

**Fourth International Exergy, Energy and Environment Symposium
(IEEEES-4)
April 19-23, 2009**

Time	Day 1 - Sunday - April 19, 2009
9:00-13:00	Registration
13:00-14:00	Break
14:00-17:00	Registration

Time	Day 2 - Monday April 20, 2009
9:30-10:00	Opening Ceremony
10:00-11:00	Keynote Lecture 1
11:00-11:25	Coffe Break
11:30-13:30	Sessions 1A1, 1A2, 1A3
13:45-14:40	Lunch
14:45-16:45	Sessions 1B1, 1B2, 1B3

Time	Day 3- Tuesday- April 21, 2009
9:00-10:00	Keynote Lecture 2
10:00-10:25	Coffee Break
10:30-12:30	Sessions 2A1, 2A2, 2A3
12:30-13:30	Lunch
13:40-14:40	Keynote Lecture 3
14:45-16:45	Sessions 2B1, 2B2, 2B3
17:00-18:00	General Meeting

**Gala Dinner - Radisson SAS Resort-Sharjah -
20:00 - 22:00**

Time	Day 4 - Wednesday-April 22, 2009
9:00-10:00	Keynote Lecture 4
10:00-10:25	Coffee Break
10:30-12:30	Sessions 3A1, 3A2, 3A3
12:30-13:45	Lunch
14:00-15:00	Keynote Lecture 5
15:15-17:00	Sessions 3B1, 3B2, 3B3

Time	Day 5 -Thursday- April 23,2009
9:00-9:30	Coffee Break
9:45-11:15	Sessions 4A1, 4A2, 4A3
11:30-12:30	Closing Ceremony

Fourth International Exergy, Energy and Environment Symposium (IEEEES-4)

April 20-23, 2009

Detailed Program

Monday April 20, 2009

Opening Ceremony - Hall A (9:30-10:00)

Keynote Speaker: Prof. Feridun Hamdullahpur -Hall A (10:00-11:00)

**Energy Outlook for the Next Twenty-five years: The Confused Roles of Nuclear
and Renewable Energy Sources**

Coffee Break (11:00-11:25)

Session 1A-1: Renewable Energy (11:30 - 13:30)- Main Building G 41(Senate Room)

Session Chair: Ibrahim Dincer

Time	TrackChair Paper ID	Title of Paper	Authors
11:30- 11:45	45325	Contribution of Wind Power Plants to Frequency Control	A.R . Al-Awaad, S. Voller, J .Verstege
11:45-12:00	70437	Cost of Hydrogen Production by Geothermal Power	M. Kanoglu, A Bolatturk
12:00-12:15	72763	Environmental Impacts of fossil Fuels in Tehran and Need for Alternative Sources of Energy	F. Halek, A Kavousi
12:15-12:30	19838	Usage of Biogas and Renewable Energy in Iran and its Effect on Urban area	A. Behbahani
12:30- 12:45	96683	Exergy and Energy Analysis of Co-Gasification Process of Biomass and Coal in Supercritical Water by Continuous Flow Thermal-Catalytic Reaction System	Q . Yan, L. Guo
12:45- 13:15	68817	Artificial Neural Network Estimation of Wind Speed Using air Temperature, Relative Humidity and Vapor Pressure	A. Noghrehabadi, E. Assareh, M . Behrang

