

## Sunday, September 2, 2012

Time	Location: Sea Island Foyer
13:00-19:00	Registration and Setup for Exhibition

## Monday, September 3, 2012

08:00-09:00	Breakfast (Sea Island Foyer)
08:30-17:30	Registration Desk at Exhibition Area

### Plenary Session 1 Session Chair: A. Ozer Arnas

Time	Location: Sea Island Foyer
09:00-09:30	<b>Opening Speeches</b> <ul style="list-style-type: none"> <li>• Dr. Ibrahim Dincer, Conference Chair</li> <li>• Dr. Saffa B. Riffat, President of WSSET</li> </ul>
09.30-10:15	Keynote Talk: "Regenerative Design: Reframing Building Environmental Performance", <a href="#">R. J. Cole</a>
10:15-11:00	Keynote Talk: "Fuel Cells - When Thermo-fluids Science Meets Electrochemistry", <a href="#">I.S. Zhao</a>

### Refreshment Break & Poster Session #1

11:00-11:30	<p>#6. "Artificial Neural Networks Approach for the Prediction of Thermal Balance of SI Engine Using Ethanol-Gasoline Blends", <a href="#">M. K. D. Kiani</a>, B. Ghobadian, G. Najafi, T. Yusaf</p> <p>#7. "Distributed Energy System Planning for Residential Buildings in Different Climate Zones in China", <a href="#">H. Ren</a>, J. Ge, W. Gao</p> <p>#10. "Full Scale Experimental Studies of a Passive Cooling Roof in Hot Arid Areas", <a href="#">H. Bencheikh</a></p> <p>#15. "Autonomous Solar Energy Supply System with Different Type of Thermo Energy Transformers", <a href="#">O. Buyadgie</a>, D. Buyadgie, O. Drakhnia, A. Chamchine, S. Artemenko</p> <p>#36. "Pitch Angle Effect for the Performance of Horizontal Axis River Current Turbine", <a href="#">A. Rachman</a></p> <p>#39. "Effect of Channel to Shoulder Width Ratio on Performance of Direct Methanol Fuel Cell", <a href="#">S. A. Asaee</a>, M. H. Akbari</p> <p>#41. "Environment Sustainability in Business Education: Future Manager's Perspective", <a href="#">N. Singhal</a>, H. Gupta, R. Verma</p> <p>#47. "Ranking the Select Barriers of Distributed Generation (DG) Industry in Iran's Electricity Market", <a href="#">F. Changizi</a>, O. P. Tee, H. R. Nayebi</p> <p>#59. "Production of Renewable Hydrogen by Aqueous-Phase Reforming of Glycerol over Ni-Cu Catalysts Derived from Hydrotalcite Precursors", P. Tuza, R. L. Manfro, N. F. P. Ribeiro, <a href="#">M. M. V. M. Souza</a></p> <p>#65. "Thermal Performance Evaluation of Phase Change Material Building Boards through CFD and TRNSYS Coupling", <a href="#">B. L. Gowreesunker</a>, S. A. Tassou</p> <p>#68. "Modelling a Solid-Fuel Staged Gasification Process", <a href="#">A. V. Keiko</a>, D. A. Svishchev, A. N. Kozlov, I. G. Donskoy, A. F. Ryzhkov</p> <p>#75. "Impacts of Nuclear Power's Risk Cost on Power Generation Expansion", <a href="#">Q. Zhang</a>, T. Tezuka, K.N. Ishihara, B. McLellan</p> <p>#99. "Pyrolysis Characteristics and Kinetics of Torrefied Wood and Coal Blends from Thermogravimetric Analysis", <a href="#">K. M. Lu</a>, W. H. Chen, W. J. Lee, T. C. Lin</p> <p>#112. "A Model for Estimating Monthly Mean Daily Diffuse Radiation in South Africa", <a href="#">C. C. Enweremadu</a>, A. A. Adeala, Z. Huan</p> <p>#270. "PP Plant Energy Saving Study: Using LS (Low Pressure Steam) Instead of MS (Medium Pressure Steam) in 1<sup>st</sup> Stage Nitrogen Heater", <a href="#">D. C. Akinci</a>, A. Buyukada, S. Senocak</p> <p>#396. "The Process of Delivery - a Case Study Evaluation of Residential Handover Procedures in Sustainable Housing", <a href="#">D. Bailey</a>, J. White</p> <p>#450. "Investigating through the Effects of Renewable Energy Technologies Exploitation on Economic Growth: Case Study of Iran", <a href="#">S. Ariaifar</a>, S. H. Nourbakhsh, H. Kazari</p> <p>#499. "Optimum Thermodynamic and Thermo-economic Design of a Heat Recovery Steam Generator with Supplementary Firing Considering Non-Dimensional Parameters", <a href="#">S. Naemi</a>, S. Behboodi Kalhori, M. Saffar-Avval, Z. Mansoori</p>
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## Monday, September 3, 2012

### Plenary Session 2 Session Chair: Raymond J. Cole

11:30-12:05	Special Talk (#9). "The Search for Energy Sustainability", <u>M. A. Rosen</u>
12:05-12.40	Special Talk (#8). "New Positive and Negative Nanomaterials and Architectures for Supercapacitor Electrodes". <u>D. Mitlin</u>
<b>Lunch Break (Sea Island Foyer) &amp; Poster Session #2</b>	
12:40-14:00	<p>#62. "Feasibility Study and Market Analysis of Solar Water Heater in Rural Areas of Iran", <u>M. R. Azmi</u>, P. Talebizadeh, K. Bijafa</p> <p>#63. "Modeling of the Heliostat Field in Central Receiver Systems for a Given Input Power", P. Talebizadeh, <u>M. R. Azmi</u>, M. A. Mehrabian, M. Abdolzadeh</p> <p>#81. "Energy, Exergy and Thermo-Economic Optimization of Steam Cycle Power Plants", <u>H. Ghaebi</u>, H. Tabarjafar, M.H.Saidi</p> <p>#100. "Syngas Production From Steam Reforming of Coke Oven Gas for Indirect Reduction of Iron Oxides", <u>M. R. Lin</u>, W. H. Chen, A. B. Yu, S. W. Du, T. S. Leu</p> <p>#108. "Numerical and Experimental Analysis of Thermal Comfort of a Passenger Car Compartment", <u>L. Colak</u>, O. Calli, K. Eser</p> <p>#127. "The Impact of the Local Interactions as a Factor of the Sustainability in Iranian Neighborhoods. Case Study of "Tabriz" Residential Areas in Iran", <u>Z. Kafashian</u></p> <p>#135. "Sustainable Environment Recommendations for Transportation in Cyprus", <u>M. Ersalici</u>, H. Altan</p> <p>#142. "Sustainable Building's Assessment tool Development Approach", <u>S. Alyami</u>, Y. Rezgui</p> <p>#144. "The Regional Application of Integrated Environmental Design for Low-Carbon Office Buildings in South-East China within Hot and Humid Climate Zone", <u>M. Sun</u>, B. ford, B. Lau</p> <p>#154. "An Improved Method for Simulating Wind Generation", <u>M.L. Kubik</u>, D.J. Brayshaw, P.J. Coker</p> <p>#166. "Experimental Study on a Solar Assisted Air Source Heat Pump with Different PCM Storages", <u>Y. Fu</u></p> <p>#165. "Study on Stand-Alone Hybrid Solar Pumped Storage Systems", <u>M. Tao</u>, L. Chengzhi, L. Lin, Y. Hongxing</p> <p>#178. "Catalytic Performance of Mg-La Promoted Ni/Al<sub>2</sub>O<sub>3</sub> for Enhanced Tar Conversion to Fuel Gas", S. Pakawan, D. Atong, <u>V. Sricharoenchaikul</u></p> <p>#180. "Study on the GHG Assessment and Management Method for Embodied Energy Reduction During Building's Life Cycle", <u>S. Kim</u>, C. U. Chae</p> <p>#327. "The Energy Performance of Hospital Buildings in Nigeria", <u>S.C. Nwanwa</u>, O.V. Ekechukwu, P.E. Ugwuoke</p> <p>#350. "Investigation on Dual Fuel Operation of a Single Cylinder DI Diesel Engine Fuelled with Karanja Biodiesel &amp; Biogas", <u>B. P. Pattanaik</u>, B. Kumar Nanda, P. Kumar Bose</p> <p>#351. "Investigaion on a Novel Self-Cooled Solid Desiccant Cooling System", <u>T. S. Ge</u>, Y. J. Dai, R. Z. Wang, Y. Li</p> <p>#354. "Effects of Bacterial Activity at the Start Up Period on Optimum Initial pH of Starch Wastewater for Biohydrogen Production", <u>N. Sinbuathong</u>, B. Kanchanakhan, S. Leungprasert, D. Watts</p> <p>#437. "Lipid Production from <i>Chlorella Vulgaris</i> Using Secondary Effluent from Domestic Wastewater Treatment Plant", <u>A. Ebrahimian</u>, H. R. Kariminia, M. Vosoughi</p> <p>#489. "The Effects of Exterior Radiation Characteristics on the Energy Consumption in Whole Year of a Common Residential Building in Shanghai", <u>B. Xu</u>, L. Long, X. Meng, H. Ye</p> <p>#564. "Proposal of a Biomass Based Quadgeneration System for Sustainable Production of Heat, Power and Biofuels", <u>S. Rudra</u>, J. Hoffmann, M. B. Blarke, L. A. Rosendahl</p>

