



Second International Conference on Energy Systems, (ICES-2016)
Yildiz Technical University, December 21-23, 2016, Istanbul, Turkey

Wednesday, December 21, 2016

Time	Location: Main Entrance
08:00-17:30	Registration

Time	Location: Auditorium (Room A)
	Opening Speeches (Session Chair: Dr. Hasan Heperkan)
09:00 - 09:30	• Dr. Zehra Yumurtaci, Conference Chair
	• Dr. Aysegul Akdogan Eker, Head of Mech. Eng. Department
	• Dr. Ismail Teke, Dean of Faculty
	• Dr. Bahri Sahin, President of Yildiz Technical University
09:30-10:10	• Keynote Talk: "Bringing Real World To Classroom In Thermodynamic Education", Dr. Yunus Cengel
10:10 - 10:30	Coffee Break
10:30 - 11:10	Keynote Talk: "A Critical Evaluation Of Potential Energy Solutions", Dr. Ibrahim Dincer
11:10 - 11:50	Keynote Talk: "Building An Interdisciplinary Framework For Energy Studies", Dr. Iskender Gokalp
11:50 - 12:30	Keynote Talk: "Heat Pumps for Energy and Water Conservation in Greenhouses", Dr. Ilhami Yildiz
12:30 - 14:00	Lunch Break
14:00 - 14:40	Keynote Talk: "Sustainable Solutions for The Future Considering Renewable Energy Technologies Especially Concentrating Solar Power", Dr. Ahmet Lokurlu
14:40 - 16:00	Panel Discussion Session on "Local and Global Energy Challenges and Solutions" (Chair: Dr. I. Dincer, Panelists: Dr. Y. Cengel, I. Gokalp, A. Lokurlu and I. Yildiz)
16:00 - 16:15	Coffee Break

Session 1

Location	Room A
Time	Hydrogen and Fuel Cell Systems- I Session Chair: Dr. Nader Javani
16:15 - 17:15	# 2002) Carbon Aerogel Supported Pt Nanoparticles via Supercritical Deposition as Electrocatalysts for PEMFCs: Effect of Particle Size and Support Pore Properties on Electrocatalytic Activity Ş. B. Barim, A. Bayrakceken Yurtcan, S. Erim Bozbag, L. Zang, R. Kizilel, M. Aindow, C. Erkey
	# 4001) Analysis and Assessment of an Advanced Hydrogen Liquefaction System A. Hammad, I. Dincer
	# 2078) Energy Efficiency in Pumps With Variable Speed Control A. Babadag, Z. Yumurtaci
	# 2206) Photocatalytic Hydrogen Production via Water Splitting Over Perovskites D. Saadetnejad, R. Yıldırım
17:15 - 18:45	Welcoming Reception

