



RYERSON UNIVERSITY

The Third International Conference
on
**Thermal Engineering: Theory
and Applications**

May 21 – 23, 2007, Le Royal Hotel, Amman, Jordan



Scientific Program



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Ryerson University, Toronto, Canada

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Sunday, May 20, 2007

7:00-9:00 pm

Early Registration



Day 1: Monday, May 21, 2007

7:30-9:00 am	Registration		
9:30-10:30 am	Conference Opening Ceremony		
10:30-11:30 am	Exhibition Opening Ceremony and Coffee Break		
11:30 am-1:10 pm	JERASIA BALL ROOM CFD: Part I Chairman: C. Golia Co-Chairman: G. Accary	HAMURABI-I BALL ROOM Fluid Dynamics: Part I Chairman: W. Tayfour Co-Chairman: O.A. El-Samni	HAMURABI-II BALL ROOM Combustion: Part I Chairman: M.A. Hamdan Co-Chairman: A. Al-Sarkhi
11:30 am	Khoukhi Maatouk Stack Pressure and Airflow Modeling in Tall Residential Building during the Cold Period	O.A. El-Samni On Three-Dimensionality of Turbulent Buoyant Channel Flow	Aswin Kannan E. Natarajan Adiabatic Flame Temperature and it's Influence on the Process of Cooking
11:50 am	M.H. AlHoushan N. Chandra Shekhar K. Narayana Rao Mathematical Analysis of Mufflers Noise Using CFD	S. Ghasemloo M. Mani M. Malekzade Dirin Viscous Shock-Layer Solutions around Hypersonic Bodies for Low and High Altitude Flow	M.A. Hamdan A.M. Al-Qaq The Prediction of Heat Transfer Coefficient in Circulating Fluidized Bed Combustors
12:10 pm	Gilbert Accary Sofiane Meradji Dominique Morvan Dominique Fougere Towards a numerical benchmark for 3D mixed-convection low Mach number flows in a rectangular channel heated from below	Basim O. Hasan Prediction of Mass Transfer Coefficient under Annular Two Phase Flow Conditions using Eddy Diffusivity Concept	Ismael Al-Hinti Bilal Akash Eiyad Abu-Nada AbdulSalam Al-Sarkhi Performance Analysis of Air-Standard Diesel Cycle Using an Alternative Irreversible Heat Transfer Approach
12:30 pm	Carmine Golia Bernardo Buonomo Antonio Viviani A corrected Vortex Blob Method for 3D Thermal Buoyant Flows	Negar Khoshnevis Gargar M. Reza Kamali Roosbeh Khosrokhava Modeling of Heat- and Fluid-Flow in a Fractured Block (Comparison between Variable Width Fracture and Constant Width Fracture)	B. Jayashankara V. Ganesan Effect of Engine Speed and Intake Pressure on Flow Structure Inside the Cylinder of a DI Diesel Engine
12:50 pm	Rafat Al-Waked Masud Behnia Wet Cooling Towers, Power Plant Structures and Crosswinds – CFD analysis	Antonio Viviani Andrew Zuev Deformation and Rupture of a Horizontal Liquid Layer by Thermal and Solutal Marangoni Flows	J. David Rathnaraj T. Michael N. Kumar Studies on Incylinder Flows in Di Diesel Engine Using CFD
1:10-2:20 pm	Lunch		