## Monday, September 3, 2012

### Parallel Session 1

Location	Sea Island A	Sea Island B	Sea Island C	Locheed	Bristol
Time	Sustainable Heating and Cooling Achieved by Carbon Dioxide Session Chair: Xin Rong Zhang	Wind Energy Session Chair: Hanzade Acma	Solar Energy I Session Chair: Enzo Zanchini	Energy Policy I Session Chair: Evonne Miller	Energy Savings I Session Chair: Michele Bottarelli
14:00 - 16:00	Special Talk (#368). "Study on Cooling Heat Transfer of Supercritical Carbon Dioxide Applied to Transcritical Carbon Dioxide Heat Pump", <u>C. Dang</u> , E. Hihara	#421. "A Comparison of Vertical and Horizontal Wind Turbines for Offshore Applications", R. Ghodsi, <u>K. Kamrani-Fard</u>	#512. "A Review of Solar Assisted Heat Pump Systems", <u>Y. Fu</u> , J. Zhu, F. Fu, S. B. Riffat	#541. "Model-Based Analysis of Singapore's Energy System", <u>M. Wagner</u> , K. Schönsteiner, T. Hamacher	#292. "Evaluation of Energy Saving from Daylighting in an Educational Building in UK Using RELUX", <u>X. Yu</u> , Y. Su, X. Chen, M. Karagianni
	#85. "Control Strategies to Maximise Heat Recovery from CO <sub>2</sub> Refrigeration Systems in Supermarket Applications in the UK", <u>Y.T. Ge</u> , S.A. Tassou	#415. "An Investigation into a Small Wind Turbine Blade Design", S. Zafar, <u>M. Gadalla</u> , S. M. Hashemi	#252. "Contribution for Solar Mapping in Algeria", <u>A. Kamel</u> , H. A. Amar	#390. "European Foundries and Barriers to Energy Efficiency", <u>A. Trianni</u> , E. Cagno, P. Thollander, S. Backlund	#455. "Energy Savings through Applications of Lean Manufacturing Principles", R. Salim, B. Ali, <u>F. Musharavati</u>
	#102. "Experimental and Theoretical Investigation on Coiled Capillary Tube of a Transcritical Carbon Dioxide Heat Pump Cycle", <u>Y. Chen</u> , X. R. Zhang	#367. "Optimal Siting of Offshore Wind Farms", <u>S. S. Kheirabadi</u> , S. H. Nourbakhsh, H. S. Ganjavi	#141. "Solar Thermal Technologies and Its Application in Industry in China: A Review", <u>Y. Dai</u> , R. Li, R. Wang	#420. "Modeling Demand and Price Changes in Distributed Generation of Electrical Energy Using a System Dynamic Approach: Case of Iran", <u>S. H. Nourbakhsh</u> , M. Fahimi, M. Ameri	#460. "Energy and Economic Savings from Daylighting through Shaded Windows", <u>S. Chirarattananon</u> , D. Matuampunwong, M. F. Budiman
	#94. "A Numerical Investigation on the Convective Heat Transfer and Flow Features of Supercritical Carbon Dioxide", <u>Y. Cao</u>	#446. "Wind Turbine Active Control: Sensor Input System", A. Etrati, E. Assadian, <u>R. B. Bhiladvala</u>	#253. "Investigation on Solar/Thermoelectric Collectors", <u>L. Liu</u> , M. Worall, S. B. Riffat	#391. "The Effect of Business Characteristics on Barriers to Industrial Energy Efficiency: A Field Investigation from Italian Manufacturing SMES", <u>A. Trianni</u> , E. Cagno	#239. "Energy Saving Potentials of Evaporative Cooler Assisted 100% Outdoor Air System in the Heating Season Operation" M. H. Kim, <u>J. W. Jeong</u> , N. S. Ahn, J. H. Lee, S. H. Lim
	#104. "Characteristics of Sustainable Cooling by Cryogenic Dry Ice Sublimation Flow", <u>L. Chen</u> , X. R. Zhang, R. B. Bhiladvala	#485. "Economic-Technical Assessment of Electric Power Generation Using Small Wind Turbines in Household Sector: A Case Study of Iran", A. Hatami, <u>H. Shakouri</u> , B.H. Tabrizi	#293. "An Alternative Energy Concept: A Solar Power Plant with a Short Diffuser", <u>S. Nizetic</u> , N. Ninic	#493. "Investigating the Impact of Implementing "Subsidies Targeting Law" on Optimization of Energy Consumption in Iran and Forecasting the Future Trend", <u>F. Ghelichi</u> , M. Farahani, R. Ghodsi, J. Razmi, F. Ghaderi	#51. "Optimal Dimensioning of Low-Energy District Heating Networks with Operational Planning - Case Study for Existing Buildings", <u>H. Tol</u> , S. Svendsen
		#73. "Development of Condition Monitoring and Control System for Wind Turbines", <u>J. Y. Park</u> , J. K. Lee, K. Y. Oh	#208. "Single Pass Solar Air Heater without Absorber", <u>R. Nowzari</u> , L. B. Y. Aldabbagh	#362. "The Harmony of ICT with the Power Smart Grid in Iran", <u>A. G. Zadeh</u> , R. Ghodsi	#409. "Energy Saving Potential of Membrane Heat Recovery Ventilator in China: Performance Simulation and Control Optimization", <u>R. Cheng</u> , Z. Wu, X. Wang, Y. Zhang
16:00-16:40	<b>Refreshment Break &amp; Poster Session #3</b>				
	#111. "Numerical Simulation of Heat Loss by a DSG Solar Collector", <u>G. Petrone</u> , L. Cammarata, G. Cammarata #119. "Energy Efficiency in a Wooden House of Traiguén, Chile", <u>W. Bustamante</u> , R.Cepeda, P. Martínez, A. Sierra, R. Behrens, M. Brahm, G. Escobar #153. "Biofuel as an Alternative and Clean Energy Option for Growing Energy Demand in Pakistan", <u>R. H. Leghari</u> , M. U. Baloch, A. Khidrani #157. "Agneyodgara: Safe Sustainable Green Energy for All", <u>R. Arya</u> #162. "Sustainable Pattern in Vernacular Architecture of Villages in Cold Dry Climate of Iran Case Study of Ansaroud Village", <u>S. G. Shaghaghi</u> , A. Ansaroudi #163. "3E (Energy, Exergy and Environment) Analysis of a Novel Tri-generation Energy", <u>N. Enadi</u> , R. H. Khoshkhou, K. Roshandel #176. "Techno-economic assessment of solar photovoltaic technologies utilized in building sectors in China", <u>F. Fu</u> , Y. Fu #186. "Investigation of Variation of Exergy Costs of Heat and Electricity Using Exergoeconomic Analysis", <u>A. Bagdanavicius</u> , N. Jenkins #187. "Effect of Soil Activation in Wheat Cultivation for Sustainable Environment", <u>E.C. Ablaza</u> , K. Ishikawa #204. "Renewable Hydrogen Production by the Steam Reforming of a Blend of Common Bio-based Industrial Wastes over Ni/CeZrMO <sub>x</sub> Catalysts", P. Sengupta, <u>H. Ibrahim</u> , A. Zahid, A. Khan, R. Idem #207. "An Innovative Low-Emissivity Insulation to Improve the Building Energy Efficiency", <u>Y. C. Kwon</u> , D. S. Seo #238. "Establishment of the Integrated Design and Identification of Passive Details of Zero-Carbon Green Home", <u>S. E. Shin</u> , S. A. Kim, Y. S. Yoon, D. W. Cho #247. "Superconducting Circuit Breaker for Energy-Saving Power Networks", V. V. Konopelko, <u>L. P. Bulat</u> #267. "Influence of Convective Heat Transfer Indoor on the Energy Demand of Buildings", <u>A. R. Casado</u> , F. J. S. De La Flor, E. Á. R. Jara, I. R. Maestre, A. M. Rubio #379. "Low Energy Office Building Design in Hot-Dry Region of Yazd City in Iran", <u>A. Azami</u> #386. "Improvement of the Wood Biomass Heating System Control", <u>S. Prodanović</u> , S. Vasković #392. "Neutronic Analysis of Candu Reactors Using Monte Carlo Code (MCNP)", <u>A. Acir</u> #444. "The Significance of Dimensional Analysis and Similarities Concepts to the Development of Correlations in Engineering Systems", <u>A. N. Peleowo</u> #452. "Towards an Integrated Value Optimizing Ecosystem in Natural Gas Liquids Operations and Related Facilities", <u>F. Musharavati</u>				

## Monday, September 3, 2012

### Parallel Session 2

Location	Sea Island A	Sea Island B	Sea Island C	Locheed	Bristol
Time	Energy Sustainability Session Chair: Sumer Sahin	Hydrogen Production I Session Chair: L. Berrin Erbay	Refrigeration Systems Session Chair: Mustafa Gul	Biomass Energy I Session Chair: Tianshou Zhao	HVAC Systems & Design Session Chair: Seong Su Kim
16:40-18:40	#25. "EU Marie Curie International Research Exchange Scheme-R&D in Sustainable Building Energy Systems and Retrofitting", <u>S. B. Riffat</u>	#458. "Hydrogen Production by Reforming Clathrate Hydrate Using In-Liquid Plasma Method", <u>A. E. E. Putra</u> , S. Nomura, S. Mukasa, H. Toyota	#673. "Experimental and Theoretical Investigation on Coiled Capillary Tube of a Transcritical Carbon Dioxide Heat Pump Cycle", Y. Chen, <u>X. R. Zhang</u> , P. Du	#281. "Biomass Conservation and Indoor Air Pollution Mitigation through Efficient Cook Stoves in Pakistan", <u>K. Harijan</u> , M. A. Uqaili	#405. "Theoretical and Experimental Study of a Novel Film Evaporation Cooling System", <u>H. Golchoobian</u> , M. H. Taheri, M. Amidpour, O. Pourali
	#57. "Towards Sustainability: Energy Efficiency in Business", O. Kartal, <u>A. G. Öncel</u>	#624. "Photofermentative Hydrogen Production by Purple Non Sulfur Bacteria from Sugar Cane Bagasse", <u>S. S. Mirza</u> , J. I. Qazi, Shulin Chen	#633. "Performance Assessment of a Novel Integrated Multi-Generation Energy System Based on an Ejector Refrigeration Cycle and a PEM Electrolyser", <u>P. Ahmadi</u> , I. Dincer, M. A. Rosen	#137. "Effects of Pyrolysis Conditions on Structural Ingredients and Functional Groups of Hybrid Poplar", <u>H. Haykiri-Acma</u> , S. Yaman	#216. "A Study on the Effect of Relative Humidity to the Filtration Efficiency in a HVAC System", <u>M. Y. Liu</u> , Y. C. Ahn
	#519. "Interface Between Appropriate Technology and Sustainable Energy Policy in Vulnerable Societies", <u>L. Garniati</u> , A. Owen, J. Kruijssen, Y. Ishadamy, I. Wibisono	#637. "Mass Transfer and Bubble Flow Dynamics in Aqueous Solutions for Hydrogen Production Cycles", <u>O. Jianu</u> , M. A. Rosen, G. F. Naterer, Z. Wang	#646. "Simulation Investigation on Low Grade Energy Powered Two-Stage Desiccant Wheel Cooling System", <u>T. S. Ge</u> , Y. J. Dai, Y. Li, R. Z. Wang	#438. "Microwave Enhanced Pyrolysis of Gumwood", <u>K. Shi</u> , T. Wu, J. Yan, H. Zhao, P. Hall, E. Lester	#188. "Application of Heat Pipe System in Data Center Cooling", X. Qian, <u>Z. Li</u> , H. Tian
	#501. "Impact of Sustainable Energy Technology to the Development of Small Business in Rural Bangladesh", <u>E. Ali</u>	#276. "Sustainable Hydrogen Production from Underground Coal Gasification in Western Canada with Carbon Capture and Sequestration for the Bitumen Upgrading", B. Olateju, <u>A. Kumar</u>	#167. "Performance Analysis of Ejector Refrigeration System with Alternate Refrigerants", <u>B. Mukund</u> , G. Kannan, S. Mariappan	#462. "Cattle Dung Biogas as a Renewable Energy Source for Rural Laboratories in Nigeria", <u>I. K. Adegun</u> , S. S. Yaru	#569. "Towards a Future of District Heating Systems with Low-Temperature Operation together with Non-Fossil Fuel Heat Sources", <u>H. I. Tol</u> , I. Dincer, S. Svendsen
	#534. "CO <sub>2</sub> Chemical Conversion to Useful Products: Review of the Latest Advances Toward Sustainability", <u>A. T. Najafabadi</u>	#686. "Thermodynamic Analysis of a Copper-Chlorine (Cu-Cl) Based Integrated System for Hydrogen Production", <u>A. Ozbilin</u> , I. Dincer, M. A. Rosen	#318. "TEWI Analysis of a Hybrid Ejector CO <sub>2</sub> Refrigerated Transport System", <u>M. Worall</u> , S. Omer, S. B. Riffat	#554. "Process Optimization of an Integrated Hydrothermal Liquefaction and Biogas Plant for Sustainable Bioenergy Production", <u>J. Hoffmann</u> , S. Rudra, S. S. Toor, J. B. Holm-Nielsen, L. A. Rosendahl	#602. "Experimental Study on a New Heat Driven Sensible and Latent Separately Handled Air Conditioning System", <u>Y. Yin</u> , S. Li, X. Zhang
#16. "Path to Commercialization Steeper Energy's Hydrofaction™ Oil to Drop-in Fuels", S. B. Iversen, <u>P. E. Toms</u>	#662. "Assessment of Photochemical Hydrogen Production at Varying Light Intensities for Constant Pressure and Constant Volume Cases", <u>C. Zamfirescu</u> , I. Dincer, G.F. Naterer, R. Bamica	#312. "Simulation of Double Effect Absorption Refrigeration System", I. Atilgan, <u>C. Aygun</u>	#182. "Doubling the Potential of Renewables by coupling Biomass Processing with Solid Oxide Electrolysis", <u>J. B. Hansen</u>	#171. "Winter Performance of a Humidification Dehumidification Desalination System in Northern Cyprus", <u>R. Enayatollahi</u> , U. Atikol, R. Kraft	
19:30-21:30	Welcoming Reception (Sea Island AB)				