Poster Session

16:00- 18:45

- # 1944. Evaluation of Thermoelectric Performance of Sc₂Xal (X=Cu, Zn) By Using Ab Initio Calculations, **H. Kara**, K. Özdoğan
- # 1954. Theoretical and Experimental Studies of A Longitudinal Solar Dryer, **S.Kherrou**, A. Bouhdjar, S. Hanini, A. Boualit, R. Zarrif b
bashe
- # 1968. Numerical Prediction Nn Combined Free-forced Convection Heat Loss of Solar Cavities Receiver, **A. Toufik**, B. Adel, G. Amor, B.
- # 1975. Use of Change Phase Materials to Refresh the Air of a Building in the Arid Climate: Case Study of Ghardaia, Algeria , **M. K. Cherier**, T. Benouaz, S. M. Ela. Bekkouche, M Hamdani, B. Tidjar, R. Djeflal
- # 1977. Adsorption Isotherm and Molecular Dynamics Study of New Quinoline And Thiophene Compounds Are Environmental Green Corrosion Inhibitors, **D. Daoud**, T. Douadi
- # 1978. Prandtl Number Effects on Transient Laminar Mixed Convection in Receiver Tube Destined For A Solar Tower, D. Daoud, T. Douadi
- # 1984. Enhancement of Light Absorption in Silicon Solar Cells, A. **Ghania**
- # 1985 Insight into the Capacitive Properties of Azido Groups on Reduced Graphene Oxide, **U. Şahinturk**, A. Eekerim, B. Keskin, İ. Yilmaz
- # 1986. Sensing Properties of Reduced Graphene Oxide Thin Film Fabricated With Covalent Anchoring On Flexible Substrate, **B. Keskin**, U. Şahinturk, A. Altindal
- # 1995. Study and Realization of Optimal New Design of Heliostat for Concentrating Solar Tower Power Plant Prototype, **A. Gama**, F. Yettou, A. Malek, R. Khelifi
- # 2000. Parametric Investigation of Boric Acid Impregnation Process for the Active Carbon Production, **G. Akaydin**, A. Kanturk Figen
- # 2015. Effect of Aspect Ratio on Natural Convection Heat Transfer in Horizontal or Vertical Air Layer , **Z. Rida**, B. M. Seghir, K. Sofiane, A. Toufik
- # 2041 Modeling and Simulation Of Coal Fired Supercritical Power Plant, **A. V. Akkaya**
- # 2071. Theoretical Study of Wind Loads on Two CAD-models of Solar Heliostats, **H. Merarda**, A. Belaid, M. Aksas, T. Arif
- # 2136. Effect of Characteristics From the Window on the Balance Sheets and Energy | Effect of Characteristics From the Window on the Balance Sheets and Energy, **Hamdani M.** Bekkouche S.M.A, Benouaz, T., Belarbi R, Cherier M.K
- # 2147. Comparison of Design And Material Properties of First Green Buildings, **S. E. Çelik**
- # 2153. Prandtl Number Effects on Transient Laminar Mixed Convection in Receiver Tube Destined For A Solar Tower, **B. Abdelfetah**, K. Omar, A. Toufik
- # 2157. Co-pyrolysis of Ulva Prolifera Macroalgae-Coal Blends and Characterization of the Products Obtained, **Z. Yildiz**, S. Ceylan
- # 2158. Catalytic Co-Pyrolysis of Ulva Lettuce Macroalgae-Coal Blends: Thermal behavior and Biochar Production, **Z. Yildiz**, H. Uzun, S. Ceylan
- # 2159. Thermokinetic Investigation of Waste Tire Pyrolysis by TGA, **D. I. Aslan**, L. Aslan, S. Ceylan
- # 2160. Kinetic and Thermal Investigation of Fruit Waste Pyrolysis by TG-FTIR, **E. Musellim**, S. Ceylan
- # 2164. Bioethanol Production From C. Minutissima Cultivated in Lab-Scale Photobioreactor, B. Şerbetcioglu Sert, D. Özçimen, **B. İnan**
- # 2166. Investigation of Biogas Production From Oil Extracted Chlorella Minutissima Microalgae, **A. T. Kocer**, D. Özçimen
- #2168. A TG-FTIR and Kinetic Study of Euphorbia Pyrolysis, **E. Artun**, S. Ceylan
- #2171. Thermokinetic Study of Oak Tree Pyrolysis by Using TG-FTIR , **C. Palantoken**, S. Ceylan, F. Yapici
- #2177. Biodiesel Production From Waste Cooking Oil Using Low Cost Heterogeneous Catalysts, **E. Musellim**, C. Palantoken, Z. Yildiz, S. Ceylan, F. Geykic
- # 2178. Thermogravimetric Analysis and Kinetic Study of Corn Cob Pyrolysis, **D. I. Aslan**, L. Aslan, S. Ceylan
- # 2200. Numerical Optimization of Transport Current Losses for Superconducting Coil Stacks, **F. Inanir**, M. Erdogan, A. Cicek, O. Keysan, S. Yildiz
- #2212. Simulation of Concentrating Irradiance and Experimental Study on Solar Parabolic Dish Concentrator , **F. Yettou**, A. Gama, N. L. Panwar, A. Malek, B. Azoui, A. Kacem
- # 2265. Time Depended Hydrothermal Liquefaction Of Polygonum Amphibium, **O. Tezer**, H. Yigit, Y. Topcu
- # 2269. An Investigation of Energy Saving with Thermal, Physical and Chemical Properties of Plastic Parts Containing Zinc Borate in Automotive Industry, **A. Çakirsoy**, A. B. Özturk, H. İ. Özgunduz, N Acarali
- # 2270. A Study on Thermochemical and Biochemical Conversion Technologies for Biomass Residues, H. I. Ozgunduz, N. Acarali, A. B. Özturk, **A. Çakirsoy**, F. J. Gulen
- # 2271. Methylene Blue Removal from Aqueous Solutions by H₂O₂ -Modified Hydrochar Obtained from Sunflower Stalks , **H. Yigit**, M. Gedikbas, Y. Topcu, O. Tezer
- # 2277. The Catalyst Effect in Hydrothermal Liquefaction of Macroalgae Ulva Lactuca, **M. Gedikbas**, H. Yigit, Y. Topcu
- # 2280. Investigation of the Solvent Effect On The Hydrothermal Liquefaction Of Algal Biomass Ulva Lactuca , **M. Gedikbas**, H. Yigit, Y. Topcu
- # 2315. Phosphorous acid: An efficient and cost-effective liquid acid catalyst for the synthesis of α-aminophosphonates in aqueous media, **H. Abdelkader**
- # 2365. Fuzzy Control of Double Feed Induction Generator Used Wind Turbine Drive, **F. Omar**, M. Ahmed, B. M. Omar, D. Youcef
- # 2382. Thermokinetic Investigation of Waste Tire Pyrolysis by TGA, **D. I. Aslan**, L. Aslan, S. Ceylan
- # 2389. Thermodynamic Analysis and Optimization of Power and Hydrogen Generation System Driven By Solar Energy, **A. Noorpoor**, N. Hashemian, D. Hamed
- #2501. Biomass Productivity and Lipid Content of A Mixed Culture And Chlorella Sp., Both Fed By Secondary Effluent, N. Ozman Say, U. Sen, M. D. Guro
- # 2362) Design Parameters for PEM Fuel Cell Powered UAV, G. Yalin, T. Hikmet Karakoc

