elgazzar, <i>Canada Research Chair in the Internet of Things</i> Mrs. Gizem Kusoglu, <i>Tupras</i> Mr. Yusuf Kaya, <i>Siemens</i>	Dr. Reza Moridi, <i>Former Minister of Research, Innovation and Science</i> Dr. Osman Coskun, <i>Republic of Turkey Science Technology and Innovation Policies Board</i> Prof. Dr. Ibrahim Dincer, <i>TUBA</i>	Prof. Dr. M. Hakki Alma, <i>Igdir University</i> Prof. Dr. Adnan Midilli, <i>National Hydrogen Association</i>
		<b>Invited Speakers Session-4</b> <i>Energy and Aviation</i> Prof. Dr. Abdul Ghani Olabi, <i>University of Sharjah</i>
Coffee Break		
Parallel Session 2		
Erturk Hall	Red Hall	Green Hall
<b>Invited Speakers Session-5</b> <i>Energy Modelling, Simulation and Optimization</i>	<b>Invited Speakers Session-6</b> <i>Energy Storage Policies and Strategies</i>	<b>Invited Speakers Session-7</b> <i>Hydrogen Energy Policies and Strategies</i>
<b>Chair: Prof. Dr. Abdul Ghani Olabi</b>	<b>Chair: Dr. Nader Javani</b>	<b>Chair: Prof. Dr. Sandro Nižetić</b>
Prof. Dr. Zekai Sen, <i>Istanbul Technical University</i> Prof. Dr. Hasan Sadikoglu, <i>Yildiz Technical University</i> Dr. Shahryar Rahnamayan, <i>Ontario Tech University</i> Dr. Behnam Mohammadi, <i>Iran Energy Association</i>	Mr. Zafer Ure, <i>PCM Products</i> Prof. Dr. Cengiz Ozkan, <i>University of California</i> Prof. Dr. Mihri Ozkan, <i>University of California</i> Prof. Dr. Yucel Sahin, <i>Yildiz Technical University</i>	Prof. Dr. Ibrahim Dincer, <i>TUBA</i> Prof. Dr. Iskender Gokalp, <i>French National Centre for Scientific Research</i> Prof. Dr. Adnan Midilli, <i>National Hydrogen Association</i> Dr. Suha Yazici, <i>TUBITAK</i>
Welcoming Reception		

Parallel Session 3		
	Main Hall	Ottoman Hall
9:00- 10:30	<b>Invited Speaker Session-8</b> <i>Artificial Intelligence in Energy and Cybersecurity for Energy Systems</i>	<b>Panel Discussion Session-5</b> <i>Demand Side Management</i>
	<b>Chair: Dr. Atef Mohany</b>	<b>Moderator: Prof. Dr. M. Hakki Alma</b>
	Prof. Dr. Yunus A. Cengel, <i>University of Nevada</i> Prof. Dr. Ilhami Colak, <i>Nisantasi University</i> Prof. Dr. Cetin Kaya Koc, <i>Istinye University</i> Dr. Shahryar Rahnamayan, <i>Ontario Tech University</i>	Dr. Behnam Mohammadi, <i>Iran Energy Association</i> Dr. Amjad Anvari-Moghaddam, <i>Aalborg University</i> Prof. Dr. Birol Kilkis, <i>ASHRAE</i> Prof. Dr. Adnan Midilli, <i>National Hydrogen Association</i>
10:30-11:00	Coffee Break	
Parallel Session 4		
	Main Hall	Ottoman Hall
11:00-12:30	<b>Panel Discussion Session-6</b> <i>Energy and Sustainable Development</i>	<b>Panel Discussion Session-7</b> <i>Energy Economics</i>
	<b>Moderator: Prof. Dr. Birol Kilkis</b>	<b>Moderator: Prof. Dr. Bassam Fattouh</b>