Day 1: Monday, May 21, 2007/ Cont'd

2:20 pm- 4:00 pm	JERASIA BALL ROOM CFD : Part II	HAMURABI-I BALL ROOM Heat Transfer: Part I	HAMURABI-II BALL ROOM Combustion: Part II
	Chairman: A. Al-Salaymeh Co-Chairman: R. Dhib	Chairman: D. R. Rousse Co-Chairman: Gerd Walter	Chairman: A.R. Masri Co-Chairman: A. A. Salem
2:20	M. H. AlHoushan K. Narayana Rao Gas-Solid Flow Modelling in a 3-D Riser Section of a Circulating Fluidized-Bed	Marcel Popa Glad Contiu Mircea Precup Contributions Along Heat Transfer in EDM	Asad A. Salem Analysis of Isothermal and Reacting Flow in an Aircraft Gas Turbine Combustor
2:40	Jund-Chang Wang Sih-Li Chen Thermal Performance of Two-Phase Closed Thermosyphon Cooling System	Gerd Walter Lars Lorenz Friedherz Becker Convective Heat Transfer to Good Stacks by Superposed Flows	A.R. Masri S.S. Ibrahim Recent Progress in the Understanding of Premixed Flame Propagation Past Obstacles
3:00	A.F. Elsafty A.A. Ali A.N. Nasr Study of Air Flow and Temperature Distribution in Ship's Crew Cabins	Daniel R. Rousse A Brief Review of the History of Radiative Transfer	V. Jyothishkumar V. Ganesan Reacting Flow Analysis Inside an Aero-Engine Annular Combustor with Conjugate Heat Transfer
3:20	M.I. Amayrah A. Al-Salaymeh M. Kilani A.T. Al-Halhouli Numerical Prediction of a Bi-Directional Micro Hot Wire Anemometer Using Three Parallel Wires	Mathieu Francoeur Daniel R. Rousse Unsteady Radiative Transfer in Participating Media: a Frequency-Based Numerical Approach	Nadir Yilmaz A. Burl Donaldson R. Edward Lucero Diffusion Flame Oscillations: Measurements and Correlations
3:40	H. Patel F. Ein-Mozaffari R. Dhib CFD Analysis of Thermal Styrene Polymerization	Z. Aouachria Heat and Mass Transfer Along of a Vertical Wall By Natural Convection in Porous Media	S.K. Mahla L.M. Das M.K.G. Babu Effect of Cooled EGR on Performance and Exhaust Emission Characteristics of Biodiesel Fueled Engine
4:00-4:30 pm	Coffee Break		

Day 1: Monday, May 21, 2007/ Cont'd

4:30 am-6:30 pm	JERASIA BALL ROOM HVAC: Part I	HAMURABI-I BALL ROOM Combustion: Part III	HAMURABI-II BALL ROOM Renewable Energy: Part I
	Chairman: H. Abu-Mulaweh Co-Chairman: K. Ghali	Chairman: V. Ganesan Co-Chairman: I. Al-Hinti	Chairman: A. Badran Co-Chairman: A. Elsafty
4:30 pm	Hosni I. Abu-Mulaweh Development of Portable Air-Conditioning System Experimental Apparatus	T. Anand Kumar J. M. Mallikarjuna V. Ganesan Effect of Ignition Timing on Combustion in a Stratified Charge DISI Engine	A. F. Elsafty H. E. Fath A. A. Abdel Azim Experimental Investigation of a Tube-Type Solar Desalting Unit
4:50 pm	K. Ghali Energy Savings Potential of a Hybrid Desiccant Dehumidification Air Conditioning System in Beirut	P. Thiyagarajan V. Ganesan Effect of Van Design on the Performance of a Uniflow Cyclone	A. Badran M. Mustafa W. Dawood Z. Ghazzawi On the Measurement of Bond Conductance in Solar Collector Absorber Plate
5:10 pm	Essam E. Khalil Energy Efficient Air-Conditioned Buildings in Arab World: A Challenging Era	Benny Paul V. Ganesan Effect of Spiral Manifold Configuration on Swirl and Emissions in a DI Diesel Engine: A CFD Study	A. Mokhtari M. Yaghoubi P. Kanan A. Vadiee R. Hessami Thermal and Optical Study of Parabolic Trough Collectors of Shiraz Solar Power Plant
5:30 pm	Ramadas Narayanan Maya Pundoor Design of Heat Recovery System for a Split Air-Conditioner	M.C.A. Touabti A. Smati M. Guellal Counting of Gas and Calorific Invoicing By Dynamic Simulation	Veera G. Gude Nirmala Khandan Desalination using Low-Grade Thermal Energy
5:50 pm	Christopher Chin Kong Ming Kian Hin Mohd Azree Idris Zulkifli Ahmad Ban Kean Nam Review of Fog Inlet Air Cooling System Application for Gas Turbine in High Humidity Environment	F. Gharagheizi M. Bagheri M. Shariaty-Niasar A Simple QSPR Model for Prediction of Flash Point Temperature of Pure Organic Compounds	Sarayooth Vaivudh Heat Transfer of High Thermal Energy Storage with Heat Exchanger for Solar Trough Power Plant
6:10 pm	Rabah Gomri Riad Hakimi Modeling of Double Effect Vapor Absorption Cooler System Based on the Second Law of Thermodynamics	Lyes Bennamoun Azeddine Belhamri Study of Coupled Transfers in a Porous Media: Application to Deep Bed Drying	Clemens Pollerberg Ahmed Hamza H. Ali Christian Dotsch Experimental Study on Performance of Solar Driven Steam Jet Ejector Chiller
8:30 pm	Dinner at the Movenpick-Dead Sea		