## Tuesday, September 4, 2012

### Breakfast (Sea Island Foyer) & Poster Session #4

08:00-09:00

- #80. "Exergy Analysis of an Alternative Zero Emission Cogeneration Cycle", R. Karaali, I. T. Öztürk
- #87. "A Supercritical CO<sub>2</sub>-Based Water Solar Heater", X. D. Niu, H. Yamaguchi, Y. Iwamoto
- #107. "Thermal Energy Storage Technologies with Thermochemical and Phase Change Materials: A State-of-the-Art Review", Y. Ding, S. B. Riffat, F. Agyenim
- #118. "Ventilation and Architectural Design Strategies for Cooling Office Buildings in Different Climates of Chile", W. B. Gómez, F. E. Pino, S. V. Araya, F. S. De La Flor
- #160. "Valuation of a Therapeutic Food: Essential Oil Anacyclus Clavatus", N. T. Kordjani, H. Aliboudhar
- #161. "Analysis of the Fabric of Hawramane Takht Village from Natural and Climatic Point of View", S. G. Shaghghi, S. Sharafi, A. Panahandeh
- #168. "Modeling of a High Concentration Photovoltaic/Thermal System", A. A. Alian, P. Talebizadeh, M. K. Assadi, M. R. Azmi
- #198. "Ni-La-Mg/Al<sub>2</sub>O<sub>3</sub> Enhanced Co-Gasification of Mixed Black Liquor and Pulp Sludge", V. Sricharoenchaikul, C. Sirinawin, S. Pakawan, D. Atong
- #205. "Sustainable Hydrogen Production by the Catalytic Autothermal Reforming of Glycerol over Ni-based Catalysts", F. Sabri, H. Ibrahim, A. Khan, R. Iden
- #218. "Advantages and Feasibility of Freight Pipelines", D. Ulusarslan
- #222. "Relationship Between Life Cycle Costing and Life Cycle Assessment Methods", M. Pilehvaran
- #236. "A Modelling and Optimization Framework for a Series of Fuel Cell Hybrid Systems", Y. Zhao, H. Chen, J. Chen
- #280. "Energy and Exergy Analysis of an Air Conditioning System Using the Mixture of Outdoor and Return Air", A. Kilicarslan, I. Kurtbas
- #283. "Performance Evaluation of a Diesel Engine Fueled with Waste Cooking Oil Methyl Ester", P. Shaikh, P. Jikar
- #299. "A Case of Preservation of the Modern and Regeneration of Old Downtown Through Civic Participatory Remodeling Procedure: Experimentation in Gwangju, Korea", J. Park, H. Lee, U. Yoo
- #306. "Atmosphere Water Vapour as a Factor of Sustainable Development of Uzbekistan Arid Zones", S. I. Nikolaeva, S. S. Mutalov, Y. V. Petrov
- #403. "Preliminary Evaluation of Some Oleaginous Seeds as Sources for Biofuel Production", A. M. Mohaqir, R. Kamga, C. Kapseu, S. Sabir
- #428. "Energy and Climate Change", M. Thapa
- #490. "Replacement of CNG in Pakistan with Hybridized Solar, Biogas and Fuel Cell Based Hydrogen Filling Stations", B. Asad, S. K. Imdad, K. M. Hasan
- #492. "Correlating the Power-Conversion of a PV Panel to the Solar Irradiance Obtained from Meteorom", O. Asowata, J. Swart, C. Pienaar
- #495. "Application of Small-Scale Photovoltaic and Wind Power Systems in Microgrids in Brazil: a Study of the Current Scenario, Opportunities and Technology Trends", T. N. Leites, F. Tumelero, D. Bittencourt, C. Q. Pica
- #497. "Energy Analysis of Single Stage and Double Stage Absorption Heat Transformers Integrated in Water Purification Systems", K. Parham, M. Yari, U. Atikol
- #500. "Hourly Energy Analysis of a Stratified Thermocline TES System Coupled with a CHP-DH Network in Iran", S.S. M. Tehrani, S. B. Kalhori, M. S. Avval, Z. Mansoori
- #566. "Effects of Radiative Transfer Modeling on Temperature Distribution in the Planar Type Solid Oxide Fuel Cell", M. Hocine, B. Djamel, B. M. Hocine, B. Hamza, Z. Mostefa
- #567. "Applying the Genetic Algorithms of Sorting the Elitist Non-Deccessive Solutions in the Case Study 'Sustainable Energy Technologies' ", K. Teimoori
- #626. "Experimental Study on the Performance of a Standalone Solar PV Powered Air Conditioner", Y. Li, G.Z. Lv, R.Z. Wang, Y.J. Dai

## Tuesday, September 4, 2012

08:30-17:30 Registration Desk at Exhibition Area

### Parallel Session 3

Location	Sea Island A	Sea Island B	Sea Island C	Locheed	Bristol
Time	Solar Energy II Session Chair: Amit Kumar	Exergy Analysis Session Chair: Prasanta Deb	Fuel Cells I Session Chair: Mohamed F. Yassin	Sustainable Environment I Session Chair: Fei Wang	Artificial Intelligence Session Chair: Jau-Jang Lu
09:00-10:40	#175. "Development of a Standardized Method of Testing Solar Light Simulator", <u>M. Shatat</u> , S. B. Riffat, F. Agyenim	#427. "Energy and Exergy Analyses of an Integrated System for Utilization of Excess Power from Thermal Power Plant", <u>T. A. H. Ratlamwala</u> , B. V. Reddy, I. Dincer	#339. "State of the Art Review: Fuel Cell Technologies in the Domestic Built Environment", <u>T. Elmer</u> , S. B. Riffat	#484. "Evaluation of the Impact of Oil Spillage on Umuechem Community and Their Productivity Implications", <u>G. O. Osueke</u> , S. T. A. Okolie, N. C. Nwogu	#575. "Genetic Algorithm-Based Platform Optimization for Floating Offshore Wind Turbines", <u>M. Hall</u> , B. Buckham, C. Crawford
	#258. "The Design and Performance Analysis of a Solar Collecting System Based on Reflecting, Refracting and Reconcetrating Technics", H. Zheng, <u>J. Dai</u>	#544. "Exergy Analysis and Performances Simulation of an Improved Efficiency Refrigeration Cycle Integrating a Multiphase Ejector", <u>D. Boudieb</u> , K. Mohammedi, S. Bouarab, A. Talamali	#614. "Investigation on Solid Oxide Fuel Cells Electric Performance", <u>S. M. Said</u> , M. Hocine	#30. "Scenario Analysis for Optimal Allocation of China's Electricity Production System", H. Mu, <u>H. Li</u> , S. Gui, M. Li	#220. "Evaluation of "Viability" of Sites for Wind Energy Harnessing-A Fuzzy Logic Rule Based Multi Criteria Evaluation Model", <u>M. Srinivas</u> , J. Puskar, B. B. Arjun
	#29. "Experimental and Theoretical Investigations of Performance of Psychrometric Humidification and Dehumidification Solar Water Desalination System Coupled with an Evacuated Tube Solar Collector", <u>M. Shatat</u> , S. B. Riffat, Y. Yuan, A. Mayere	#329. "Chemical Exergy Analysis of a Natural Gas Combustion Chamber and Its Effects on Exergy Efficiency", <u>H. M. Sahin</u> , A. Ege, S. Iskender	#259. "Feasibility of Fuel Cells in Commercial Aircraft: Implications of Installation and Refueling", <u>F. Girard</u> , M. Hernandez, M. Rossetto, J. Breit, J. P. Belières	#596. "The Study of Radiation Education Indicators in K-9 Sustainable Environmental Education", <u>C. K. Ku</u> , C. T. Wu	#496. "Prediction of Monthly Average Daily Global Solar Radiation and Average Temperature of Next Month Using ANN Based on Previous Months' Data of Some Cities in Turkey", M. Karabatak, <u>A. Sempinar</u>
	#266. "The Design and Experimental Research on a Solar Collecting System of Funnel-Shaped Congregating and Targetable Light-Transmitting", H. Zheng, <u>J. Dai</u> , T. Tao, Y. Su	#577. "Energy and Exergy Analyses of Active Magnetic Refrigeration System", <u>H. Ganjehsarabi</u> -I. Dincer, A. Gungor	#134. "Multiphase Mixture Modelling and Experimentation of the Flowing Electrolyte-Direct Methanol Fuel Cell", <u>D. Ouellette</u> , C. O. Colpan, E. Matida, C. A. Cruickshank	#498. "Sustainable Exploration of Oil and Gas in Niger Delta Region of Nigeria", <u>O. Inomiesa</u>	#659. "A New Strategy for Accurately Predicting I-V Electrical Characteristics of PV Modules Using a Nonlinear Five-Parameter Five-Point Model", S. B. Dongue, <u>D. Njomo</u>
	#561. "Efficiency of Solar Applications of Solar Energy as a Sustainable Energy Resource in Saudi Arabia", <u>A. H. Monawar</u>	#632. "Exergy Analysis and Optimization of an Air-to-Water Heat Pump Using a Genetic Algorithm", <u>P. Ahmadi</u> , I. Dincer, M. A. Rosen	#129. "Modelling of a Porous Flowing Electrolyte Layer in a Flowing Electrolyte-Direct Methanol Fuel Cell", <u>E. Duivesteyn</u> , C. A. Cruickshank, E. Matida	#514. "Achieving Sustainable Environment and Health in High-Rise Office Buildings", <u>Z. Duan</u> , D. Sun	#431. "Estimation of Incomplete Meteorological and Solar Radiation Data in Turkey Using Artificial Neural Network", <u>A. Sempinar</u> , M. Karabatak
10:40-11:00	<b>Refreshment Break &amp; Poster Session #5</b>				
	#196. "Water Pinch Analysis with Mathematical Programming to Reduce the Cost of Wastewater Treatment Plant in Upstream Industry", <u>Z. Jandaghian</u>				
	#201. "Analyses of Shawadoun Sustainable Ventilation Approaching Energy Efficiency in Hot&Humid Climate Architecture of Iran-Case Study: Shushtar and Dezful Cities", <u>A. Azami</u> , S. Ghanbari, N. Akbarain				
	#212. "LCI Methodologies in the Built Environment-towards a Uniform Method", <u>D. Wolff</u> , A. Duffy, G. Hammond				
	#221. "Cooling of Water Using Solar Energy on a Bicycle", <u>A. Phadnis</u>				
	#227. "The Application of Renewable Energy Initiatives to Reduce Carbon by Raising Energy and Revenue While Meeting UK Government Sustainable Energy Targets in the UK", <u>D.W. Adamson</u> , J. Francis				
	#230. "Thermal Performance of an Evaporative 3 Effects Distiller for Solar Desalination System", <u>H. Y. Kwak</u> , H. J. Joo				
	#279. "Thermoeconomic Analysis of a CO <sub>2</sub> Recovery Plant", <u>D. Nielsen</u>				
	#317. "Development of Compact Type Solar Thermal/Ground Coupled Heat Pump Hybrid System for Heating and Cooling of Residential House", <u>N. C. Baek</u> , S. Y. Jeong, J. H. Yoon, U. C. Shin, E. S. Yoon				
	#323. "Experimental Investigation on an Ejector Cooling System", <u>X. Chen</u> , M. Worall, S. B. Riffat				
	#335. "An Analysis of Design Standards and Influence Factors of Heating and Cooling Energy Needs for Different-Sized Low-Energy Office Buildings in South Korea", <u>J. Y. Heo</u> , K. Hyung				
	#589. "Contaminants in Product Gas from Oxygen-Steam Gasification of Woody Biomass", <u>T. Watanabe</u> , T. Takahashi, T. Yamagishi, T. Matsui, K. Kawamoto				
	#506. "Application of Technology Development Envelope Methodology: Transition of Transportation Energy Systems", <u>I. K. Ersolmaz</u> , A. M. Yildirim				
#507. "Drivers for a Sustainable Future: a Review of Motor Fuels & Automotive Technologies", <u>I. K. Ersolmaz</u> , A. M. Yildirim					
#522. "Measuring the Role of Construction Sector in Decreasing Greenhouse Emission and Delivering Surplus Green Advantage", <u>U. A. Umar</u> , M.F.Khamidi					