Thursday, December 22, 2016

Parallel Session 2

Location	Room A	Room B
Time	Hydrogen and Fuel Cell Systems- II	Sustainable Energy Systems- I
	Session Chair: Dr. C. Ozgur Colpan	Session Chair: Dr. Canan Acar
09:00 - 10:15	# 2087) Thermodynamic Analysis and Evaluation of A Fuel Cell Based Hybrid Vehicle M.F. Ezzat, I. Dincer,	#2274) Thermodynamic and Thermo-economic Comparisons of Two Trigenation Systems P. Heidarnejad, A. Noorpoor, I. Dincer
	# 2347) A Parametric Study on Exergoeconomic Analysis of High Pressure Hydrogen Storage M. Ozsaban, A. Midilli	# 2189) Thermal Analysis of Chestnut Biomass H. Sutcu, C. Efe
	# 2381) Catalytic hydrogen production via supercritical water gasification of almond shell over algal and agricultural hydrochar F. Safari, N. Javani	#2196) Co-pyrolysis of Biomass Waste and Lignite C. Efe, H. Sutcu
	# 2321) Energy and exergy analyses of a heat pipe based integrated system for hydrogen production V. Corumlu, A. Ozsoy, M. Öztürk	# 2208) Comparative Assessment of Three Integrated Trigenation Systems for Dairy Farms E. Sevinchan, I. Dincer
	# 2292) Innovation Parameters in Energy Systems A. Mildilli	# 2184) Effects of H2 enrichment on performance and emission characteristics of an industrial low swirl burner while burning hydrocarbons M. S. Cellek, A. Pinarbasi
10:15- 10:30	Coffee Break	

Parallel Session 3

Location	Room A	Room B
Time	Hydrogen and Fuel Cell Systems- III	Sustainable Energy Systems- II
	Session Chair: Dr. C. Ozgur Colpan	Session Chair: Dr. Canan Acar
10:30-11:45	#2282) Hydrogen Production from Biomass Gasification Y. Durak Çetin, A. Ersöz, A. Sariođlan, A. Zahid Turan, M. S. Mert, F. Yüksel, E. Halit Figen, N. Özgür Güldal, M. Karaismailođlu, S. Z. Baykara	# 1983) N-Doped Carbon Aerogels for Energy Applications S. Ünsal
	# 2320) Energy and exergy analyses of geothermal based integrated system for hydrogen production Y. Emre Yuksel, M. Özturk	# 1979) Determination of Minimum Energy Structures of Bimetallic Clusters Using A Genetic Algorithm E. Erdem, C. Erkey, R. Kizilel
	# 2276) Perovskite catalysts for hydrogen production from hydrogen sulfide N Özgür Guldal, H. Eren Figen, S. Z. Baykara	# 2229) Thermodynamic Analyses of a Solar-Based Combined Cycle Integrated with Electrolyzer F. Sorgulu, I. Dincer
	# 2305) Effect of Ruthenium Addition on Molybdenum Catalysts for Syngas Production via Catalytic Partial Oxidation of Methane in a Monolithic Reactor H. Eren Figen, S. Z. Baykara	#1965) Performance Analysis of Combine Marine Diesel Engine-Absorption Refrigeration System Ü. Gunes, A. S. Karakurt
	# 2318) Dry and Marginal Lands strategic role for Bio-hydrogen production in Turkey M. A. Khalvati, N. Javani	# 1966) The Role of the Ships in the Smart Electric Grid Systems K. Yigit, B. Acarkan