Day 2: Tuesday, May 22, 2007

8:00-9:00 am	Registration		
9:00-9:45 am	Enhanced Heat Transfer and Change of Type of Vorticity in Tube Flow of Constitutively Non-linear Fluids		
	Keynote Speaker: Prof. Denis Signer		Chair: Prof. Ziad Saghir
9:45-10:30 am	Nanomagnetics in Micro Bio-Diagnostics		
	Keynote Speaker: Prof. Yousef Haik		Chair: Prof. Bilal Akash
10:30-11:00	Coffee Break		
11:00 am-1:00 pm	JERASIA BALL ROOM CFD: Part III	HAMURABI-I BALL ROOM Thermodynamics: Part I	HAMURABI-II BALL ROOM Heat Transfer: Part II
	Chairman: O. Badran Co-Chairman: K. Osman	Chairman: E. Abu-Nada Co-Chairman: A. H. Ali	Chairman: M. Al-Nimri Co-Chairman: I. Abu-Alshaikh
11:00 am	Jamaluddin Md. Sheriff Kahar Osman Salahuddin Mohamed Numerical Analysis On Performance of Spiral Coil Heat Exchanger	E. Abu-Nada Investigation of Entropy Generation Over a Backward Facing Step Under Bleeding Conditions	Abdallah Zerroug Porous Medium Thermal Conductivity Theory
11:20 am	Ahmad Awad Omar Badran Ame Holdf Raj Calay The Effect of Ventilation Aperture Location of Input airflow rates on Stratified Flow	Navin Fogla K. Pitchandi E. Natrajan Thermodynamic Optimization of a Heat Pipe by Minimizing Entropy Generation	Ibrahim Abu-Alshaikh Nabil Beithou A Common Formulation of Axisymmetric Thermal and Mechanical Stresses in Functionally Graded Cylinders and Spheres
11:40 am	Roslinda Nazar Anuar Ishak Ioan Pop Magnetohydrodynamic (MHD) Flow and Heat Transfer Due to a Stretching Cylinder	Ahmed Hamza H. Ali Ibrahim M. Ismail Effect of the Evaporator Airside Fouling on Performance of Unitary Air Conditioners and its Impact on Indoor Air Quality	H. Grissa, F. Askri M. Ben Salah S. Ben Nasrallah Radiative transfer in non homogeneous cylindrical media
12:00 noon	Maher A.R. S. Al-Baghdadi Haroun A.K. Al-Janabi Three-Dimensional, Multi-Phase Flow-, Computational Fluid Dynamics Model for Analysis of Transport Phenomena and Thermal Stresses in PEM Fuel Cells	Ahmed Hamza H. Ali M.G. Morsy I.S. Taha M. Hamza Experimental Investigation of Comfort Sensation and Performance of Radiant Heating Panel Compared with Conventional Oil Heater	Ahmad Zahran bin Md Khudzari Kahar Osman Mohd Zamani Ngali Solution of Navier Stokes Equation using Splitting Method with Stretched Coordinate
12:20 pm	Syed M. Al Khaireed Kahar Osman Mohd Kamal Ariffin Md Yusoff Senawi Dynamic Modeling of Stratification for Chilled Water Storage Tank	V. Gadhameshetty N. Nirmala khandan Exergy Analysis of Air-Cooled Condenser Performance in Combined Cycle Power Plants	K. Mansouri D. Sadaoui A. Djerrada A New Solution for the Periodic Graetz Problem
12:40 pm	Ashraf Balabel Abdelkarim Hegab Numerical Modeling of Interfacial Instability in Two-Phase Flow Considering Buoyancy and Capillary Phenomena	M. Ahmadzadeh M. Gazikhani Energy and Exergy Analysis of Irreversibilities in Components and Boiler of an Experimental Power Plant	A.M. Ben-Arous A.A. Busedra Mixed Convection in Horizontal Internally Finned Semicircular Ducts
1:00-2:00 pm	Lunch		