## Tuesday, September 4, 2012

### Parallel Session 4

Location	Sea Island A	Sea Island B	Sea Island C	Locheed	Bristol
Time	Energy Storage Session Chair: David Mitlin	Sustainable Buildings I Session Chair: Saffa B. Riffat	Solar Energy III Session Chair: H. Mehmet Sahin	Low Energy Buildings Session Chair: Khalid Alammr	Fuel Cells II Session Chair: Farayi Musharavati
11:00-12:40	#215. "Thermochemical Energy Storage Systems: Design Assessment and Parametric Study of Effects of Charging Temperature", <u>A. H. Abedin</u> , M. A. Rosen	#663. "Developing the Low-Carbon Modular Flat Pack Buildings: Full Scale Testing", <u>M. Khalifa</u> , B. Mempou, S. B. Riffat, O. Siddig	#342. "Performance Analysis of Solar Powered Humidification Dehumidification Desalination System", <u>A. Mayere</u> , S. B. Riffat	#463. "Design of a Nearly Zero Energy One-Family House in North-Centre Italy", <u>E. Zanchini</u> , S. Lazzari	#209. "Experimental Analysis of a Small-Scale Flowing Electrolyte-Direct Methanol Fuel Cell Stack", <u>Y. Kablou</u> , C. A. Cruickshank, E. Matida, F. Hamdullahpur
	#422. "Effect of Thermal Energy Storage in District Energy Systems", <u>B. Rezaie</u> , B. V. Reddy, M. A. Rosen	#28. "Lifecycle Energy Analysis of a Typical Office Building Block in Mexico-Warm and Humid Climate", <u>A. M. S. Kashkooli</u> , G. A. Vargas, H. Altan	#284. "Effect of External Reflector Inclination on Solar Still Coupled with an Induced Atmospheric Air for Remote Areas in Saudi Arabia", <u>N. A. S. Elminshawy</u>	#128. "Investigation of a Combined Air Source Heat Pump and Solar Thermal Heating System within a Low Energy Research Home", <u>J. White</u> , M. Gillott, R. Gough	#359. "Investigation of the Dynamic Behavior of Water Transport at the Bend of a Serpentine Cathode Channel of a Polymer Electrolyte Fuel Cell", <u>M. Hossain</u>
	#680. "Performance Assessment of Latent Heat Thermal Energy Storage in Hybrid Electric Vehicle Thermal Management Systems", <u>N. Javani</u> , I. Dincer, G. F. Naterer	#424. "Energy Interventions in Non-Domestic Buildings: Energy Saving, Occupants' Satisfaction, Well-Being and Productivity", <u>M. M. Agha-Hosseini</u> , A.A. Elmualim, A. Rowell, J. A. Ellis, M. J. Williams	#642. "Downwelling Surface and TOA Solar Radiation Fluxes in Cameroon as Derived from a Parameterized Radiative Transfer Model", L. A. Nguimdo, <u>D. Njomo</u>	#120. "Investigations of suitable insulation materials and dimensions for nearly zero energy buildings", <u>S. Hansen</u>	#272. "Residential Peak Electricity Demand Shaving Using Battery Energy Storage: Modeling and Experiments", <u>J. Leadbetter</u> , L. Swan
	#225. "Domestic Solar Earth Charging: Comparison of Low Temperature and High Temperature Collectors for Underground Thermal Energy Storage, to Augment Ground Source Heat Pump", <u>D. N. C. Barch</u> , S. B. Riffat	#24. "A Semi-Quantitative Methodology of Building Life Cycle Assessment (BLCA): Demonstrated Through a Case Study in Sheffield, UK", <u>A. M. S. Kashkooli</u> , H. Altan	#658. "A Preliminary Simulation and Experimental Study on the Solid Parabolic Compound Concentrator (CPC) for the Combined PV and Daylighting Application", <u>Y. Su</u> , X. Yu, H. Zheng, S. B. Riffat	#322. "The Application of Phase Change Materials to Improve the Climate Resilience of a Low-Energy Prototype House", L. Rodrigues, <u>D. Tetlow</u> , M. Gillott, V. Sougkakis	#668. "Thermodynamic Analysis of a Cycle Integrating a Solid-Oxide Fuel Cell and Micro Gas Turbine with Biomass Gasification", <u>M. Hosseini</u> , M. A. Rosen, I. Dincer
	#615. "A Comparison of Methods for Sizing Energy Storage Devices in Renewable Energy Systems", <u>T. Bailey</u> , A. Rowe, P. Wild	#194. "Integrated System Concept for Energy Efficient Smart Buildings and Cities", <u>H. U. Gökçe</u> , K. U. Gökçe	#240. "Concentrated Solar Power: A Vision for Rajasthan", <u>P. Jaglan</u> , N. Aggarwal, D. Khanduja	#587. "The Effect of Low Temperature Heating Systems on Convective Heat Transfer Coefficient in Real Size Rooms", <u>O. Acikgoz</u> , O. Kincay, T. H. Karakoc	#687. "Electrochemical Impedance Spectroscopy Study of a Flowing Electrolyte-Direct Methanol Fuel Cell", <u>D. Chan</u> , D. Ouellette, E. Matida, C.
		#195. "Interoperable ICT Platform for Energy Efficient Smart Buildings", <u>H. U. Gökçe</u> , K. U. Gökçe			#103. "Combined Photovoltaic Solar Cell - Fuel Cell System: Powering a Dormitory Building", <u>F. G. Uctug</u> , B. Akyurek
<b>Lunch Break &amp; Poster Session #6</b>					
12:40-14:00	#12. "Study on Phase Change Heat Transfer of Phase Change Capsules in Building Envelopes", <u>X. Dai</u> , D. Wang, Z. Chen				
	#35. "The Potential of Renewable Energy Resource in Supporting the Development in Southeast Sulawesi", <u>R. Balaka</u> , A. Rachman, A. Johar				
	#244. "Numerical Study of Flow and Heat Transfer Characteristic of LNG in Vaporizer", <u>H. Afrianto</u> , J. S. Jeon, T. S. Utomo, H.M. Jeong, H.S. Chung				
	#245. "The Experimental Study of Nano-Fluid Convective Heat Transfer through Circular Tube", <u>Y. Eom</u> , K. Wusiman, H. S. Chung, H. Jeong				
	#249. "The Insulation-Oriented Model of PV/T Module Using Matlab/Simulink", <u>H. Zhou</u> , Y. Su				
	#255. "Efficient Utilization of Light Energy for Algal Cultivation in Photobioreactors", A. Koushik Pegallapati, <u>N. Nirmalakhandan</u>				
	#256. "State Estimation of a Lithium-Ion Battery Using Electrochemical Model-Based Particle Filter", <u>M. F. Samadi</u> , M. Saif				
	#257. "Sustainable Algal Cultivation in Photobioreactors", <u>Y. Arudchelvam</u> , N. Nirmalakhandan				
	#302. "Charge-Discharge Characteristics and Size Cost Analysis of Storage Elements for HEVs", <u>G. Cevik</u> , M. F. Akşit				
	#328. "Platinum Loading Effect for Ethanol Electrooxidation to Energy Conversion", <u>P. S. Correa</u> , E. L. da Silva, S. C. de Sá, F. Oliveira, R. F. da Silva, C. Radtke, C. F. Malfatti				
#338. "Solar Powered Thermoacoustic Engine with Light Funnel Concentrator", <u>H. Kang</u> , F. Jiang, L. Xing, H. Zheng					
#356. "Sustainable Development and Built Heritage: Post-Catastrophe Reconstruction with Reclaimed Materials", <u>R. D'Alençon</u> , M. Delso, C. Gómez					
#363. "Annual Cost Assessment of Bioethanol Consumption as an Alternative Fuel and Ethanol Blended Fuel", <u>H. Anahide</u> , S. H. Nourbakhsh, H. Shakouri					
#364. "Evaluation of Optimum Share of Bioethanol as an Alternative Fuel in Passenger Transportation Sector", <u>H. Anahide</u> , S. H. Nourbakhsh, H. Shakouri					
#404. "In-Situ Evaluation on Photovoltaic Characteristics of Each Subcell in A Multijunction Solar Cell", C. Lo, W. C. Yang, S. W. Tan, C. Y. Wei, <u>W. S. Lour</u>					
#414. "Study on Biodiesel Fuel Production from Waste Cooking Oil by Immobilized Strains", <u>L. Zhou</u> , W. Chen					
#434. "Gas-Tight and Crystalline CGO Electrolytes for SOFC Deposited by Spray Pyrolysis", <u>C. M. Halmenschlager</u> , R. Neagu, C. De Fraga Malfatti, C. P. Bergmann					
#591. "Absorption Characteristics of R134a into DMAC and DMF for a Falling Film Horizontal Tube Absorber", <u>K. K. Yadu</u> , S. Tiwari, M. P. Maiya					
#594. "Single-Objective Optimization of Micro-CCHP System with Aco", <u>F. Tu</u> , J. Wu					
#595. "ANFIS for Predicting Compartment Load According to the Number and the Stay of Customers", <u>F. Tu</u> , J. Wu					
#601. "Photocatalytic Solarization System for Microorganism Contaminated Water Treatment", <u>M. Nararom</u> , S. Thepa, R. Songprakorp, J. Kongkiattikajorn					
#606. "Multiobjective Optimization of a Cogeneration Plant System Using Evolutionary Algorithm", <u>E. K. Nejad</u> , H. Choopan					
#653. "Determination of Unit Exergy Cost of Electricity Produced by a Power Plant through SPECO Thermo-economic Analysis Method", <u>C. Uysal</u> , H. Kurt					