	Prof. Dr. Adnan Midilli, <i>National Hydrogen Association</i> Prof. Dr. M. Pinar Menguc, <i>Ozyegin University</i> Mr. Serhan Suzer, <i>EkoRe Renewable Energy</i> Dr. Vlasta Zanki, <i>HEP ESCO</i>	Mrs. Nazli Naseh, <i>Montel-Foreks</i> Dr. Yadollah Saboohi, <i>Sharif University of Technology</i> Dr. Huzur Keskin, <i>Middle East Technical University Alumni Office</i> Mr. Chris Cook, <i>University College London</i> Dr. Tunc Durmaz, <i>Yildiz Technical University</i>
12:30-14:00	Lunch	

Parallel Session 3		
Erturk Hall	Red Hall	Green Hall
<b>Invited Speakers Session-9</b> <i>Energy Marketing</i>	<b>Invited Speakers Session-10</b> <i>Energy Policies and Future Directions</i>	<b>Invited Speakers Session-11</b> <i>Energy, Human Health and Welfare</i>
<b>Chair: Dr. Huzur Keskin</b>	<b>Chair: Prof. Dr. Ibrahim Dincer</b>	<b>Chair: Prof. Dr. Safa'a Riad</b>
Mr. Ahmet Turkoglu, <i>EXIST</i> Prof. Dr. Bassam Fattouh, <i>University of London</i> Mr. Mahmood Khaghani, <i>RIEMP-University of Tehran</i> Mr. Chris Cook, <i>University College London</i>	Dr. Reza Moridi, <i>Former Minister of Research, Innovation and Science</i> Prof. Dr. Sandro Nizetic, <i>University of Split</i> Prof. Dr. Tanay Sidki Uyar, <i>Marmara University</i>	Prof. Dr. Bayram Yilmaz, <i>Yeditepe University</i> Prof. Dr. M. Pinar Menguc, <i>Ozyegin University</i> <b>Invited Speakers Session-12</b> <i>Energy Publications and Future Directions</i> Mr. Peter Creaton, <i>Wiley Energy Publications</i>
Coffee Break		
Parallel Session 4		
Erturk Hall	Red Hall	Green Hall
<b>Invited Speakers Session-13</b> <i>Energy Education and Training</i>	<b>Invited Speakers Session-14</b> <i>Energy Security and Strategies</i>	<b>Invited Speakers Session-16</b> <i>Energy Industry</i>
<b>Chair: Dr. Shahryar Rahnamayan</b>	<b>Chair: Dr. Amjad Anvari-Moghaddam</b>	<b>Chair: Prof. Dr. Mesut Guner</b>
Prof. Dr. Ilhami Yildiz, <i>Dalhousie University</i> Prof. Dr. Gary Grossman, <i>Arizona State University</i> Prof. Dr. Cengiz Ozkan, <i>University of California</i>	Prof. Dr. Oktay F. Tanrisever, <i>Middle East Technical University</i> Mr. Suleyman Mert, <i>BBS</i> <b>Invited Speakers Session-15</b> <i>Energy Risks and Assessment Policies</i> Mr. Volkan Simsekalp, <i>Integra Broker</i>	Prof. Dr. Sener Oktik, <i>Sisecam</i> Mr. Hasan Cep, <i>Alper Inc.</i> Mr. Basar Beyazoglu, <i>RENESCO</i>
Lunch		

Parallel Session 5		
	Main Hall	Ottoman Hall
	<b>Panel Discussion Session-8</b> <i>Renewable Energy Policies and Strategies</i>	<b>Panel Discussion Session-9</b> <i>Energy and Water</i>
	<b>Moderator: Mr. Peter Creaton</b>	<b>Moderator: Dr. Atef Mohany</b>