Day 2: Tuesday, May 22, 2007/ Cont'd

2:00 - 4:00 pm	JERASIA BALL ROOM Combustion: Part III	HAMURABI-I BALL ROOM Heat Transfer: Part III	HAMURABI-II BALL ROOM Nano-Technology: Part I
	Chairman: A. Hegab Co-Chairman: B. Rismanchi	Chairman: N. Arifin Co-Chairman: A. Campo	Chairman: Y. Haik Co-Chairman: H. Al-Mattarneh
2:00 pm	Behzad Rismanchi Mohammad Hadi Akbari Ali Akbar Golhnheshan Performance Prediction of Proton Exchange Membrane Fuel Cell Using a 3D Model	R.S. Maurya S.K. Das T. Sundararajan Simulation of Laminar Falling Film's Hydrodynamic Developing Region under the Influence of Surface Tension	Yusef Haik Sridhar Kanuri Magnetic Separation System for the Removal of Red Blood Cells
2:20 pm	Wendy Hardyono Kurniawan Shahrir Abdullah Kamaruzzaman Sopian Combustion Analysis and Its Modeling in a Compressed Natural Gas Direct Injection Engine	Norihan M. Arifin Ioan Pop Stability of Marangoni Convection in a Composite Porous-Fluid with a Boundary Slab of Finite Conductivity	Yusef Haik Jason Hendrix Mohammad Kilani Paul Galambos Surface Micromachined Crescent Micropump
2:40 pm	M.M. El-Awad K.N. Abdalla S.A. Abdalla A Study of GasTurbine Power Augmentation by Water & Steam Injection	Azeddine Belhamri Karima Rebahi Ali Chikhi Lyes Bennamoun Influence of the Saturation Rate on the Heat Transfer in Building Materials	B. Mansouri M. Shariaty-Niassar Energy Conservation through Better Fuel Economy in Vehicles by Using Detergent Additive Containing Nanoparticles
3:00 pm	S. Murugan M.C.Ramaswamy G. Nagarajan Performance and Emissions of a Diesel Engine Running with Tyre Pyrolysis Oil Diesel Blends at Different Injection Pressures	Antonio Campo Sreedhar Manchu Heat/Fluid Flow Characteristics of Binary Gas Mixtures Formed with Helium Across Parallel-Plate Channels	Munther Issa Kandah Jean-Luc Meunier Production of Carbon Nanotubes on Different Monel Substrates
3:20 pm	Abdelkarim Hegab Ashraf Balabel Effect of Ammonium Perchlorate Grain Sizes on the Combustion of Solid Rocket Propellant	N. Guerroudj H. Kahalerras Analysis of Fluid Flow and Heat Transfer in a Channel with Porous Blocks of Various Shapes	H. M. A. Al-Mattarneh M. Essa Ahmad R. M. A. Ismail M. F. M. Zain M. R. Taha Effective Dielectric Mixture Model for Characterization of Diesel Contaminated Soil
3:40 pm	R.T. Naik M.K.G. Babu L.M. Das R.T. Babu Naik Emission Characteristics of CNG-Hydrogen Operated Spark Ignition Engine	A. Sartipi, A. Laouadi, R. Dhib, D. Naylor Laminar Natural Convection in Concentric Domed Skylight Cavities Heated from Inside	Al-Falahi Amir Yusoff M. Z Yusaf T Numerical & Experimental Study to Evaluate the Effects Shock Tube Diaphragm Pressure Ratio on Shock Wave Properties
4:00-4:30 pm	Coffee Break		