## Tuesday, September 4, 2012

### Parallel Session 5

Location	Sea Island A	Sea Island B	Sea Island C	Locheed	Bristol
Time	Heat Transfer Applications I Session Chair: Lizhi Zhang	Geothermal Energy Session Chair: Viboon Sricharoenchaikul	Optimization Session Chair: Rustom Bhiladvala	Clean Carbon Technologies Session Chair: Hongxing Yang	Computational Fluid Dynamics Session Chair: Pavel Somavat
14:00-16:00	Special Talk (#13). "Heat and Mass Transfer in Membrane Bundles for Membrane-based Liquid Desiccant Air Dehumidification", <u>L. Zhang</u> , S. Huang	#570. "Environmentally Friendly Systems: Earth Heat Pump System with Vertical Pipes for Heat Extraction for Domestic Heating and Cooling", <u>A. Omer</u> , S. Omer, S. B. Riffat	#219. "Mixed-Integer Optimization of Material and Energy Integrations in an Eco-Park Network", <u>I. Kantor</u> , A. Elkamel, M. W. Fowler	#373. "Refrigerator Coupling to a Water-Heater and Heating Floor to Save Energy and to Reduce Carbon Emissions", <u>R. Ben Slama</u>	#344. "CFD Analysis of a Shell and Tube Heat Exchanger Linking a Supercritical Water-Cooled Nuclear Reactor and a Copper-Chlorine Hydrogen Production Cycle", <u>A. H. Abedin</u> , M. Aydin, M. A. Rosen
	#139. "Heat and Mass Transfer of Composite Desiccant Wheels Based on Different Substrate Materials", <u>H. Li</u> , Y.J. Dai, T.S. Ge, R.Z. Wang	#627. "An Integrated Monitoring Framework for Geothermal Heating Systems", <u>X. Li</u> , T. Sharmin, H. U. Gökçe, M. Gul, M. Al-Hussein, D. Morrow	#376. "Optimization of Wind Breakers Length", J. Khaleghinia, H. Golchoobian, <u>F. Kimiaghaham</u> , B. Ghorbani, M. Amidpour	#124. "Smart Grids: A New Incentive for SME Carbon Reduction", <u>J. M. Rawlings</u> , P. J. Coker, A. J. Doak, B. Burfoot	#542. "CPL Evaporator Experimental Results Compared with the Predictions of a 3D CFD Model", N. A. Avgerinos, D. P. Margaris, D. T. Tsahalis
	#572. "Knowhow of TH-MSR Heat Exchange System", <u>L. B. Erbay</u>	#40. "Characterization of Heat Transport Processes in Geothermal Systems", <u>H. Huber</u> , U. Arslan	#226. "Optimization of a Self-Regulating Smart Distribution Grid", <u>A. Younis</u> , T. Williams, D. Wang, Z. Dong, C. Crawford, N. Djilali	#27. "Measuring Lifecycle Carbon Footprint of a Case Study in Mexico", <u>A. M. S. Kashkooli</u> , R. M. Eufrazio, H. Altan	#89. "Analysis of Anaerobic Digesters by Using CFD Technology", <u>P. Deb</u>
	#644. "Long-Term Study of Thermal Interaction of Vertical Ground Heat Exchangers with Seasonal Heat Flux Variation", S. Koohi, <u>M. A. Rosen</u>	#56. "The Prospects for Geothermal Application in Algeria", <u>B. Mébrouk</u>	#636. "Optimization of Lipid Production and Minimized Procedure for Extraction of Lipids from Microalgae", <u>G. A. Gedilu</u> , B. J. Solomon	#156. "Developing in Carbon Inventory Technology for the Hotel Industry", <u>S. H. Liao</u> , H. S. Lin, P. C. Lin	#670. "3D CAD and CFD Modeling for Safety Analysis of University Malaya (UM) Portable Hydrogen Refueling Laboratory", M. Dahari, <u>C.C. Tan</u>
	#550. "Analysis of Turbulence of Flow Field and Heat Transfer near a Single Rotating Disk via Numerical Simulation", <u>M. Shanboghazani</u> , H. Barghlame, V. Heidarpour, M. A. Rosen	#183. "Soil Liquefaction Analysis Based on Geotechnical Exploration and in Situ Test Data in the Tabriz Metro Line 2", <u>M. Y. Fard</u> , M. Babazadeh, P. Yousefzadeh	#655. "Optimization of a PV/Wind/Tidal Model for Housing Electrification Case Study: Mahshahr, Iran", <u>N. Fallahi</u> , S. H. Nourbakhsh, H. Shakouri, I. V. Farahani	#639. "Understanding Public Perceptions of Carbon Sequestration in Australia: Knowledge, Trust, Engagement and 'Nimbyism'", <u>E. Miller</u> , L. Buys	#671. "3D CAD and CFD Modeling for Safety Analysis of Metal Hydride Based Hydrogen Refueling Compressor", M. Dahari, <u>Y.L. Loh</u>
		#158. "Comparative Performance Assessment of Geothermal-Based Hydrogen Production Methods", <u>T. A. H. Ratlamwala</u> , I. Dincer	#121. "Development and Optimization of Re-Insulating Panels of High Performance Concrete", <u>S. Hansen</u>	#314. "Maintainability of Low Carbon Buildings", <u>O. L. Frank</u> , S. B. Riffat, S. A. Omer	#672. "3D CAD and CFD Modeling for Safety Analysis of Metal Hydride Based Hydrogen Storage Canister", M. Dahari, <u>C.K. Kok</u>
<b>Refreshment Break &amp; Poster Session #7</b>					
16:00-16:40	#43. "Development of a Nuclear Reactor Design and Simulation Software Based on RELAP5 Code", <u>A. Abrishami</u> , M. Mansouri				
	#45. "A Fuzzy Linear Programming Model for Optimal Allocation of Energy Resources in Iran (Regarding Subsidies Lifting)", <u>A. Kazemi</u> , H. G. Shakouri, M. R. Mehregan				
	#55. "Sorted Vaporization for Surface Extracting Buton Natural Asphaltene as Unconventional Hydrocarbon Resources to Avoid Wastewater", <u>A. Promediaz</u> , N. Irmawati, L. Hendrawan				
	#60. "Determination of the Effects of Safflower Biodiesel and Its Blends with Eurodiesel on Engine Emissions in a Single Cylinder Diesel Engine", <u>A. E. Özçelik</u> , H. Ögüt, E. Çitil, S. Bacak				
	#67. "Power Tagging: an Intelligent Power Grid and Its Mapping", <u>H. K. Mudapaka</u> , P. Vankayalapati				
	#74. "Primary Research on the Flower Structures as a CPC and Bionic Design of Multi-Surface Solar Concentrator", <u>X. Xue</u> , H. Zheng, T. Tao				
	#114. "Fuzzy Power Demand Forecasting Based on Interval Arithmetic", <u>A.M. Mirlatif</u> , U. Atikol, F. Egelioglu				
	#123. "Managing Land and Water Resources in the Drought Prone Area of Bundelkhand Region with the Application of GIS and Remote Sensing", <u>S. Sudhakaran</u> , P. Shankar				
	#145. "Experimental Investigation of Single Phase Heat Transfer and Pressure Drop in a Plate Heat Exchanger", <u>M. S. Khan</u> , T. S. Khan, Z. H. Ayub				
	#260. "Study on the Water Removal Method in GDL Using Heat Pipe Effect", <u>S. I. Kim</u> , B. J. Kim, K. D. Baik, I. M. Kong, S. H. Hwang, M. S. Kim				
	#261. "Fabrication of Ultra-Fine Fiber Papers from Polyacrylonitrile for Gas Diffusion", <u>S. B. Kim</u> , Y. S. Jung, S. S. Kim				
	#269. "An Electrochemical Model Based State Estimation Technique for Real-Time Monitoring of Lithium-Ion Batteries", <u>S.M.M. Alavi</u> , M. Saif				
	#277. "Comparative Investigation of Several PVT Models", <u>J. Lin</u> , V.G. Qiu				
#380. "Sustainable Zero Energy Office Building Design in Cold and Dry Region of Tabriz in Iran", <u>A. Azami</u>					
#406. "Exergy analysis and Optimization of a Direct Steam Generation Solar Thermal-Power Plant", <u>A. Hamidi</u> , U. Atikol					
#407. "The Scenario of Annealing on the Resistivity of Backwall Schottky Barrier Solar Cells", <u>I. Danmallam</u> , H. Ali					
#540. "Conventional and Modern HVAC Systems from the Energy Conservation Point of View: Case of Iran", <u>J. Modonhaghghi</u>					
#545. "Performances Simulation of a Hybrid Renewable Energy System Integrating PV, Wind Turbines and Fuel Cells", <u>A. Bouziane</u> , K. Mohammedi, A. Boubenia, W. Tebib					
#563. "Performance Analysis of Compressor of an Air Source Heat Pump Water Heater by Exergy Destruction", <u>M. M. Ozturk</u> , L. B. Erbay					



## Tuesday, September 4, 2012

### Parallel Session 6

Location	Sea Island A	Sea Island B	Sea Island C	Locheed	Bristol
Time	Thermodynamic Applications I Session Chair: A. Ozer Arnas	Hydrogen Production II Session Chair: Marc A. Rosen	Sustainable Buildings II Session Chair: Xianfeng Fan	Environment and Public Session Chair: Hamed Shakouri Ganjavi	Solar Energy Applications I Session Chair: Bozena Kaminska
16:40-18:40	Special Talk (#681). "Importance of Thermodynamics in Engineering", <u>A. O. Arnas</u>	#288. "Thermochemical Integration of Hydrolysis and Electrolysis in the Cu-Cl Cycle of Hydrogen Production", <u>S. Aghahosseini</u> , I. Dincer, G.F. Naterer	#151. "A Study of Effectiveness of Modern Energy Efficiency Methods Application in Singaporean Residential Building", <u>Z. Ran</u>	#628. "Monitoring Building Energy Performance under Occupancy", <u>T. Sharmin</u> , X. Li, M. Gul, H. U. Gökçe, M. Al-Hussein	#185. "Ray Trace Analysis Comparison of ICS Solar Water Heater Based on Three Parabolic Sections (ICS3PS) and ICS Solar Water Heater Based on Two Parabolic Sections (ICS2PS)", <u>O. Helal</u> , B. Chaouachi, S. Gabsi
	#48. "A Simulation Study on the Annual Heating Performance of the Seawater-Source Tandem Heat Pump", <u>Y. J. Baik</u> , M. Kim, K. C. Chang, Y. S. Lee, H. J. Kim	#96. "Concentration Polarization in Palladium-Based Membrane Tube with High Permeance", <u>W. H. Chen</u> , M. H. Hsia, Y. H. Chi, Y. L. Lin, C. C. Yang	#457. "Choosing the Right Technology-Optimized Design of Renewable Supply Systems for Residential Houses", <u>C. Milan</u> , M. P. Nielsen, C. Bojesen	#410. "Green Jubail Industrial City", <u>M. I. Y. Aleid</u>	#149. "Recent Developments in Solar-Powered Micro CHP Systems", <u>M. Jradi</u> , S. B. Riffat
	#263. "Energy Efficiency in Variable Speed Circulation Pumps", M. Karaca, <u>M. Aydin</u>	#233. "Modification of Aluminum-Water Reaction to Produce Hydrogen with Useful Byproducts for Industrial Applications", <u>S. S. Razavi-Tousi</u> , J. A. Szpunar	#37. "Heat Losses from Non-Repeating Linear Thermal Bridge and Impact on Heating Energy Consumption in a Typical UK Home", <u>Y. K. Kim</u> , H. Altan	#413. "Natural Gas and Hydrogen Mixture for Urban Private Mobility", L. de Santoli, D. Dondi, <u>F. Fraticelli</u> , A. Genovese, A. Provenza	#459. "Simulation and Parametric Study of an Indirect Solar Seawater Desalination Plant", S. Shen, <u>S. Zhou</u> , X. Liu, Y. Guo
	#593. "Analysis of a Combined Power and Heating Thermodynamic System Driven by Low Temperature Heat Source", <u>J. Song</u> , X. Zhang, C. Yang, Q. Yao	#654. "Increasing Efficiency by Adding Hydrogen into the CNG Tank", <u>S. Z. Ilyas</u>	#116. "Architectural Design Strategies for Office Buildings of Santiago, Chile: Measurements and a Solar and Lighting Transmission Laboratory", <u>W. B. Gómez</u> , F. E. Pino, C. V. Zaldivar, S. V. Araya	#523. "A First Experimental Survey on the Urban Heat Island in Padua (Italy)", F. Busato, R. Lazzarin, <u>M. Noro</u>	#130. "Utilization of Solar Energy in the Production of Ethylbenzene", <u>A. Al-Rabiah</u>
	#683. "Exergoeconomic and Enviroeconomic Analyses of Hybrid Electric Vehicle Thermal Management Systems", <u>H. S. Hamut</u> , I. Dincer, G. F. Naterer	#234. "Optimizing Milling Parameters to Reduce Energy Consumption in Production of Hydrogen by Reaction of Aluminum with Water", <u>S. S. Razavi-Tousi</u> , J. A. Szpunar	#172. "Software Interoperability for Energy Efficient Building Operations Based on the IFC Data Model Standard", <u>K. U. Gökçe</u> , H. U. Gökçe	#661. "Construction of the Risk Management Parameters for Infrastructure Project Funding via Islamic Capital Markets", <u>A. A. Abdullah</u> , A. S. Yazid, H. A. Rahman, F. A. M. Rahim	#136. "Experimental Investigation and Performance Analysis of a Mini-Type Solar Absorption Cooling System", <u>Y. L. Yin</u> , X. Q. Zhai, R. Z. Wang
	#58. "Experimental Study of Ion Transfer and Overpotentials in an Oxygen Evolving Reactor for Electro-catalytic Water Splitting", <u>E. Baniasadi</u> , I. Dincer, G. F. Naterer	#173. "Virtual Energy Platform for Low Energy Building Operations", <u>K. U. Gökçe</u> , H. U. Gökçe	#635. "Aerogel with Its Outstanding Features and Building Applications", S. B Riffat, <u>E. Cuce</u>	#33. "Utilization of Solar Energy for Water Pumping in Saudi Arabia: Economical Feasibility Study", <u>S. Rehman</u> , A. Z. Sahin	
19:30-21:00	Banquet (Sea Island Ballroom)				