12:00 - 13:30

Lunch Break

Parallel Session 4		
Location	Room A	Room B
Time	Energy & Exergy Systems Session Chair: Dr. Ozgen U. Colak Cakir	Energy Conversion and Economics Session Chair: Dr. Hatice Mercan
13:30- 14:45	System With TEG And PEM For Hydrogen And Power Production M. Emre Demir, I. Dincer	# 1943) From Heat To Electricity: Energy Conversion Ability Of Sc2xal (X=Ti,V, Cr) Heusler Compounds H. Kara, K. Özdoğan
	# 2294) Exergetic Sustainability Aspects of a Heat-Recovered Process Steam and Hot Water Production System for a Tea Factory S. Yalcin , A. Midilli, A. S. Konukman	# 2322) Synthesis and characteristics of low concentration silver water nano-fluids for long term heat transfer applications M. Öztürk, V. Corumlu, A. Ozsoy
	# 2314) Energy and Exergy Analyses of A Novel Solar Driven Hydrogen Production System C. Acar, I. Dincer	# 2219) Kinetic Model for Zirconium Clad Oxidation in LWR A. Aryanfar, J. Marian
	# 2045) Energy, Exergy And Exergoenvironmental Assessments Of Solar Assisted Absorption Cooling Systems And Conventional Air-Conditioning System: A Comparative Study T. Abdul Hussain Ratlamwala, H. Alimoradian	# 2264) Investigation of Economical Aspect of Green Energy E. Genc, Z. Yumurtaci
	Failure of Appropriate Energy Management Is The Cause of Many Health Problems M. Ozilgen, B. H. Yalcinkaya, J. Çatak, B. Yilmaz	# 2123) Exergoeconomic and Thermo-economic Optimization of an Air Cooled Heat Exchanger With Copper Oxide Additive H. Hajabdollahi, N. Javani
14:45- 15:00	Coffee Break and Poster Session	
Parallel Session 5		
Location	Room A	Room B
Time	Renewable Energy Systems- I Session Chair: Dr. Ozgen U. Colak Cakir	Energy Management Session Chair: Dr. Hatice Mercan
15:00- 16:15	# 2043) Effect of Different Baffle Configurations on the Performance Of A Solar – Geothermal Shell And Tube Heat Exchanger Integrated With Parabolic Trough Solar Collectors A. Erdogan, C. Ozgur Colpan	# 1970) Hydro Energy Management and GAP Factor in Turkey I. Yuksel, H. Arman, I. Halil Demirel
	#2165) Designing and performance assessment of biomimetic flow-field plates for DMFC applications M. Ercelik, A. Ozden, D. Ouellette, H. Ganjehsarabil, C. Ozgur Colpan, F. Hamdullahpur	# 2173) Review of the Approaches to Provide Clean and Sustainable Transport Systems C. Gokmen, Z. Yumurtaci, C. Yildiz
	# 2067) Clean Fuel Options for Sea Transportation: A Life Cycle Approach Y. Bicer, I. Dincer	# 1973) Review of Relations between Particles and Rate of Air-Change in Clean Rooms E. Taha Eren
	# 2098) Optimization of Magnetization Losses for Superconducting Coil Stacks Used in Large Wind Turbines Generators F. İnanir, M. Erdogan, O. Keysan, A. Cicek, A. Ersoy, S. Yildiz	# 2152) An energy efficient production planning model using a day ahead prices: the case of a cement plant T. Emir, M. Guray Guler
	#1949) Computational Analysis of PEM Fuel Cell based on Different Channel Shaped Bipolar Plate Model, E. Eker Kahveçi, İmdat Taymaz	# 2176) Energy Efficiency In Lighting At Public Buildings And Comparative Cost Analysis Y. Demiroz, B. Acarkan
16:15- 16:30	Coffee Break	
Parallel Session 6		
Location	Room A	Room B
Time	Sustainable Energy Systems- III Session Chair: Dr. Nader Javani	Heat and Mass Transfer Session Chair: Dr. Hatice Mercan
16:30- 17:30	# 2372) Exergetic performance analysis of fishing vessel refrigeration system A. S. Karakurt, Umit Gunes	# 1982) External Mass Transfer Effects in SCR Reactor for NOx Abatement in Diesel Engines G. Hazal Karadag
	#2051) Comparative Evaluation of Possible Desalination Options For Akkuyu Nuclear Power Plant M.F. Polat, I. Dincer	# 2080) CFD Analysis of a Falling Film Outside Smooth Tubes E. Sezer
	# 2042) Estimating Electricity Consumption of Turkey Using Adaptive Neuro-Fuzzy Inference System A. V. Akkaya	# 2096) Heat and Fluid Flow Analyses of An Impinging Jet on A Cubic Body A. Bolek
	# 2052) Comparative Evaluation of Possible Desalination Options With Steam, Gas Turbine and Combined Based Nuclear Power Plants S. Dincer, I. Dincer	# 2097) Numerical Investigation of Flow over Elliptical Torpedo-Like Geometries with Three-Appendaged and Bare Hulls I. Goktepe, S. Yaymur, M. Ozgoren, F. Kose