Day 2: Tuesday, May 22, 2007/ Cont'd

4:30 - 6:30 pm	JERASIA BALL ROOM Combustion: Part IV	HAMURABI-I BALL ROOM Energy and Systems	HAMURABI-II BALL ROOM Processing
	Chairman: J. Nazzal Co-Chairman: A. Donaldson	Chairman: M. Mohsen Co-Chairman: I. Al-Hinti	Chairman: A. Al-Rawajfeh Co-Chairman: S. Abdallah
4:30 pm	Jamal M. Nazzal Pyrolysis of Jordanian oil shale: the influence of grain size on the products yield and shale oil composition	Salman Al-Shobaki Mousa Mohsen Modeling and Forecasting of Electrical Power Demands for Capacity Planning	Salem M. Benshebil Abdulbaset M. Alemam Predication of Optimum Operating Conditions Based on Experimental Data for Thermoplastic Products (High Density Polyethylene) in Injection Moulding
4:50 pm	A. Burl Donaldson Nadir Yilmaz R. Edward Lucero Heat Exchange between a Thermocouple and an Acoustically Forced Diffusion Flame	R. Hariti A. Benbrik D. Lemonnier Study of the LNG Evaporation Phenomenon in the Aboveground Storage Tank	A. Herz M.R. Malayeri H. Muller-Steinhagen Fouling of Roughened Stainless Steel Surfaces During Convective Heat Transfer to Aqueous Solutions
5:10 pm	Tariq Shamim The Effect of Oxygen Storage Capacity on the Dynamic Characteristics of an Automotive Catalytic Converter	A. Al-Ghandoor I. Al-Hinti B. Akash Potential Electrical Energy Saving Opportunities in the Jordanian Plastics Industry	Aiman Eid Al-Rawajfeh Simultaneous Desorption-Crystallization of CO ₂ -CaCO ₃ in MSF Distillers
5:30 pm	B. Sachuthananthan N.M. Sudharsan K. Jeyachandran The status of Experimental and Numerical Investigations on Homogeneous Charge Compression Ignition (HCCI) Engine – An Overview	Yahya Ali Marina Mustafa Shireen Al-Mashaqbah Kholoud Mashal Mousa Mohsen Potential of Energy Savings in the Hotel Sector in Jordan	H. M. A. Al-Mattarneh B. S. Muhammad W. K. Yin A. H. Hassan Md. H. Hassan Development of Lightweight Aggregate Concrete Using Local Palm Oil Clinker Industrial Waste
5:50 pm	A. Ouadha M. En-nacer O. Imine K. Bellil M.R. Mokarem Modelling of Steam Turbine Cycles	Aiman Eid Al-Rawajfeh Rustum Mamlook Fuzzy Set Implementation for Controlling and Evaluation of Factors Affecting Melting, Crystallinity and Interaction in Polymer Blends	K. Kadirgama K.A. Abou-El-Hossein B. Mohammad H. Habeeb Effect of Milling Parameters Towards Temperature and Heat Distribution in End-Milling
6:10 pm	M. Al-Hamad, Jamal Ghorieshi Velocity Measurements in a Ceramic Candle Filter- CFD Study	A.M. Mahalle B.N. Jajoo Advanced Heat Removal System with Porous Media for Electronic Devices	Salah Abdallah Riyad Abu-Malouh Heating Systems with PLC and Frequency Control
5:30 pm	Trip and Dinner at Um Quais		