Monday April 20, 2009

Session 1A-2: Fuels and Alternatives (11:30 - 13:30) G42 – Hall B

Session Chair: Yusns Cengel

Time	TrackChair Paper ID	Title of Paper	Authors
11:30-11:45	24986	Comparative Investigation the Use of Methanol and Methyl tertiary Butyl Ether in Gasoline on the Performance and Fuel Cost of a Spark Ignition Engine	A. Bilgin, I. Sezer, I. Altin
11:45-12:00	52070	Fuel Recovery from Waste Oil Sludge Sing Solvent Extraction Combined with a Demulsifier	D. Stevenson-Abouelnasr, E. Al Zubaidy
12:00-12:15	37890	Reclamation of Lubricating-Waste Oil from Cars that used Leaded or Unleaded Gasoline	E. Al Zubaidy, T. Ibrahim
12:15-12:30	43764	Investigation of the Used Frying Vegetable Oil Methyl ester and its Blends as Fuels for Diesel Engines	C. Steyn, M. Mbarawa
12:30- 12:45	72574	A Preliminary Study for the Production of Ethanol from solid wastes in U.A.E.	K. Fouad, A. Shanabla, M. Yousif, S. Zagho, H. Attwa, D. Jaffal, T. Ibrahim
12:45- 13:15	88001	Usage of Biogas and Renewable Energy in Iran and its Effect on Urban Aarea	A. Behbahani
13:15-13:30	22694	Dual Fuel Diesel Engine's Performance and Emissions With EGR & Water-Emulsion	M. Ali, M. Abdelaal, M. Ghaly

Session 1A-3: Green and Sustainable Buildings (11:30 - 13:30)) LIB 011(Library)

Session Chair: E Sciubba

Time	TrackChair Paper ID	Title of Paper	Authors
11:30-11:45	19349	New Green Buildings in Saharian Architecture	A. Ahriz, Z. Daoued, F. Soufiane, Z. Noureddine
11:45-12:00	50262	Energy and Economical Assessments of a Green Commercial Building in UAE	M. Gadalla, T. Mushtaha
12:00-12:15	98482	Energetic Use as a Concept for Urban Design	S. Fezzai, S. Maazouz, D. Zeroual, A. Ahriz
12:15-12:30	72478	Impact of Form on the Energy Performance of Buildings - Case of Hot and Dry Climates- Contribution to Sustainable Buildings	D. Zeroual, F. Bourbia, A. Ahriz, S. Fezzai
12:30- 12:45	47247	Experimental Study about how we Can Utilize the Energy of the Sun & Biological Bass for Getting a Healthy Hot Water	A. Mohammad

Luncheon (13:45-14:40)

Monday April 20, 2009

Session 1B-1: Renewable Energy (14:45 - 16:45) G41 – Senate Room

Session Chair: F. Hamdullahpur

Time	TrackChair Paper ID	Title of Paper	Authors
14:45-15:00	71547	Production of Biogas from Sludge of the Municipal Wastewater Treatment Plant	S. Kalloum, H. Bouabdessalem, A. Touzi, A .Iddou, M.S. Ouali
15:00-15:15	73925	Solar Assisted Air-conditioning as a Demand Side Management Option in South Africa	W. Matekenya, M . Mbarawa
15:15-15:30	56142	Matlab-Based Tool for the Design of Building Integrated Photovoltaic (BIPV)	A. Assi, K. Al Kathairi, M. Jama, I. Al Shehhi, S. Fattahi
15:30-15:45	25428	Survey The Biogas As Suitable Alternative Instead of Fossil Fuels Toward Sustainable Development	H .Sharifan, A. Davari, N. Banan, A. Behbahani, H. Zakeri
15:45- 16:00	69312	Thermodynamic Optimization of Various Cycles for a Geothermal Resource	A. Coskun, A. Bolatturk, M. Kanoglu
16:00- 16:15	77769	Variation of Cell Parameters of a p-Si PV Cell with Different Solar Irradiances and Cell Temperatures in Humid Climates	E Cuce, T Bali
16:15- 16:30	88300	Electrical Characterization of a Hybrid Photovoltaic-Hydrogen/Fuel Cell Energy System in Denizli, Turkey	E Cetin, A Yilanci, Y Oner, M Colak, I Kasikci, H Ozturk