Friday, December 23, 2016

Parallel Session 7

Location	Room A	Room B
Time	Renewable Energy Systems-II	Green Energy Systems
	Session Chair : Dr. Ali Pinarbasi	Session Chair : Dr. Birgul Asciglu
09:00 - 10:15	#2175) Pristine Aligned Multi Wall Carbon Nanotubes As Non-Metal Electrocatalysts For Oxygenevolution Reaction Of Water Splitting B. Keskin, A. Ali, D. Akyuz, A. Koca	# 2169) New Trends in Standardization of Automotive Quality Management Systems T. Guerguiev, N. Dimitrova
	# 2069) Integrating of reflectors to improve energy production of hybrid PVT collectors K. Touafek, T. Ismail, A. Abdelkrim, H. Hafsia, B. H. Hanane, B. M. Tahar, M. Ali	#1976) DSP Based BLDC Motor Drive for Electric Vehicles A. Bahadir, Ö. Aydogdu
	#1942) Biomass Energy Systems G. Satilmis	# 2111) Thermodynamic Analysis of Magnetic Cooling Systems in Hybrid Electric Vehicle H. Ganjehsarabi, N. Javani
	# 2191) A combined fuzzy-neuron based FLC and multi-stage ANN design for a directly-coupled PV water pumping system adaptation A. Boutelhig, A. Hadi Arab	# 1926) Modeling and Implementation of An Autonomous Hovercraft T. Anter, S. Abdrabbo, Y. Hossam El-din
	# 2190) Electricity generation in microbial fuel cell systems with Thiobacillus ferrooxidans as the cathode microorganisms I. Ulusoy, A. Dimoglo	# 2122) Energy potential maps of Turkey C. Gokmen, Z. Yumurtaci
10:15 - 10:30	Coffee Break	

Parallel Session 8

Location	Room A	Room B
Time	Energy Systems and Management	Energy Systems and Industry
	Session Chair : Dr. Ali Pinarbasi	Session Chair : Dr. Birgul Asciglu
10:30 - 12:00	# 2098) Optimization of Magnetization Losses for Superconducting Coil Stacks Used in Large Wind Turbines Generators F. İnanir, M. Erdogan, O. Keysan, A. Cicek, A. Ersoy, S. Yildiz	# 2182) An Overview of Demand Response Applications under Smart Grid Concept O. Elma, G. Esref Kiral, U. S. Selamogullari
	# 2030) Integration of Isolator Plates for Improving Shelter Cooling System B. Dokkar	# 1969) Thermodynamic Assessment of an Off-Grid Portable Cooling System for Emergency Regions H. Ozcan, U. Deniz Akyavuz
	# 2198) Finite Element Analysis of Simultaneous Electromagnetic and Heat Transfer Equations in HTS Coil F. Inanir, S. Tunc, M. Erdogan, A. Cicek, O. Keysan, S. Yildiz	# 2036) Modeling and Simulation of Water-Gas Shift in A Heat-Exchange Integrated Microchannel Converter S. Bac, A. Kerim Avci
	# 2124) Numerical Examination of O-Ring Effect on Passive Flow Control for A Torpedo-Like Geometry S. Yagmur, I. Goktepe, M. Ozgoren, F. Kose	# 2220) The Place of Coal Production and Consumption in Turkey's Economy E. Koc Sari, I. Ulusoy
	# 2174) Analysis of LLC Converter with Series-Primary Parallel-Secondary Connection C. Ozcelik, H. Obdan, A. Osman Cinar	# 2392) The study of the effect of double skin façade on the reduction of thermal energy in Office Buildings and the rate of emission in Tabriz R. Norouzi, R. Motalebzade
# 2172) Implementation Of A Two-Phase Interleaved BCM Boost Power Factor Correction A. Osman Cinar, H. Obdan, C. Ozcelik	# 2224) Mechanical Characterization of the Bead Welding Of High-Density Polyethylene (HDPE) B. Azzeddine, M. Mohamed, B. Mohamed	