Day 3: Wednesday, May 23, 2007

8:00-9:00 am Registration			
9:00-9:45 am	Concentrated Solar Thermal Power for Electricity, Water & Food Supply in Desert Regions Keynote Speaker: Prof. Nasir El-Bassam Chair: Prof. Mousa Mohsen		
9:45-10:30 am	Major Advances in Fuel-Cell Technology Keynote Speaker: Prof. Yousef Najjar Chair: Prof. Ali Badran		
10:30-11:00 Coffee Break			
11:00 am-1:00 pm	JERASIA BALL ROOM Environmental Issues Chairman: M. Popa Co-Chairman: K. Mashal	HAMURABI-I BALL ROOM Renewable Energy: Part II Chairman: M.H. Abderrazzaq Co-Chairman: M.S. Ashhab	HAMURABI-II BALL ROOM Heat Transfer: Part II Chairman: A. Al-Sarkhi Co-Chairman: Afif Hasan
11:00 am	M.A. Helal Physico-Mechanical Properties of Normal and Self-Compacting Concrete Loaded Columns Subjected to Fire	M. Yaghoubi A. Mokhtari R. Hesami Thermo-Economic Analysis of Shiraz Solar Thermal Power Plant	Ali M. Jawarneh Abdelsalam Al-Sarkhi Design and Simulation of Vortex Cylinder Separator
11:20 am	Dana Sirbu Marcel Sabin Popa Monica Popa Characteristics of Lead Particles in Relation with Human Working Exposure	M.H. Abderrazzaq O. AIOquili Evaluation and Assessment of Jordanian Wind Farm Upgrading	Hani Sait Analysis of Micro Heat Pipe with Rectangular Grooves
11:40 am	Kholoud Mashal Mohammed Al-Qinna Yahya Ali Spatial Distribution of Lead and Zinc in Urban Soils and Street Dusts Samples in Al-Hashimeyeh Municipality: Controlling Factors and Environmental Implications	Abderrahmane Halis Khaled Zehar Study of Magnetic Field Coils for Plasma Arc Heaters	Taoufik Mnasri Rachid Ben Younes Maher Raddaoui Salem Elouragini Convective Heat-Transfer Coefficient in a Buried Bitubular Exchanger – Use of Green's Functions Theory
12:00 noon	Elsafty A. F Fath H. E. Amer A. M Mathematical Model Development for a New Solar Desalination System [SDS]	M.S. Ashhab Thermal Photovoltaic Solar Integrated System Analysis Using Neural Networks	C. Bougriou R. Le Gall J.C. Solecki R. Bessaih Measurement of the Temperature Distribution on a Circular Fin by Infrared Thermography Technique: Influence of the Bundle Geometry
12:20 pm	U.H. Ugwu Design and Fabrication of a Thermal Conductivity Measuring Equipment	Hussain Alrobaei Performance and Effectiveness of Solar PV/T Systems	Atieh Najjar Afif Hasan Modeling of Greenhouse with PCM Energy Storage
12:40 pm	Abdulrahim A. Al-Zahrani Mohammed A. Daous Effect of Gas Superficial Velocity and Solid Concentration on the Gas Holdup and Gas Phase Heat and Mass Transfer	Mohd Yusof Othman Baharudin Yatim Kamaruzzaman Sopian M.N. Abu-Bakar Studies of a Photovoltaic-Thermal Solar Drying System for Rural Applications	A. Boutout R. Bessaih S. Benissaad The Onset of Hydrodynamic and Thermal Instability During the Cooling of Electronic Component by Natural Convection
1:00-2:00 pm Lunch			