14:00-15:30	Prof. Dr. Tanay Sidki Uyar, <i>Marmara University</i> Mr. Halil Demirdag, <i>GENSED</i> Mr. Yasin Kasirga, <i>GE Renewable Energy</i> Mrs. Ayse Ceren Sari, <i>SHURA</i> Dr. Ibrahim Erden, <i>Kalyon Energy</i>	Prof. Dr. Zekai Sen, <i>Istanbul Technical University</i> Prof. Dr. Ilhami Yildiz, <i>Dalhousie University</i> Prof. Dr. S. M. Seyed Mahmoudi, <i>University of Tabriz</i> Prof. Dr. Safa'a Riad, <i>Cairo University</i> Dr. Egemen Sulukan, <i>National Defense University</i>
15:30-16:00	Coffee Break	
Parallel Session 6		
	Main Hall	Ottoman Hall
	<b>Panel Discussion Session-10</b> <i>Energy and Clean Transportation</i>	<b>Panel Discussion Session-11</b> <i>Nuclear Energy Policies and Strategies</i>
	<b>Moderator: Prof. Dr. Oguz Salim Sogut</b>	<b>Moderator: Prof. Dr. Birol Kilkis</b>
16:00-18:00	Prof. Dr. Ahmet Dursun Alkan, <i>National Defense University</i> Dr. Zhiming Yuan, <i>University of Strathclyde</i> Prof. Dr. Enrico Sciubba, <i>Sapienza University of Rome</i> Mr. Basar Beyazoglu, <i>RENESCO</i> Dr. Esra Sorguven, <i>University of Sussex</i>	Prof. Dr. Sumer Sahin, <i>Bahcesehir University</i> Dr. Gursel Karahan, <i>TAEK Çekmece Nuclear Research and Training Centre</i> Prof. Dr. Ahmet Durmayaz, <i>Istanbul Technical University</i> Dr. Atef Mohany, <i>Ontario Tech University</i> Dr. Artac Turker, <i>TUBITAK</i>
18:00-20:00	Gala Dinner & Award Ceremony	

Parallel Session 5		
Erturk Hall	Red Hall	Green Hall
<b>Invited Speakers Session-17</b> <i>Energy Materials</i>	<b>Invited Speakers Session-18</b> <i>Energy Politics</i>	<b>Invited Speakers Session -20</b> <i>Alternative Energy Dimensions</i>
<b>Chair: Prof. Dr. Adnan Midilli</b>	<b>Chair: Dr. Esra Sorguven</b>	<b>Chair: Prof. Dr. Yunus A. Cengel</b>
Prof. Dr. Husam N. Alshareef, <i>King Abdullah University</i> Dr. Hasan Huseyin Erdogan, <i>NATEN</i> Mr. Hasan Cep, <i>Alper Inc.</i>	Prof. Dr. Mesut Hakki Casin, <i>Yeditepe University</i> Prof. Dr. Oktay F. Tanrisever, <i>Middle East Technical University</i> <b>Invited Speakers Session-19</b> <i>Energy Transition</i> Dr. Taner Sahin, <i>Ondokuz Mayıs University</i> Prof. Dr. Enrico Sciubba, <i>Sapienza University of Rome</i>	Prof. Dr. Ibrahim Dincer, <i>TUBA</i> Prof. Dr. Birol Kilkis, <i>ASHRAE</i> Dr. Vlasta Zanki, <i>HEP ESCO</i>
Coffee Break		
Parallel Session 6		
Erturk Hall	Red Hall	Green Hall
<b>Invited Speakers Session-21</b> <i>Energy and Digitalization</i>	<b>Invited Speakers Session-22</b> <i>Energy Projects and Future Directions</i>	<b>Invited Speakers Session-24</b> <i>Energy and International Relations/Cooperation</i>
<b>Chair: Prof. Dr. Hasan Sadikoglu</b>	<b>Chair: Dr. Hatice Eser Okten</b>	<b>Chair: Prof. Dr. Yucel Sahin</b>