Session 1B-2: Fuels and Alternatives (14:45 - 16:45) G 42- Hall B

Session Chair: A. Kilicarslon

Time	TrackChair Paper ID	Title of Paper	Authors
14:45-15:00	88404	Experimental Characterization of Hydrogen-Methane Blending Fuel Combustion in a Model Combustor	M . Ilbas, I. Yilmaz
15:00-15:15	19127	CNG may be The Alternate Fuel for the Future Decade in Bangladesh	D. Ghosh, Md. Hadiuzzaman
15:15-15:30	63801	The Sustainable Alternative Fuel Free Transport for the Future Decade in Bangladesh	D. Ghosh, Md. Hadiuzzaman
15:30-15:45	67728	Performance Characteristics of a Diesel Engine Operating with Biodiesel Derived from Rapeseed Oil	C. Ilkilic, H. Bayindir, R. Behcet, H. Aydin
15:45- 16:00	68047	Exhaust Emissions of a CI Engine Operating with Biodiesel Derived from Rapeseed Oil	H .Aydin, C. Ilkilic, R .Behcet, H. Bayindir
16:00- 16:15	93433	Biodiesel Production from Euphorbia Tirucalli	A. Khaleghian, M. Rezaiee, A. Takahashi, N. Harada, Y. Nakaya, G. Riazi, H. Nazari

Monday April 20, 2009

Session 1B-3: Sustainable Development (14:45 - 16:45) LIB 011 (Library)

Session Chair: A. Sahin

Time	TrackChair Paper ID	Title of Paper	Authors
14:45-15:00	49575	Computational Intelligent Based Decision Maker for Electric Vehicle on Indian Roads	P. Shivkumar
15:00-15:15	68081	Management of Household Waste in Batna for a Sustainable Development	L. Sefouhi, M. Kalla, L. Aouragh, L. Haddad
15:15-15:30	62201	Exergy-Based Metrics for Sustainable Design	A .Shah, C. Patel, V. Carey
15:30-15:45	42083	Estimating of Oil Demand in Iran using Particle Swarm Optimization (PSO) and Genetic Algorithm (GA) methods	M. Assari, A. Ghanbarzadeh, E. Assareh, M. Behrang
15:45- 16:00	65577	Distributed Generation	E. Ragaban
16:00- 16:15	28914	Domestic Organic Garbage Treatment by the Biothermal-Reactant	A. Mohammad

Tuesday April 21, 2009

Keynote Speaker: Prof. Ibrahim Dincer - Hall A (9:00-10:00)

Some Recent Developments in Energy Analysis and its Role for Better Environment and Sustainability

Coffee Break (10:00-10:25)

Session 2A-1: Energy Management in Industrial Sectors (10:30 - 12:30)G41- Senate Room

Session Chair: I. Benko

Time	TrackChair Paper ID	Title of Paper	Authors
10:30 -10:45	57672	Economic and Environmental Effect of Energy Management for Hybrid Renewable System: A Case Study for Poultry Industry	E. Akyuz, Z. Oktay, I. Dincer
10:45-11:00	35186	Electricity Demand Estimation in Iranian Industrial Sector Using Particle Swarm Optimization (PSO) and Genetic Algorithm (GA) Methods	M. Assari, A. Ghanbarzadeh, M. Behrang, E. Assareh
11:00-11:15	74129	Energy - Exergy Analysis and Carbon Dioxide Emission of Nigerian Cement Manufacturing Industry	C. Diji, R. Fagbenle
11:15- 11:30	79431	Integration of Energy Consumption in the Carbon Black Production Cycle, using Pinch Technology; Retrofit Approach	A. Ghafouri, Sh. Hashemi-Marghzar, H. Rahimzadeh
11:30 -11:45	64098	Management of Electrical Transmission Losses under Restructuring	D. Dalabeih
11:45- 12:00	81673	Systematic approach to Energy Saving: an Integrated methodology for industrial plant	L .Andreassi, M. Ciminelli, B. Di Silvio, V. Introna, S. Ubertini

Tuesday April 21, 2009

Session 2A-2: Entropy and Exergy Analyses (10:30 - 12:30) G 42 – Hall B

Session Chair: K. Mansour

Time	TrackChair Paper ID	Title of Paper	Authors
10:30 -10:45	Invited	The 2 nd Law as the 2 nd Dimension of Existence	Y. Cengel
10:45-11:00	66575	Computer Simulation of a Liquid-Phase-Splitting Refrigeration Cycle Using Aspen Flowsheet Simulator	N. Darwish
11:00-11:15	14606	Exergy analysis and Energy Optimization in Fluid Bed Dryer Based on Two-Fluid Model	M. Assari, H. Tabrizi, E. Najafpour
11:15- 11:30	74786	Exergy Analysis of a Low-Temperature Solar Thermal Power System Based on Exergy-Topological Models	B. Tchanche, G. Papadakis, G. Lambrinos, A. Frangoudakis
11:30 -11:45	86124	Irreversibility Analyses of Current Natural Refrigerants for a Sustainable Future	A. Kilicarslan
11:45- 12:00	36803	First and Second Law Analysis of Process Heaters	A. Sahin, S. Zubair