## Wednesday, September 5, 2012

### Breakfast (Sea Island Foyer) & Poster Session #8

08:00-09:00

- #82. "Replacement of Distributed Renewable Energy Technologies with Current Central Network in Iran: A Panel Data Analysis Based on Regional Transmission Costs", S.H. Nourbakhsh, H. Shakouri, A. Ehyaei
- #84. "The Development of a Prefabricated Roof Element with Implementation of Phase Change Materials (PCM) to Reduce Overheating in Chilean Central Valley Climate", K. S. Pascha
- #231. "Thermal Performance of Hybrid Heat Supply System for Zero Carbon Apartment", H. Y. Kwak, H. J. Joo, K.H. Lee, E. S: Yoon, M. C. Joo
- #237. "Whole-Systems Analysis of Decarbonised Power Generation Processes", Y. Zhao, N. Samsatli, N. M. Dowell, N. Shah
- #278. "Hydrogen Production from Wind Power in Western Canada", B. Olateju, A. Kumar
- #298. "Use of EnergyPlus Simulation to Compare PCM wallboard and PCM-Integrated Ceiling for a Detached Domestic House in China", H. Jiran, Y. Su, W. Xu
- #346. "Evaluation and Comparative Analysis on the Building Energy Codes and Standard of the USA and Korea", K. A. Kim, K. H. Yu
- #381. "Sustainable Landscape Revitalization of Saint Stepanous Church in Iran", A. Azami
- #382. "Sustainable Revitalization in Cave like Houses of Meimand Village in Iran", A. Azami
- #384. "Comparison of the Predicted Energy Savings forecasted Through an Environmental Performance Certificate (EPC) & Energyplus Building Simulation for a Retrofitted Domestic UK Property", D. Tetlow, Y. Su, F. Haoyu
- #471. "Atmosphere Water Vapour as A Factor of Sustainable Development of Uzbekistan Arid Zones", S. I. Nikolaeva, S. S. Mutalov, Y. V. Petrov
- #530. "Sustainable Refurbishment of a Historical Building: Linde - Robinson Lab at Caltech", H. J. Han, S. B. Riffat
- #538. "Characterization of a Fibre Reinforced Plastic Concentrating Solar Cooker", I. Okonkwo
- #549. "PVDF Thin Film-Based Piezoelectric Energy Harvester for Low-Frequency Applications", S. Saadon, O. Sidek
- #552. "Acceptable Comfort Limits under the Tropics- CFD Simulation Tools to Predict Building Naturally Ventilated Responses - Into a Degree per Degree Approach", A. Adarve, F. J. Lara
- #560. "Design of a Small-Scale Reverse Osmosis Desalination Plant Powered by Wind Energy", N. Uzal, Ö. B. Gökçek, M. Gökçek
- #574. "Assessment on Planning, Urban Fabric and Infrastructure Scales of 2009 Flodd in Jeddah, Saudi Arabia", A. A. Maghrabi
- #578. "Study on Improving the Structure of the Chilled Beam System", S. H. Joo, J. Y. Kim, H. J. Shin, J. S. Kim
- #579. "Monitoring the Performance of a Small-Scale Wind Turbine", M. Lajavardi, U. Atikol
- #583. "Dynamic Exergy Analysis of a Solar Ejector Refrigeration System with Hot Water Storage Tank", H. Golchoobian, A. Behbahania, M. Amidpour, O. Pourali
- #585. "Modeling of Pulse Combustion in Helmholtz Combustor", A. Mohamadrezaie
- #590. "Numerical Study of Sodium Alanate Based Hydrogen Storage Device Embedded with Aluminum Honeycomb Structure", G. Mohan, R. Mithun, U. M. Kurup
- #675. "The Production and Analysis of Biodiesel from Waste Chicken Skin and Pork Skin Fat and a Comparison of Fuel Properties to Petroleum Derived Diesel Fuel", A. Bhattacharya, K. Bharat
- #676. "Energy Efficiency Analyses through Ground Thermal Capacitor System- Case Study: Sustainable Official Building in Tehran", A. Azami, M. T. Rezaeiari

## Wednesday, September 5, 2012

08:30-17:30 Registration Desk at Exhibition Area

### Parallel Session 7

Location	Sea Island A	Sea Island B	Sea Island C	Locheed	Bristol
Time	Sustainable Environment II Session Chair: Jerzy Szpunar	Sustainable Development Session Chair: Khaled Al-Sallal	Waste Management Session Chair: Shuhong Li	Solar Energy Applications II Session Chair: Marco Noro	Energetic and Environmental Issues I Session Chair: Robert Honke
09:00-10:40	#140. "Use of River Source Heat Pump for Cooling, Heating of a Green Building", R. Li, <u>Y. Dai</u> , R. Wang	#535. "Sustainable Residential Development and Open Space Networks", <u>T. H. M. Hammadi</u>	#684. "Incineration of Transuranium LRW Nuclear Waste in a Laser Fusion-Hybrid Reactor", <u>S. Sahin</u>	#465. "Predicting the Indoor Condition of an Adobe Room for the Storage of Onions", M. Momoh, I. J. Uwanta, A. Mohammed, <u>B. Hamza</u>	#556. "Visualization of Single Bubble Behaviour for CO <sub>2</sub> Absorption Process in Nano-Fluid", <u>J. H. Kim</u> , Y. T. Kang
	#454. "Perspectives on Sustainability in Natural-Gas-Liquids Operations Through a Cleaner Production Framework", R. Fahd, <u>E. Musharavati</u>	#466. "Green Lab: A Strategic Design Framework to Develop Sustainable Research Laboratories", <u>R. Belibani</u> , E. Gigliarelli, J. Patterson	#331. "High-Performance Recycling System for Waste Plastics Using Raman Identification", <u>H. Kawazumi</u> , A. Tsuchida, T. Yoshida, Y. Tsuchida	#464. "Controlling the Periodic Flux of Solar Radiation into an Adobe Storage System for Onions: Part III - Effect of Sealed Water-Pond", <u>B. Hamza</u> , M. Momoh, A. A. L. Maduekwe	#510. "Development of Adsorption Desalination System Utilizing Silica-gel", <u>J. H. Hyun</u> , F. Israr, Y. J. Lee, W. G. Chun
	#612. "Effect of Global Warming and Buildings Envelope on the Driving Energy of Ground Source Heat Pump Systems", <u>M. Kharseh</u> , L. Altorkmany, F. Hassani, M. Al-Khawajah	#533. "Safety and Engineering Sustainability: Case Studies from the United Arab Emirates", <u>A. V. Chamchine</u> , E. M. Al Hashimi	#132. "The Product Yields and Characteristics of Corn cob Wastes under Torrefaction Atmospheres", <u>J. J. Lu</u> , W. H. Chen, K. M. Lu, Y. Q. Zhuang	#641. "A New Thermal Performance Factor for Solar Air Collectors", <u>D. Njomo</u> , M. Dagueuet	#402. "Long-Term Thermal Performance Monitoring for Large-Diameter Cast-in-Place Concrete Energy Pile", <u>S. Park</u> , D. Lee, Y. Joo, K. S. Jung, H. Choi
	#199. "Virtual Dashboard for Assessing Data Centers' Green Compliance", <u>F. Binesh</u>	#472. "Atmosphere Drought as a Factor of Uzbekistan Economy's Sustainable Development", <u>F. A. Ishniyazova</u> , Y. V. Petrov	#412. "A New World of Innovation: The Case for Increased Plastics Recycling and Energy Recovery", C. Cirko, <u>C. Foster</u>	#34. "A Solar Heater for Subzero Temperature Areas", N. Abas, <u>N. Khan</u> , I. Hussain	#320. "Numerical and Experimental Analysis of the Double Blade Hydrofoil for Hydro and Wind Turbines Applications, Part: II", <u>E. Koc</u> , T. Yavuz, B. Kilkis, Ö. Erol, C. Balas, T. Aydemir, E. İnal
	#664. "LEAP Modeling Energy Consumption and CO <sub>2</sub> Mitigation Potential of Turkish Cement Industry", <u>S. A. Ates</u>	#170. "Global Challenges for Watering Nuclear Power Plants", <u>I. Khamis</u>	#608. "Anaerobic Treatment and Biogas Production of Raw Leachate from Fresh Market Waste Composting by an Anaerobic Hybrid Reactor", <u>C. Wangnai</u> , P. Kullavanijaya	#449. "Numerical Study on the Energy Performance of a Novel Roof Integrated Unique Polyethylene Exchanger Combined a Heat Pump System", <u>B. Mempoou</u> , S. B. Riffat	#669. "Development of Standards and Codes for Hydrogen Refueling Facilities and Equipment in Malaysia", M. Dahari, <u>H.Y.Chong</u> , Y.T. Loong
10:40-11:00	<b>Refreshment Break &amp; Poster Session #9</b>				
	#291. "Application of Microencapsulated Phase Change Material Slurry in HVAC System", <u>J. Zhao</u> , N. Liu, J.L. Alvarado				
	#310. "A Study on Privacy Protection in Green Smart Healthcare Home Environment", <u>D. S. Seo</u> , S. S. Kim, Y. H. Lee				
	#307. "Numerical Analysis of Sustainable Usability of Turkey's Lignites for Thermal Power Plants by '3E (Energy and Economy and Ecology)' Dynamic Balance Approach", <u>N. Tokgöz</u>				
	#330. "Comparative Analysis of Environmental Loads and CO <sub>2</sub> Emission Cost by Building Structural Frame Type", <u>J. Moon</u> , Y. Shin, G. Hee Kim, D. Suk Seo				
	#360. "Productivity and Net Energy Analysis of Microalgal Cultivation in an Airlift-Raceway Reactor", <u>B. Ketheesan</u> , N. Nirmalakhandan				
	#442. "The Study of Effective Factors on the Participation of Women in Urban Environment Conservation with Emphasis on Ecofeminism Approach (Case Study: Tabriz's Municipalities Number 1&10)", <u>P. D. Livarjani</u> , B. Livarjani				
	#447. "Knowledge Behavior and Attitude through Global Warming, Environment and Energy in Health Sector: What the Hospital Managers Think About It?", <u>L. Colak</u> , M. Y. Colak				
	#448. "Knowledge Behavior and Attitude about Global Warming, Energy, Climate Change and Environmental Issues: Results of a Survey in Turkey", <u>L. Colak</u> , M. Y. Colak				
	#482. "Future Demand of Electricity in the Domestic Sector of Pakistan", <u>G. Valasai</u> , M. A. Uqaili, H. R. Memon, K. Harijan				
	#571. "Improving Energy Quality by a Photovoltaic System Combined with an Active Power Filter Using Three Different Current-Detection Algorithms", <u>B. Yahia</u> , D. Hind, C. Rachid				
	#616. "Ionic Conductors Thin Films for Solid Oxide Fuel Cells", <u>B. R. Adriana</u> , S. R. Guillermo, G. S. F. Mario				
#625. "An Integrated Active DSSC/Li-Ion Component for Smart Buildings", <u>M. Ferraro</u> , G. Brunaccini, F. Sergi, G. Napoli, V. Antonucci					
#629. "The Status and Characteristics of Korea's Housing Performance System", <u>L. S. Ok</u> , L. S. Ho					