Prof. Dr. Galip Cansever, <i>Yildiz Technical University</i> Mr. Serkan Hotoglu, <i>OMV</i> Mr. Argun Karacay, <i>Pure Energy</i> Dr. Huseyin Halici, <i>HALICI GROUP</i>	Prof. Dr. Yunus A. Cengel, <i>University of Nevada</i> Prof. Dr. Ilhami Yildiz, <i>Dalhousie University</i> <b>Invited Speakers Session-23</b> <i>Energy History</i> Prof. Dr. Beril Tugrul, <i>Istanbul Technical University</i> Prof. Dr. Ilhami Yildiz, <i>Dalhousie University</i>	Mr. Bulent Akarcali, <i>Ministry of Tourism and Ministry of Health</i> Prof. Dr. Mehmet A. Okur, <i>Yildiz Technical University</i> Mrs. Nazli Naseh, <i>Montel-Foreks</i> Prof. Dr. Valery I. Salygin, <i>International Fuel and Energy Industry Academy</i> Mr. Oleksandr Kryvenko, <i>Busson &amp; Sikorski, P.C.</i>
Gala Dinner & Award Ceremony		

Parallel Session 7		
	Main Hall	Ottoman Hall
9:00- 10:30	<b>Panel Discussion Session-12</b> <i>Energy, Innovation and Commercialization</i>	<b>Panel Discussion Session-13</b> <i>Waste to Energy</i>
	<b>Moderator: Prof. Dr. Yunus A. Cengel</b>	<b>Moderator: Dr. Hatice Eser Okten</b>
	Prof. Dr. Ilhami Yildiz, <i>Dalhousie University</i> Prof. Dr. M. Pinar Menguc, <i>Ozyegin University</i> Prof. Dr. Gary Grossman, <i>Arizona State University</i> Prof. Dr. Cengiz Ozkan, <i>University of California</i> Dr. Vlasta Zanki, <i>HEP ESCO</i>	Prof. Dr. Abdul Ghani Olabi, <i>University of Sharjah</i> Mr. Mevlut Fatih Peker, <i>ISTAC</i> Mr. Ahmet Musluoglu, <i>Hochreiter Biogas</i> Mr. Ilyas Cem Ozsuer, <i>Synpet Technologies</i> Prof. Dr. Safa'a Riad, <i>Cairo University</i>
10:30-11:00	Coffee Break	
Parallel Session 8		
	Main Hall	Ottoman Hall
11:00-12:30	<b>Panel Discussion Session-14</b> <i>Energy Strategies and Future Directions</i>	<b>Invited Speakers Session-26</b> <i>Energy, Food and Agriculture</i>
	<b>Moderator: Prof. Dr. Gary Grossman</b>	<b>Chair: Prof. Dr. Husam N. Alshareef</b>
	Prof. Dr. Tanay Sidki Uyar, <i>Marmara University</i> Prof. Dr. Yunus A. Cengel, <i>University of Nevada</i> Dr. Vlasta Zanki, <i>HEP ESCO</i> Mr. Ibrahim Toprak, <i>TEMSAN</i> Dr. Erdem Ulas, <i>ASAM</i>	Prof. Dr. Bayram Yilmaz, <i>Yeditepe University</i> Prof. Dr. Ilhami Yildiz, <i>Dalhousie University</i> Dr. Esra Sorguven, <i>University of Sussex</i>
12:30-14:00	Lunch	

Parallel Session 7			
	Erturk Hall	Red Hall	Green Hall
	<b>Invited Speakers Session-25</b> <i>Nuclear Energy and Future Directions</i>		
	<b>Chair: Prof. Dr. Mihri Ozkan</b>		
	Dr. Artac Turker, <i>TUBITAK</i> Prof. Dr. Namik Kemal Aras, <i>TUBA</i> Dr. Atef Mohany, <i>Ontario Tech University</i>		
	Coffee Break		
Parallel Session 8			
	Erturk Hall	Red Hall	Green Hall
	<b>Invited Speakers Session-27</b> <i>Energy Diversification</i>		
	<b>Chair: Dr. Ozan Erdinc</b>		
	Dr. Izzet Alagoz, <i>EUAS</i> Dr. Cihad Terzioglu, <i>Nice Energy and Engineering</i> Dr. Abdulkerim Yorukoglu, <i>BOREN</i> Mr. Cihan Karamik, <i>EYODER</i>		
	Lunch		

Parallel Session 9		
	Main Hall	Ottoman Hall
	Renewable Energy – I	Energy Conversion & Storage – I