Session 2A-3: Energetic, Exergetic, Environmental and Sustainability Modeling (10:30 - 12:30) G02 – Hall A

Session Chair: A. Miguel

Time	TrackChair Number	Title of Paper	Authors
10:30 -10:45	97264	Efficiency Analysis of Hybrid PV/T Systems	A. Joshi, I. Dincer, B. Reddy
10:45-11:00	10949	Analysis of Organic Rankine Cycle with Internal Heat Exchanger Using Dry Hydrocarbons as Working Fluids	I. Aljundi
11:00-11:15	49611	Energetic and Exergetic Analysis of Ammonia-Water Vapor Absorption Refrigeration / Heat Pump System	T. Ibrahim
11:15- 11:30	83393	Energy and Exergy Analyses of an Industrial Wood Chips Drying Process	C. Coskun, M. Bayraktar, Z. Oktay, I. Dincer
11:30 -11:45	64430	Theoretical Assessment of a Heat Pump Using Natural Refrigerants with Other Refrigerants Based on Second Law Analysis	T. Ibrahim, M. Hassan
11:45- 12:00	19598	Energy and Exergy Efficiency Analyses of Geothermal Based Hydrogen Production Through High-Temperature Steam Electrolysis	M. Tolga Balta, I. Dincer, A. Hepbasli

Lunch (12:30 - 13:30)

Tuesday April 21, 2009

Keynote Speaker: Prof. V. Ismet Ugursal - Hall A (13:40-14:40)

Recent Developments in Green Building Technologies

Session 2B-1: Exergy Accounting and Analysis (14:45 - 16:45) G 41 - Senate Room

Session Chair: M. Abdelaal

Time	TrackChair Paper ID	Title of Paper	Authors
14:45-15:00	Invited	Exergy-based Ecological Indicators: a Necessary Tool for Resource Use Assessment Studies	E. Sciubba
15:00-15:15	85197	Exergy Analysis of Mixed Fluid Cascade Process Used in LNG Plant	M. Amidpour, A. Dolatshahi
15:15-15:30	23463	Exergetic Simulation of Coupling MED Desalination with PWR Power Plant	K. Ansari, H. Sayyaadi, M. Amidpour
15:30- 15:45	97821	Efficiency Dependence on Fuel in the Brayton Cycle	A. Jimenez, C. Gonzalez, R. Nieto, I. Lopez

Session 2B-2: Energy Conservation and Analysis (14:45 - 16:45) G 42 - Hall B

Session Chair: N. Darwish

Time	TrackChair Paper ID	Title of Paper	Authors
14:45-15:00	69849	Energy Analysis of Alternative Means of Removing Non-Condensable Gases from Single Flash Geothermal Power Plants	N.Y. Ozcan, G. Gokcen
15:00-15:15	84793	Exhaust Gas Emission Reduction Potential Using Waste Heat Recovery System on a Turbocharged Diesel Engine Ggenerator	A. Maina, M. Mbarawa
15:15-15:30	23591	Energy Conservation Through Sunrays Reflecting Coating On Buildings	I. Benko
15:30- 15:45	96083	Optimal Evaporating Temperature for Working Fluids in Rankine Heat Engines	B. Tchanche, G. Papadakis, G. Lambrinos, A. Frangoudakis
14:45-15:00	11338	Energy Efficiency Optimization of Conical Micro-Diffusers and Micro-Nozzles Using Entropy Generation	R. Ben-Mansour, A. Sahin