## Wednesday, September 5, 2012

### Parallel Session 8

Location	Sea Island A	Sea Island B	Sea Island C	Locheed	Bristol
Time	Energy Materials Session Chair: Sandro Nizetic	Photovoltaic Applications Session Chair: Hirofumi Kawazumi	Fossil Fuels Session Chair: Shinfuku Nomura	Energy Systems Design & Modeling I Session Chair: Cevdet Aygun	Energetic and Environmental Issues II Session Chair: Surapong Chirattananon
11:00-12:40	#631. "Performance of Single Slope Solar Still with Solar Protected Condenser, Finned Absorber Plate Finned Phase Change Material Container", A. A. F. Al-Hamadani, <a href="#">S. K. Shukla</a>	#38. "Improving the Short Circuit Current and Open Circuit Voltage Simultaneously of a ZnO based Organic Solar cell by Mixing Self-assembled Monolayers", J. M. Chiu, <a href="#">D. Manaveh</a> , C. C. Chu, Y. Tai	#213. "A Comparative Life Cycle Assessment (LCA) of Compressed Natural Gas (CNG) and Diesel Powered Refuse Collection Vehicles (RCVS)", <a href="#">S. Ahmed</a> , L. Rose, M. Hussain, K. Malek, R. Costanzo, E. Kjeang	#441. "Performance Evaluation of a Novel Magnetic Desiccant Ventilation System", <a href="#">A. Dodo</a> , S. Omer, J. Zhu, S. B. Riffat	#319. "Numerical and Experimental Analysis of the Airfoil-Slat Arrangements for Hydro and Wind Turbines Applications: Part I", <a href="#">T. Yavuz</a> , E. Koç, B. Kilkış, Ö. Erol, C. Balas, T. Aydemir, E. İnal
	#555. "Enhancement Cooling Performance of LED Packages with Carbon Nano Paste", <a href="#">S. R. Nam</a> , C. W. Jung, Y. T. Kang	#674. "A Study of the NFRC 201 for Solar Calorimeter Fabrication", <a href="#">J. H. Park</a> , S. Cho, S. H. Lim, S. B. Riffat	#440. "Modeling and Forecasting Long Term End-use Natural Gas Consumption in Iran Using Particle Swarm Optimization", M. Taghipour, <a href="#">S. F. Ghaderi</a>	#451. "Improving Operating Efficiency of Installed Capacity in a Power/Water Cogeneration Plant", <a href="#">F. Musharavati</a>	#352. "Investigations for the Thermal Influence of Glass Patterns on the Building Envelope", <a href="#">S. J. Lin</a> , Y. C. Chen, P. T. Sun
	#109. "Investigation to Standardise Thermal Performance of a Novel Domestic UK Solar Thermal Storage with the Inclusion of PCM", <a href="#">D. Tetlow</a> , <a href="#">F. Agyenim</a>	#326. "Simulated and Measured Performance Comparison of a Building-Integrated Photovoltaic Array in Iqaluit, Nunavut", <a href="#">M. D. Brown</a> , C. A. Cruickshank	#202. "Energy and Exergy Analysis of a Trigeneration Facility with Natural Gas Engine", <a href="#">E. Acikkalp</a> , O. Balli, H. Yamik, H. Aras	#453. "Simulation Modeling and Analysis of Water/Power Ratios for a Dual Purpose Water and Power Production Plant", L. M. Diab, <a href="#">F. Musharavati</a>	#597. "CO <sub>2</sub> /POE32 Oil as Working Fluid in Low-Grade Heat Applications", <a href="#">F. A. Albatati</a> , S. B. Riffat
	#634. "Activated Carbon Reinforced Microcellular Phenolic Foams for Insulating Materials", <a href="#">S. A. Song</a> , S. S. Kim	#527. "Development of a Two-Axis Solar Tracker for Daylighting and CPV (Concentrator Photovoltaics)", <a href="#">S. J. Oh</a> , Y. J. Lee, F. Israr, S. W. Shin, W. Chun	#146. "Thermogravimetric Studies on Co-Combustion Characteristics of Mengxi Coal and Poplar", K. Shi, <a href="#">T. Wu</a> , J. Yan, H. Zhao, P. Hall, E. Lester	#469. "Multisource Heat Pump System from Design to Operation: The Case Study of a New School Building", <a href="#">E. Busato</a> , R. Lazzarin, M. Noro	#341. "Recent Advances on Desalination Technologies", <a href="#">A. Mayerer</a> , S. B. Riffat
	#648. "Experimental Study of the Heat Transfer Performance of PCMs Within Metal Finned Containers", Y. Li, <a href="#">S. Liu</a> , Y. Zhang	#147. "Performance Analysis of a Novel Lens-Walled Compound Parabolic Concentrator Photovoltaic System", G. Li, <a href="#">G. Pei</a> , Y. Su, J. Ji, S. B. Riffat	#504. "Treatment of Arsenic in the Effluent of a Coal Fired Power Plant", <a href="#">M. M. Shamel</a> , H. K. Chun, F. Y. Kai, A. Firnaaz, H. Andreas	#553. "Assessment of Indoor Air Quality for Pollution Exposure Caused by Human Metabolism and Building Material", <a href="#">J. Wang</a> , E. Long, X. Zhang	#417. "An Equivalent-Capacitance Approach for Determining the Performance of a Refrigerant Coil", <a href="#">C. K. Lee</a> , H. N. Lam
	#419. "Experimental Investigation of Thermal Behavior of Vacuum Insulation Panels with Different Core Materials", <a href="#">S. S. Alotaibi</a> , S. B. Riffat	#275. "Mathematical Model and Software to Optimize Power of Organic Photovoltaic (OPV) Cells for Several Panel Set-Ups", <a href="#">N. Sadeghi</a> , B. Kaminska	#546. "Contribution of Exergy and Exergy Analyses to Cement Plants Sustainability", <a href="#">K. Mohammadi</a> , M. Ladjani, Y. Smaili, K. Saadi	#294. "Influence of Turbine Inlet Temperature on the Efficiency of Externally Fired Gas Turbines", <a href="#">P. E. B. De Mello</a> , S. Scutto, F. S. Ortega, G. H. B. Donato	#551. "Grid-Based Led Lighting System with Multi-Touch Panel Design and Daylight Control", <a href="#">C. H. Lee</a> , I. L. Chen, S. C. Kang
<b>Lunch Break &amp; Poster Session #10</b>					
12:40-14:00	#290. "Applying Solar Energy Technologies", <a href="#">E. Behboodi</a>				
	#315. "A Hurricane Control Mechanism for a Novel Floating Wave Energy Converter Using a Fuzzy Logic Controller", <a href="#">P. Razavi</a> , A. Zabiollah				
	#372. "Long Term forecasting for the Share of Renewable Energy in Iran Energy Supply: an Optimization Model by Message", <a href="#">S. Aliakbarisani</a> , S. H. Nourbakhsh, H. Shakouri				
	#387. "Contribution for Solar Mapping in Algeria", <a href="#">A. Kamel</a> , H. A. Amar				
	#436. "Experimental Study of a Trial Eco-PACBOX PCM System for HVAC Application in Buildings", <a href="#">I. Danmallam</a> , M. Garba				
	#445. "Renewable Energy Policies in Iran", <a href="#">H. Tabarjafar</a> , H. Ghaebi				
	#480. "Comparative Analysis of Energy Consumption and CO <sub>2</sub> Emissions by Building Structural Frame Type", <a href="#">J. Moon</a> , Y. Shin, G. Hee Kim, D. Suk Seo				
	#481. "Operating Characteristics and Sensitivity Analysis of the CR5 Solar Thermochemical Heat Engine", <a href="#">R. E. Hogan</a> , J. E. Miller, D. L. James				
	#524. "Designing Out Risk Using Post-Occupancy Evaluation Methods in Domestic Construction", <a href="#">D. Bailey</a> , M. Gillott, R. Wilson				
	#532. "Autonomous Solar Energy Supply System with Different Type of Thermo Energy Transformers", <a href="#">O. Buyadgie</a> , D. Buyadgie, O. Drakhnia, A. Chamchine, S. Artemenko				
	#537. "Zero Energy Building Technology", <a href="#">J. Alam</a>				
	#558. "The Application of Integrated Environmental Design Approach in the Design of Jouberton Nursery School at South Africa", <a href="#">B. Lau</a> , D. Sekar				
#573. "Effects of Legume-Based Crop Rotation on Rhizobia Assemblages in a Cultivated Semi-Arid Land in Southern Kenya", <a href="#">A. U. Denis</a> , N. Gichuki					
#584. "Conserving Petroleum to Extend Petroleum Age", <a href="#">S. Gogate</a>					
#613. "Effect of Light and Hydrodynamics on the Microalgae Growth", <a href="#">T. N. Quang</a> , I. Yildiz					
#621. "The Building Sustainable Regulations for Social Housing in Mexico", <a href="#">D. Avila</a>					
#622. "Application of Green Buildings Technologies in the Construction Regulations of Mexico", <a href="#">S. Arias</a>					
#630. "A Times series Analysis on the Performance Items of the 'Housing Performance Grading Indication System in Korea'", <a href="#">L. S. Ok</a> , L. S. Ho					
#638. "Exergy and Exergo-Economic Based Analyses of a Gas Turbine Power Generation System", <a href="#">A. Mousafarash</a> , K. Magsoudi Mehrabani, A. Salehi					
#647. "Comparatively Analysis of the Technologies to Recovery Pressure Energy at Natural Gas Pressure Reduction Station", X. Huang, <a href="#">S. Liu</a> , J. Li, S. Peng					
#677. "Adding Hydrogen to Salt", <a href="#">L. Gray</a>					