	<p><b>Session Chair: Prof. Dr. Tanay Sidki Uyar</b></p> <p><b>#32</b> "Performance Investigation of a Biomass Assisted Geothermal Power Plant Integrated with Desalination Unit" <i>H Ganjehsarabi, M Asker, P Heidarnajad &amp; S Khanmohammadi</i></p> <p><b>#20</b> "A Review on Well Integrity Issues in Geothermal Wells" <i>P Allahvirdizadeh</i></p> <p><b>#24</b> "Halloysite and Ytria Supported Ni-based Catalysts in Partial Oxidation of Biomass Model Gas" <i>M Karaismailoglu, HE Figen &amp; SZ Baykara</i></p> <p><b>#31</b> "Impacts of Grid-Integrated Wind Turbines with Scenario-based Load Flow Analysis According to Demand Power" <i>KE Cankiri, E Gokalp &amp; MT Turan</i></p> <p><b>#36</b> "Thermodynamic and Exergoeconomic Analyses and Optimization of a Novel Geothermal-based Cogeneration Cycle" <i>S. Mohammad S. Mahmoudi &amp; Nima Javanshir</i></p> <p><b>#40</b> "Renewable Energy Based Distributed Generation Modeling and Energy Efficiency in Rural Area Network" <i>A Demirci, MT Turan &amp; SM Tercan</i></p> <p><b>#87</b> "Geothermal Energy: Current Status in Boron Recovery" <i>AY Gören, T Uzelli, H Eser Ökten &amp; A Baba</i></p>	<p><b>Session Chair: Dr. Mehmet Akif Ezan</b></p> <p><b>#19</b> "Cyclic Performance Evaluation of a Packed Bed Latent Heat Thermal Energy Storage System under Real Weather Conditions" <i>E Alptekin &amp; MA Ezan</i></p> <p><b>#22</b> "A Case Study of Energy Storage System in Distribution Grid for Different Strategies" <i>SM Tercan &amp; E Gökalp</i></p> <p><b>#21</b> "Consumer-based Smart-meter Model in Electrical Energy Market" <i>S Aliparast &amp; G Kayakutlu</i></p> <p><b>#41</b> "On-Chip Hybrid DC-DC Buck Converter for Point-of-Load Regulation with Reduced Ripple Voltage by Maximum Power Point Tracking (MPPT)" <i>M Rostami, N Nasirzadeh Azizkandi &amp; S Aliparast</i></p> <p><b>#52</b> "A Novel Robust Control Approach for Time Delayed Generator Excitation System" <i>MT Özdemir</i></p> <p><b>#55</b> "Analyse of a Combined Rankine and Brayton Cycle Solar Tower Power System Using Latent Heat Thermal Energy Storage" <i>M Rahimi, E Bekdemir, N Javani &amp; Z Yumurtacı</i></p> <p><b>#83</b> "The Effect of Islanding on Harmonic Distortion in the Inverter-Based Microgrid" <i>A Kaymaz Ozcanli &amp; M Baysal</i></p>
14:00-15:30		
15:30-16:00	Coffee Break	

Parallel Session 9		
Erturk Hall	Red Hall	Green Hall
Modeling of Energy Systems – I	Energy Aspects	Hydrogen & Fuel Cells – I
<p><b>Session Chair: Dr. Ahmet Selim Dalkilic</b></p> <p><b>#45</b> "Examination of Lithium-Ion and Lithium-Iron Phosphate Thermal Management" <i>B Tarhan, O Yetik &amp; TH Karakoc</i></p> <p><b>#82</b> "Investigation of Airport Terminal Buildings Environmental Energy Sustainability with Eco-Indicators" <i>Alper Dalkiran, M Ziya Sogut, Emin Acikkalp &amp; T Hikmet Karakoc</i></p> <p><b>#07</b> "Cold Energy Utilization of Liquefied