Tuesday April 21, 2009

Session 2B-3: Combustion Technology (14:45 - 16:45) G02 - Hall A

Session Chair: M. Ilbas

Time	TrackChair Paper ID	Title of Paper	Authors
14:45-15:00	66411	A Dump combustor Three Dimensional Confined Flow Velocity-Field Reconstruction Using Neural Network	S. Ahmed, H. El Kadi
15:00-15:15	24012	Effects of Spark Locations on the Performance Parameters of a Twin-Spark SI Engine	I. Altin, A. Bilgin, I. Sezer
15:15-15:30	97778	Experimental and Theoretical Investigation of the Engine Cycle and Performance Parameters in an Indirect Injection Diesel Engine	Z. Sahin, O. Durgun, C. Bayram
15:30- 15:45	80919	Experimental Characterization of Hydrogen-Methane Blending Fuel Combustion in a Model Combustor	M. Ilbas, I. Yilmaz
15:45-16:00	20962	Kinetic Study on the Transient Behavior of Methane Thermal Decomposition for Hydrogen Production	M. Sinaki, E. Matida, F. Hamdullahpur
16:00-16:15	12924	Multiscale Modeling of NOx Emission in Steam Crackers Industrial Burners	Gh. Salehi, M. Bidgoli, S. Danaloo
16:15-16:30	49121	Numerical Investigation of the Effects of Injection Parameters on Performance and Exhaust Emissions in a DI Diesel Engine	Z. Sahin, O. Durgun
16:30-16:45	24372	Investigation On NOX Reduction 2D Modeling Electric Arc Furnace (EAF)	S. Hashemi-Marghzar, M. Gord, A. Ershadi

General Meeting (17:00-18:00)

Gala Dinner – Radisson SAS Resort- Sharjah - 20:00

Wednesday April 22, 2009

Keynote Speaker: Prof. Yunus Cengel - Hall A (9:00-10:00)

The Second Law as the Second Dimension of Existence- Hall A

Coffee Break (10:00-10:25)

Session 3A-1: Heat and Mass Transfer (10:30 - 12:30)-G41 –Senate Room

Session Chair: A. Shah

Time	TrackChair Paper ID	Title of Paper	Authors
10:30 -10:45	60495	Heat Transfer and Friction Factor Correlations for Turbulent Pipe Flow by Multiple Swirl Generators	T. Bali, B. Sarac
10:45-11:00	73017	A Numerical Investigation of Heat Transfer Enhancement in a Wavy Tube	V. Ozceyhan, S. Gunes, E. Akcadirci
11:00-11:15	56128	Numerical Investigation of frost Formation on a Cold Plate in Turbulent Flow of Humid Air	O. Marandi, H. Tabrizi, E. Damangir
11:15- 11:30	89921	Symbolic Calculation for Free Convection in a Circular Cavity of High Prandtl Number	K. Mansour
11:30 -11:45	12519	3D Effect in a Backward-Facing Step Revisited	K. Mansour, S. Hosseinverdi, M. Hosseinali

Session 3A-2: Modeling of Energy Systems (10:30 - 12:30) G42 – Hall B

Session Chair: A. R. Al-Awaad

Time	TrackChair Paper ID	Title of Paper	Authors
10:30 -10:45	46313	Comparison between In-line and Staggered Arrangements in Heat Recovery Steam Generators	R. Bahrapoury, A. Behbahaninia, A. Shadaram, E. Taghdiri
10:45-11:00	42190	Impact of Ambient Air Conditions, Load Factor and Inter-Cooling on the Performance of a Combined-Cycle Cogeneration Plant	V. Yener, A. Durmayaz
11:00-11:15	41893	Solar Irradiation in Diffusely Enclosures with Partitions	A. Miguel, A. Silva
11:15- 11:30	38001	Performance Evaluation of an Ammonia Fuelled Portable SOFC System	S. Farhad, F. Hamdullahpur
11:30 -11:45	44543	Modeling of Heat-up and Start-up Stages of Direct Internal Reforming Planar Solid Oxide Fuel Cells	C. Colpan, F. Hamdullahpur, I. Dincer