## Wednesday, September 5, 2012

### Parallel Session 9

Location	Sea Island A	Sea Island B	Sea Island C	Locheed	Bristol
Time	Energy Policy II Session Chair: Ulvi Arslan	Energy and Buildings Session Chair: Shiang-Jiun Lin	Thermodynamic Applications II Session Chair: Waldo Bustamante Gómez	Biomass Energy II Session Chair: Yonggao Yin	Energy Systems Design & Modeling II Session Chair: Zhongcheng Duan
14:00-16:00	#475. "Enhancement of Iran's Energy Industry Based on an IT Maturity Assessment Framework", <u>A. Keramati</u> , F. S. Amiri	#303. "An Evaluation of Indoor Environments in Social Housing in the South Yorkshire and the Humber Region of England, UK", <u>M. Refaee</u> , H. Altan	#126. "A Study on Industrial Waste Heat Recovery Compression/Absorption High-Temperature Hybrid Heat Pump System", <u>J. Kim</u> , S. R. Park, M. Kim, Y. J. Baik, K. C. Chang, H. S. Ra, Y. Kim	#483. "Effects of Local and Industrial Adsorbents on Biogas Generation from Cow Dung", <u>G. O. Osueke</u> , G. O. Makwe, U. I. N. Umar	#520. "Mathematical Modeling of Solar Chimney Power Plants with Sloped Collector", <u>A. Koonsrisuk</u>
	#521. "Energy Policies and Strategies in Slovakia", <u>M. Svitekova</u>	#358. "Exploring Buildings' Secrets: Understanding the Ideal Thermal Properties of a Building's Wall", <u>Y. Zhang</u> , Q. Chen, Y. Zhang, X. Wang	#487. "A Study on Thermal Performance of Convergence Window System", S. Cho, <u>W. S. Kim</u> , S. H. Lim, S. B. Riffat	#473. "Rapid and Automated Measurement of Biofuel Blending Using Microfluidic Device", <u>S. Goel</u> , D. Rai, P. Puri, S. Nain, R. Prajesh, P. S. Venkateswaran, A. Agarwal	#377. "A Study of Radial Wind Breakers", B. Ghorbani, J. Khaleghinia, <u>F. Kimiaghalam</u> , M. Amidpour, H. Golchoobian
	#332. "Smart Grid Needs Special Policy and Market Regulation to Transform the Energy Business into Environmental Sustainability and Growth", <u>C. A. F. Lima</u> , G. M. Jannuzzi	#113. "Impact of Shape, Occupation and External Parameters in the Overall Thermal Performance of Office Buildings in Santiago, Chile", <u>C. Vásquez</u> , A. Prieto, C. Aguirre	#189. "High Performance Glazing Types and Windows Technologies Review", <u>L. Haoyang</u> , S. B. Riffat	#90. "A Numerical Study on Mixing Flow for Biomass Gastification", <u>P. Deb</u>	#192. "Establishment of Hybrid Solar-Wind-Gas Generating System Enhancing Sustainable Energy", <u>A. Azhar</u> , M. S. Muhammad
	#388. "Dealing with Barriers to Energy Efficiency in Italian Manufacturing SMES: A Field Investigation", <u>A. Trianni</u> , E. Cagno, E. Worrell	#456. "A Scientific Planning Support Approach for High-Performance Green Building Design: Singapore Case", <u>S. Chien</u> , I. K. Narendra, K. Parrish, R. Singh, N. Y. Jadhav, M. Brychta	#503. "Residential Micro Tri-Generation System Based on Thermo Chemical Accumulator (TCA)", <u>Z. M. Hasib</u> , N. Ekrami, P. Lele S. B. Dworkin, A. S. Fung, D. Naylor	#536. "A multi-modal optimization for transportation network of Biomass supply chain considering Carbon Foot Print (CFP)", <u>S. Torabzadeh</u> , J. Razmi, R. Ghodsi	#268. "Daylighting System for Visual and Thermal Comfort", <u>R. Tukur</u> , S. B. Riffat
	#389. "Driving Forces for Industrial Energy Efficiency Within SMES: Empirical Evidences from the Italian Manufacturing Sector", E. Cagno, <u>A. Trianni</u>	#411. "Building Energy Usage Estimation Through Conceptual Development of an Integrated Software Framework", <u>A. Aghahosseini</u> , A. Alijamaat	#152. "Numerical Analysis of the Thermo-Mechanical Behavior of Energy Piles", H. Zhao, P. Cui, L. Lu, <u>Z. Fang</u>	#559. "A Comprehensive Review on Gasification Technology", <u>R. Ghodsi</u> , M. A. Khansary, A. Hosseini, P. Sadeghi	#511. "Control and Harnessing of Wind in Tall Buildings", <u>Z. Duan</u> , D. Sun
	#46. "The Energy Demand in Iran Industrial Sectors", H. G. Shakouri, <u>A. Kazemi</u>	#69. "Integrative Approach for Desert Sustainable Ecohouse Design", <u>K. A. Al-Sallal</u> , I. K. Al-Sallal	#54. "Evaluation of Transient Behavior of a Single-Effect Absorption Chiller", A. Iranmanesh, <u>M. A. Mehrabian</u> , M. Salmanzadeh	#369. "Sustainable Biohydrogen Production from Sucrose Supplemented with Dairy Manure", K. R. J. Perera, N. Nirmalakhandan	#122. "Optimization of the Thermal Bridge Effect of Sandwich Panels of High Performance Concrete", <u>S. Hansen</u>
<b>Refreshment Break &amp; Poster Session #11</b>					
16:00-16:40	#78. "Experimental Performance Analysis of a Novel Desiccant Based Air Conditioning System", <u>E. Hürdoğan</u> , O. Büyükalaca, T. Yilmaz, A. Hepbasli, I. Uçkan				
	#150. "How Less Renewable Energy Installation Equals More the Influence of Low Exergy Building Systems on Renewable Installation Feasibility", <u>E. Meqgers</u>				
	#159. "Green Roof: Facts and Figures", <u>O. Saadatian</u> , C. Lim, S. Mat, M. Sulaiman, K. Sopian				
	#164. "Nano-Polymercement", <u>Al-Rifaie</u> , W. K. Ahmed, O. M. Mahdi				
	#169. "Stochastic Functional Energy Audit: towards Residential Hot Water Usage Energy Management and Evaluation in South Africa", <u>C. Onunka</u>				
	#203. "Pd-Cu/C Anodic Catalysts for formic Acid Electro-Oxidation", <u>J. B. Wang</u> , C. L. Tsai				
	#214. "Design and Optimization of a Polyaniline Polymer Based Solar Cell Doped with Nanoparticles", <u>G. Samandari</u> , S. Pourjamal				
	#246. "Biohydrogen Production from Normal Brewery Wastewater", <u>N. Sinbuathong</u> , C. Somjit, S. Leungprasert, D. Watts				
	#271. "Numerical Simulation and Experimental Investigation of Activated Carbon-R134a Adsorption Refrigeration System", <u>M. Suresh</u> , M. Raseem F, S. Sundar S, S. Sugash R, T. Veerarghavan				
	#300. "Reactive Extraction of Caproic Acid Using Tri-Octyl Amine in 1-Octanol", <u>A. K. Rathore</u> , D. Z. Shende, K. L. Wasewar				
	#304. "Numerical Simulation of Solar Driven Absorption Cooling System with an Innovative Medium Temperature Solar Collector", <u>Y. Zhao</u> , Y.J. Dai, R.Z. Wang				
	#305. "The Influence of the Atmospheric Drought on the Stable Development of Economy of Uzbekistan", <u>F. A. Ishniyazova</u> , Y. V. Petrov				
	#378. "Characteristics of Surface Temperature and Generation Efficiency of BIPV in the Spandrel Area of Curtain Wall System", <u>J. H. Yoon</u> , M. H. Oh, K. H. Lee, W. C. Shin, N. C. Baek				
	#206. "Kinetic Study of the Steam Reforming of a Blend of Common Bio-Based Industrial Wastes for the Production of Hydrogen over Ni-Based Catalysts", A. Zahid, <u>H. Ibrahim</u> , P. Sengupta, A. Khan, R. Idem				
	#586. "CFD Simulation of Hydrodynamic and Thermal Performance of Perforated Heat Sinks", <u>F. Ismail</u> , T. H. Khan				
#620. "Trace Contaminant Treatment and Renewal Energy Production Using Membrane Bioreactor Technology", <u>A. J. Ghoshdastidar</u> , A. Z. tong, M. Tango					
#649. "Micro-Scale Weather Condition Recognition Based Ultra-Short-Term Power forecast of Solar Photovoltaic Power Plant", <u>F. Wang</u> , Z. Mi, B. Yu, S. Su, L. Zhang, C. Zhang					

## Wednesday, September 5, 2012

### Parallel Session 10

Location	Sea Island A	Sea Island B	Sea Island C	Locheed	Bristol
Time	Energy Savings II Session Chair: Zhaohong Fang	Ground Source Heat Pumps Session Chair: Zhen Li	Thermodynamic Modeling & Analysis Session Chair: Ibrahim Dincer	Heat Transfer Applications II Session Chair: Tahir Yavuz	Energetic and Environmental Issues III Session Chair: Zuomin Dong
16:40-18:40	#371. "A Feasibility Study on the Development of Eco-Planting Blocks Using Bottom Ash", J. H. Oh, H. R. Ahn, <u>S. C. Yang</u> , Y. M. Song, Y. K. Huh, Y. C. Ahn	#86. "A Numerical Methodology for Optimum Hybrid Ground Source Heat Pump System Design", <u>M. Alawy</u> , H. V. Nguyen, W. H. Leong, S. B. Dworkin	#666. "Measurement of Cooling Effect from Evaporator of a Small Scale Single Bed Desalination System", <u>F. Israr</u> , J. H. Hyun, S. J. Oh, N. K. Choon, W. Chun	#547. "Computer Simulation of Heat and Mass Transfer in a Cross Flow Parallel-Plate Liquid Desiccant-Air Dehumidifier", <u>A. T. Mohammad</u> , S. Bin Mat, M. Y. Sulaiman, K. Sopian, A. A. Al-Abidi	#528. "Acoustic Energy Output and Synchronization of Standing-Wave TA (Thermoacoustic) Lasers", S. W. Shin, <u>S. J. Oh</u> , K. Chen, N. J. Kim, W. Chun
	#265. "Development of a Low Energy Consuming and Environmental Friendly Filter for Water Purification", <u>J. I. Cho</u> , Y. C. Ahn	#607. "Numerical and Experimental Study on Performance of Ground Source Heat Pump and the Underground Heat Exchangers", J. Wang, <u>S. Li</u> , X. Zhang	#66. "Numerical Analysis of Entropy Generation at the Entrance of a Rectangular Channel", <u>B. Doğan</u> , L. B. Erbay	#71. "Experimental Behaviour of a HGHE Flat Panel: Preliminary Results", <u>M. Bottarelli</u>	#557. "Intrinsic N-Doped CVD Grown TiO <sub>2</sub> Thin Films for Photoelectrochemical Applications", <u>S. J. Kim</u> , R. A. Fischer, A. Devi
	#349. "Energy Saving in Domestic Refrigerators by an Adaptive Defrost Method", <u>M. Rasti</u> , M. M. Joybari, N. Rasti	#148. "Thermal Response Test Analysis for an Energy Pile in Ground-Source Heat Pump Systems", <u>C. K. Lee</u> , H. N. Lam	#398. "Analysis of Different Configurations of Single Stage Absorption Heat Transformers Coupled with Single and Double Effect Desalination Systems Integrated in Flat Plate Solar Collectors", <u>K. Parham</u> , M. Yari, U. Atikol, A. Hamidi	#401. "Performance of Textile Type Ground-Coupled Heat Exchangers in Tunnel", <u>C. Lee</u> , S. Park, J. Won, B. Sohn, H. Choi	#385. "Robust Control Techniques of ASVC-Based Var Flow Compensation", M. Benyamina, <u>B. Mazari</u>
	#623. "Testing of Energy Efficient Wall Systems for Mid-Rise Wood Frame Buildings", <u>M. Gul</u> , H. Zaman, R. Mutsuddy, H. Yu, M. Al-Hussein	#14. "Thermal Foundation", <u>Y. Cui</u> , J. Zhu, S. B. Riffat	#408. "Energy and Exergy Analyses of a Combined Energy System for an Ice Cream Factory", <u>Ö. Kizilkan</u> , I. Dincer, A. Kabul	#383. "Generalized Heat Exchanger: A New Concept and Its Thermal Performance Analysis", <u>Y. Zhang</u> , Y. Zhang, W. Shi	#110. "Development of a Finite Element Model for Assessing Enhancement Technology for PCM Inclusion within a UK Based Domestic Solar Thermal System", <u>D. Tetlow</u> , F. Agyenim
	#177. "Using Bubble Deck Building for Saving Energy in North of Iran", <u>R. Vafaei</u> , A. Dalili, A. Aminfar, B. Baghinejad	#211. "Dynamic Thermal Modelling of the Performance of Horizontal-Coupled Ground Source Heat Pumps in the UK", <u>G. Gan</u>	#228. "Modelling Perceived Indoor Air Quality in Mechanically Ventilated Office Buildings-A Case Study", <u>M. Ncube</u> , S. B. Riffat	#539. "Numerical Study of Solidification in Triplex Tube Heat Exchanger", <u>A. A. Al-Abidi</u> , S. Mat, K. Sopian, M. Y. Sulaiman, T. Abdulrahman	#348. "Empirical Formulation of Shear Modulus Functions for Tubular Pinewood Specimens", <u>E. Gunay</u> , C. Aygun, E. Uludogan
	#605. "Reduction of Energy Demand in Domestic Properties through the Use of Wireless Behaviour Information (Wi-Be) Systems", R. Shipman, M. Gillott	#210. "Comparison of Thermal Performance of Slinky Coils and Straight Pipes for Ground Source Heat Pumps", <u>G. Gan</u> , A. Chong, A. Verhoef, R. G. Gonzalez		#603. "How to Determine Coupled Heat and Mass Transfer Coefficients Scientifically Between Air and Liquid Desiccant", <u>Y. Yin</u> , X. Pani, X. Zhang	#518. "Self-Assembled Monolayers Assisted Thin Film Growth of Aluminum Doped Zinc Oxide by Spray Pyrolysis method", <u>M. Solomon</u>
18:40-18:55	Closing Remarks in Sea Island A				