Natural Gas During Regasification Process" <i>I Duyar &amp; Y Salt</i></p> <p><b>#27</b> "Scenario-based Optimization of a New Integrated System for Energy Recovery from Low-Grade Temperature Source" <i>M Saadat-Targhi, S Khanmohammadi, FW Ahmed &amp; H Ganjehsarabi</i></p> <p><b>#33</b> "Parametric Investigation and the Performance Assessment of Thermoelectric Cooler" <i>M Asker</i></p> <p><b>#71</b> "Numerical Investigation on Heat Transfer and Pressure Drop Characteristics of Helically Coiled Heat Exchangers" <i>SM Kirkar, K Iren, A Gonul, A Celen &amp; AS Dalkilic</i></p> <p><b>#69</b> "The Effect of FOPI Controller to Performance of PEMFC for Long Endurance Unmanned Aerial Vehicle" <i>ZU Bayrak</i></p>	<p><b>Session Chair: Prof. Dr. Mehmet Karakilcik</b></p> <p><b>#25</b> "The Use of Mechanochemically Synthesized Iron Based Oxygen Carriers in Chemical Looping Combustion" <i>M Durmaz, N Dilmaç &amp; ÖF Dilmaç</i></p> <p><b>#26</b> "In Silico Investigation into H2 Uptake in MOFs: Combined Text/Data Mining and Structural Calculations" <i>O Tayfuroglu, A Kocak &amp; Y Zorlu</i></p> <p><b>#12</b> "Contribution to Wastewater Treatment Using Natural Algerian Clay" <i>M Boufatit, S Athman &amp; F Mohammed-Azizi</i></p> <p><b>#72</b> "Energy Policies for Economic Development in Some African Countries" <i>M Bildirici &amp; F Kayıkçı</i></p> <p><b>#37</b> "Transactive Energy Management-based Scheduling of Microgrids with Hydrogen Energy Storage" <i>M Daneshvar, B Mohammadi Ivatloo, K Zare &amp; S Asadi</i></p> <p><b>#77</b> "Turkey's Oil and Natural Gas Exploration and Drilling Activities in the Eastern Mediterranean, the Legal Framework and Dispute Resolution" <i>AC Yildiz</i></p> <p><b>#84</b> "Oxy-Cracked Petcoke as a Clean Fuel for Power Generation" <i>A Manasrah</i></p>	<p><b>Session Chair: Prof. Dr. Adnan Midilli</b></p> <p><b>#23</b> "Effect of Promoters on Cuco Catalyst for Hydrogen Production from Sodium Borohydride" <i>E Balkanli &amp; HE Figen</i></p> <p><b>#34</b> "Capacity Value of Power to Hydrogen Storage Technology in Multi-Carrier Energy Systems" <i>MA Mirzaei, M Nazari-Heris, A Loni, BM Ivatloo, K Zare &amp; M Marzband</i></p> <p><b>#14</b> "Green Bio-additive Synthesis using Green Catalyst: Production of Glycerol Carbonate from Glycerol and Dimethyl Carbonate by Eggshell Loaded Chitosan" <i>N Hilmioglu &amp; NY Yuzer</i></p> <p><b>#15</b> "Contamination of Pt Catalyst with Carbon Monoxide during Hydrogen Evolution" <i>A Yilmaz &amp; U Pasaogullari</i></p> <p><b>#38</b> "Comparative Assessment of Different High Temperature Electrolytic Methanol Production Cycles" <i>F Khalid &amp; Y Bicer</i></p> <p><b>#48</b> "Performance Analysis of a Hydrogen Fuel Cell Hybrid System for Unmanned Aerial Vehicle" <i>G Yalin, E Özbek, L Akyalçin, CO Colpan &amp; H Karakoç</i></p> <p><b>#59</b> "Investigation of Hydrogen Storage Potential of Tuz Gölü Underground Salt Caverns" <i>S San, H Karakilcik &amp; M Karakilcik</i></p>