Wednesday April 22, 2009

Session 3A-3: Air Conditioning Systems (10:30 - 12:30) G02 - Hall A

Session Chair: D. Abouelnasr

Time	TrackChair Number	Title of Paper	Authors
10:30 -10:45	40980	Thermal Performance of a Hybrid Desiccant Air Conditioning System in Hot-Humid Climates	M .Fatouh, T. Ibrahim, A. Mostafa
10:45-11:00	98405	A Review on Use of Adsorption Refrigeration Systems in Motor Vehicles	D. Esen, M. Arici, M. Altinay, T. Tosunoglu
11:00-11:15	62865	Thermoeconomic Optimization of a Single Effect H ₂ O/LiBr Absorption Chiller System Using Evolutionary Programming	R. Misra, P. Sahoo
11:15- 11:30	80784	A Feasibility Study to use Solar Cooling System in one of the typical Schools in Sultanate of Oman	A. Al Alawi, M. Ramaswamy, F. Aljahwari , K Al Jabri

Lunch (12:30 – 13:45)

Keynote Speaker: Prof. Enrico Sciubba - Hall A (14:00-15:00)

Exergy-Based Ecological Indicators: A Necessary Tool for Resource Use Assessment Studies

Session 3B-1: Heat and Mass Transfer (15:15 - 17:00) G41 – Senate Room

Session Chair: E. Wahba

Time	TrackChair Paper ID	Title of Paper	Authors
15:15-15:45	26315	Fluid Flow and Heat Transfer Analysis of One, Two and Four Sided Lid Driven Square Cavities with Differentially Heated Vertical Walls	E. Wahba, M. Gadalla
15:45-16:00	35645	Two-Phase Evaporative Heat Transfer Coefficient of CO ₂ as Refrigerant under Forced Flow Conditions in Small and Large Tubes	M. Hassan, T. Ibrahim
16:00 –16:15	10785	CFD Modeling of Heat and Mass Transfer in a Fluidized Bed Dryer	Sh. Hashemi-Marghzar, M. Gord, P Farrokhfar
16:15 –16:30	48580	Symbolic Calculation for Free Convection for Porous Material of Constant Heat Flux in a Circular Cavity	K. Mansour
16:30 –16:45	75745	Laminar Flow Through Heated Horizontal Pipe Revisited	K. Mansour

Wednesday April 22, 2009

Session 3B-2: Refrigeration and Heat Pump Systems 15:15 - 17:00) G42 - Hall B

Session Chair: A. Behbahaninia

Time	TrackChair Paper ID	Title of Paper	Authors
15:15-15:45	28142	Cost and Environmental Assessments of a Heat Pump Assisted Geothermal District Heating System	Z. Oktay, C. Coskun, K. Altinkaya, I. Dincer
15:45-16:00	53198	Irreversibility Analyses of Current Natural Refrigerants for a Sustainable Future	A .Kilicarslan
16:00 -16:15	68051	Use of The Equation of State of Peng-Robinson for The Research of the Thermophysical Properties of the New Refrigerants	K. Yacine, H. Kheiredinne, K. Abdenacer, B. Saber
16:15 -16:30	53410	Experimental Performance of an Automobile air Conditioning System with a Fixed Capacity Compressor Using Orifice Tube and Thermostatic Expansion Valve	A. Alkan, M. Hosoz
16:30 -16:45	96370	Exergy and Energy Comparison of Half-Effect and Single Effect Absorption Chillers	R. Gomri

Session 3B-3: Energetic, Exergetic, Environmental and Sustainability Modeling (15:15 - 17:00) G02 - Hall A

Session Chair: D. Chuks

Time	TrackChair Paper ID	Title of Paper	Authors
15:15-15:45	51272	Energy-Exergy Analysis and Carbon Emission of Nigerian Cement Manufacturing Industry	C. Diji , R. Fagbenle
15:45-16:00	64451	Fuel Cell Energy Generation and Recovery Cycle Analysis for Residential Application	E. Baniasadi, A. Alemrajabi
16:00 -16:15	55288	Investigation of Oil spills from Tanker Unloading in the Trabzon Terminal	E. Kose, E. Basar, O. Ugurlu
16:15 -16:30	11593	The Application of Exergy Analysis on a Shower Cooling Tower	T. Muangnoi, W. Asvapoositkul
16:30 -16:45	54530	Exergy Based-Environmental Parameters of A PEMFC	A. Midilli, I. Dincer

Thursday April 23, 2009

Coffee Break (9:00-9:30)

Session 4A-1: Desalination Technologies (9:45 - 11:15) G41 – Senate Room

Session Chair: Taleb Ibrahim

Time	TrackChair Paper ID	Title of Paper	Authors
9:45- 10:00	18443	Presentation Of The Performances Of Desalination Plant Of Seawater By Reverse Osmosis	D. Abdessemed, S. Hamouni, G. Nezzal
10:00- 10:15	72300	Mathematical Modeling of a Solar Desalination System Based on Basin-Type Still	M. Assari, H. Tabrizi, M. Zadeh
10:15-10:30	63281	Availability Modeling of a Reverse Osmosis Plant by the Reliability Bloc Diagram Method	K. Bourouni

Session 4A-2: Thermal Systems and Applications (9:45 - 11:15) G42- Hall B

Session Chair: A. Durmayaz

Time	TrackChair Paper ID	Title of Paper	Authors
9:45- 10:00	45565	An Experimental and Numerical Investigation of Thermal Stratification in a Hot Water Storage Tank	N. Altuntop, V. Ozceyhan, S. Gunes, Y. Tekin
10:00- 10:15	10320	Application of a Swirling Two-Phase Jet Pump to Improve Power Generation Efficiency	S. Farshchian, A. Mohamad
10:15-10:30	54850	Two Dimensional Numerical Modeling of a Packed Bed Cold Thermal Energy Storage System	H. Abdi, J. Gu, I. Dincer
10:30 -10:45	36124	Improving of Vortex Tube Performance in Low and High Pressure Condition	Sh. Hashemi-Marghzar, M. Gord
10:45- 11:00	62678	PCM Based-Heat Sink for Transient Thermal Management of Three Discrete Protruding Heat Sources	M. Faraji, H. El Qarnia

Session 4A-3: Thermodynamics Optimization (9:45 - 11:15) G-2 – Hall A

Session Chair: S. Poorani

Time	TrackChair Number	Title of Paper	Authors
9:45- 10:00	33338	Thermoeconomic Optimization of Recuperated Gas Turbines	E. Taghdiri, A. Behbahaninia, A. Azarmeh
10:00- 10:15	49792	Thermoeconomic Optimization and Exergy Analysis of a Vapour Compression Refrigeration Cycle	A. Behbahaninia, M. Mohammadi, Majid Amidpour
10:15-10:30	61890	Performance Optimization of a Gas-Cooled-Reactor Nuclear Power plant with Finite-Rate Heat Transfer	A. Durmayaz, O. Sogut, G. Mollaoglu, M. Aydin
10:30 -10:45	72966	Thermoeconomic Optimization and Design of Combined Cooling, Heating and Power System (CCHP) for Civil Sector	S. Alavijeh, A. Behbahaninia, M. Amidpour
10:45- 11:00	82622	Integration of GA Thermoeconomic Optimization Procedure with a Power Plant Computer Simulator	M. Manesh

Closing Ceremony - Hall A (11:30-12:30)

Open Poster Session

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Main Building Rotunda

TrackChair Number	Title of Paper	Authors
63268	Exergy Aanalysis of Biogas Production from a Municipal Solid Waste Landfill	C. Koroneos, E Nanaki, G Xydis
15116	Energy and Exergy Analysis of District Heating System	K. Comakli, B. Yuksel
11283	Sustainable Development in the Energy Sector - Dead Cattle Organs in Producing Biogas, a renewable Solution to the Energy Problem in Developing Countries	A. Jamil, S. Jamil
14654	A theoretical and Experimental Analysis of a Plant Operating as Water Chiller and Heat Pump	C .Renno, C. Aprea
10763	Thermodynamic Optimization of a Pasteurizer	C .Renno, C. Aprea
32949	Treatment by Physical Chemistry and Nanofiltration for Lakes Water	R. Maachi
81180	A New Reliable Minimal Volume/Weight Environmental Friendly Power Unit Design Using Microchannel Vaporizer Fuel Cell Processors, Slice Hulls and CFD based Hull Optimization For Super And Mega Yachts	A. Hassan, G. Fath-Allah, J. Mikhael