	Coffee Break	



Parallel Session 10		
	Main Hall	Ottoman Hall
	Renewable Energy – II	Energy Conversion & Storage – II
	Session Chair: Prof. Dr. İlhami Yıldız	Session Chair: Dr. Mohamad Ramadan
16:00-17:30	<b>#89</b> "Analysis of an Ocean and Wind Energy Based Pumped Hydro Storage System" <i>F Sorgulu &amp; I Dincer</i>	<b>#68</b> "Experimental Investigation of Ni-63 Radioisotope-Powered Betavoltaic Nuclear Battery" <i>E Kam &amp; S Aydın</i>
	<b>#18</b> "Optimal Sizing Strategy for Hybrid Renewable Energy System: A Case Study" <i>A Demirci, SM Tercan &amp; A Durusu</i>	<b>#73</b> "Electrochemical Preparation of Sulphur-Doped Graphene Oxide Electrodes and Their Vanadium Redox Battery Application" <i>MG Ersozoglul, H Gursu, M Gençten, AS Sarac &amp; Y Şahin</i>
	<b>#42</b> "Parabolic Trough Solar Collectors with a Low-Temperature Geothermal Source for Electricity and Hydrogen Production" <i>A Atiz, H Karakilcik &amp; M Karakilcik</i>	<b>#74</b> "Electrochemical Behaviour of Graphite Based Electrode in Co(II)/Cr(III) Based Redox Flow Battery" <i>N Koçyiğit, M Gençten, M Şahin &amp; Y Şahin</i>
	<b>#43</b> "Energy, Exergy and Economic Analyses of a Heat Pump Integrated with Solar Pond for Domestic Heating" <i>A Atiz, H Karakilcik &amp; M Karakilcik</i>	<b>#75</b> "Graphene Oxide as an Additive for Gel Electrolyte Systems of Valve Regulated Lead Acid Batteries" <i>A Mansuroğlu, C Kiraz, B Sayhan, A Akgümüş, MB Arvas, M Gençten, M Şahin &amp; Y Şahin</i>
	<b>#58</b> "Investigation of Performance of Surface Water Cooled Photovoltaic Panel" <i>H Oksuz, M Cilogulları &amp; M Karakilcik</i>	<b>#76</b> "N-Doped Graphene Based Electrodes for Supercapacitor Applications" <i>MB Arvas, M Gençten &amp; Y Şahin</i>
	<b>#80</b> "Performance Analysis and Evaluation of Geothermal-Based Multigeneration System for Multi-Production" <i>YE Yüksel, M Ozturk &amp; I Dincer</i>	<b>#86</b> "Remote Implementation of Auxiliary Tests at Electrical Power Plants" <i>I Kocaarlan</i>
	<b>#81</b> "Design and Assessment of Concentrating Solar Collector Based Multigeneration Plant for Compressed Hydrogen and Ammonia Production" <i>N Tükenmez, M Koç &amp; M Öztürk</i>	<b>#67</b> "Exergoeconomic Analysis of a Crude Oil Distillation Plant" <i>ÖF Dilmaç, MS Mert, S Özkan, F Karaca &amp; E Bolat</i>
15:30-16:00	Coffee Break	

Parallel Session 10		
Erturk Hall	Red Hall	Green Hall
Modeling of Energy Systems – II	Energy & the Environment	Hydrogen & Fuel Cells – II
Session Chair: Dr. Zhiming Yuan	Session Chair: Prof. Dr. Tahir Hikmet Karakoc	Session Chair: Dr. Farrukh Khalid
<b>#17</b> "Energy and Exergy Analysis of Ship High Pressure Air Systems" <i>AS Karakurt, I Ozsari &amp; V Bashan</i>	<b>#29</b> "The Effect of Shading on Reaching Nearly Zero Energy Office Buildings in Izmir" <i>AS Cildir, A Tokuç &amp; G Kokturk</i>	<b>#46</b> "Estimation of PEM Fuel Cell Model Parameters Using Chaos Embedded Particle Swarm Optimization" <i>MT Ozdemir &amp; ZU Bayrak</i>
<b>#39</b> "Thermodynamic and Exergoeconomic Analysis of a New Biomass-based Multigeneration System with Hydrogen Production and LNG Regasification" <i>MH Taheri, L Khani, M Mohammadpourfard &amp; AE Konukman</i>	<b>#35</b> "Application of Thermal Conversion Process to Major Solid and Wet Wastes of Istanbul City" <i>F Callialp, S Teymur, D Bostan, O Yildirim, D Tunay, H Civelek Yoruklu &amp; B Ozkaya</i>	<b>#49</b> "Investigation of Underground Hydrogen Storage Areas" <i>H Karakilcik</i>
<b>#08</b> "A Comprehensive Process Design and Simulation of Bioethanol Production for Obtaining High Purity Bioethanol from Biomass" <i>OD Tunca, EF Düzenli, I Salt &amp; Y Salt</i>	<b>#60</b> "Gain and Phase Margins Based Stability Region Analysis of PI Controller for Fuel Cell Microgrid with Time Delays" <i>B Yıldırım &amp; MT Ozdemir</i>	<b>#54</b> "Multi-objective exergy-based optimization of a proton exchange membrane (PEM) fuel cell integrated with organic Rankine cycle" <i>A Azad, P Ahmadi &amp; N Javani</i>
<b>#61</b> "Numerical Investigation of Natural Convection Driven Phase Change Inside a Vertical LHTES Tank" <i>M Asker, D Akal &amp; MA Ezan</i>	<b>#66</b> "The Effect to Power System Oscillations of a PMSG-Based Wind Energy Generation System" <i>B Yıldırım &amp; MT Ozdemir</i>	<b>#56</b> "Status of Fuel Cell Technologies and Future Perspective for Turkey" <i>MS Yazici</i>
<b>#62</b> "Numerical Modeling of Double Pipe Condenser" <i>IF Yilmaz, MA Ezan &amp; J Duquette</i>	<b>#70</b> "A Study on Life Cycle Assessment in Aviation Industry" <i>D Çalışır, TH Karakoç &amp; A Midilli</i>	<b>#57</b> "Hydrogen Supply Network" <i>E Geçici &amp; MG Güler</i>
<b>#65</b> "EPSAT: MATLAB Based Education Program for Power Systems Analysis" <i>H Çakar &amp; MT Gençoğlu</i>	<b>#85</b> "Green-Green energy the road-map toward a pollution free environment" <i>M Ramadan &amp; AG Olab</i>	<b>#63</b> "Hydrogen Generation from Sodium Borohydride and Its Usage in PEM Fuel Cell: UAV and Vehicle Application" <i>FG Boyacı San, Ç İyigün Karadağ, B Erdör Türk, M Kılıç, O Okur, E Okumuş, MS Yazıcı &amp; E Çengelçi</i>
	<b>#88</b> "Sustainability Assessment of a Turboprop Aircraft Engine with Experimental Data" <i>T Karali, E Koruyucu &amp; TH Karakoc</i>	<b>#64</b> "Development of Direct Sodium Borohydride Fuel Cell for Mobile and Stationary Application" <i>Ç İyigün Karadağ</i>
Coffee Break		