Day 3: Wednesday, May 23, 2007/ Cont'd

2:00 - 4:00 pm	JERASIA BALL ROOM Renewable Energy: Part II	HAMURABI-I BALL ROOM Processing	HAMURABI-II BALL ROOM Heat Transfer: Part V
	Chairman: A. Abu-Ddyyeh Co-Chairman: O. Aloquili	Chairman: Dong-Ying Ju Co-Chairman: A. Hijazi	Chairman: S. Nijmeh Co-Chairman: A. Al-Ghamdi
2:00 pm	Ayoub Abu-Ddyyeh Thermal comfort Induced by Trombe Walls	Saud Aldajah Thermal Residual Stress Development in Laser Glazed Carbon Steel	A.S. Al-Ghamdi Khairul M. Alam Effectiveness Evaluation of Air-to-Air Rotary Heat Exchanger Utilizing Porous Matrix
2:20 am	M.H. Abderrazzaq O. Aloquili Q. Al Zou'bi Evaluating the Impact of Grid Connection on the Wind Turbine Performance for Hofa Farm Scheme in Jordan	Xiao-Dong Hu Dong-Ying Ju Stresses Analysis in Twin-roll Casting Process of Mg Alloy	M.R. Arab E. Semma B. Pateyron M. El Ganaoui Determination of Physical Properties of Porous Materials by a Lattice Boltzmann Approach
2:40 pm	Adel M. Abdel Dayem M. Fatoh Multi-effect Humidification-dehumidification Solar Water Desalination System: A Comparative Experimental and Numerical Study	Anisur Rahman Reginald Eze Sunil Kumar A Novel Optical Thermal Deformation Sensor Based on Whispering Gallery Mode Resonator	N. Gilani M. Shariaty-Niassar A Comparative Survey of Indirect Evaporative Coolers for Desirable Indoor Air Condition
3:00 pm	S. Bougoul S. Zeroual T. Boulard A. Azil Simulation of the Airflow and Temperature Distribution in Heated Greenhouses	Shadia J. Ikhmayies Riyad N. Ahmad-Bitar Effect of the Substrate Temperature on the Electrical and Structural Properties of Spray-Deposited SnO ₂ :F Thin Films	U.S. Wankhede Analysis of Fluidied Bed Gas Solid Suspension
3:20 pm	Khaled Zehar Samir Sayah Optimal Power Flow with Environmental Constraint Using a Fast Successive Linear Programming Algorithm: Application to the Algerian Power System	Marcel Sabin Popa Thermal Behaviour as Part of Unitary Concept for Testing New Types of Machine Tools	Shahram Karami Ghalamali Atefi Analytical Solution to One-Dimensional Temperature Field within Solid Cylinder under Periodic Boundary Condition using Fourier Sine Series
3:40 pm	Roshdy A. AbdelRassoul Rania M. Mohamed EISayed M. A.Rassoul Nair Bakr Deposition & Characterization of Vacuum-Evaporated II-VI Semiconductor Thin Films for Photovoltaic Application	D. Omeiri D.E. Djafri Transport Coefficients in Polyatomic Gases at High Enthalpy: Validation by Direct Simulation Monte Carlo	Ali Boukhari Rachid Bessaih Magnetohydrodynamics Stability in Mixed Convection Flow in a Cylindrical Enclosure
4:00-4:30 pm	Coffee Break		

Day 3: Wednesday, May 23, 2007/ Cont'd

4:30 - 6:00 pm	JERASIA BALL ROOM Renewable Energy	HAMURABI-I BALL ROOM Energy and Systems	HAMURABI-II BALL ROOM Processing
	Chairman: I. Etier Co-Chairman: Z. Ouennoughi	Chairman: A. Mellit Co-Chairman: Z. Aouachria	Chairman: Q. Slaiman Co-Chairman: J. Hussein
4:30 pm	Issa Etier Mohammad Ababneh Photovoltaic system as an alternative source of electricity generation: A case study in Hashemite University/Jordan	Adel Mellit ANN-Based Wavelet Analysis for Prediction Electrical Signal from Phtovoltaic Power Supply System	Jamal M. Hussein Xuejun (James) Ren Najim Abdl Ameer Saad Modeling and Experimental Investigation of the Forming Temperature Influence on the Composite Sheet Rubber Pad Forming
4:50 pm	Krishna Shrivastava A.M. Mahelle S.M. Hundiwala A Systematic Research on Performance Analysis and Characteristics of Solar Cooker with Honeycomb Structure	Adel Mellit ANFIS-Based Genetic Algorithm for Predicting the Optimal Sizing Coefficient of Photovoltaic Supply (PVS) Systems	Qasim J. M. Slaiman Basim O. Hasan The Effect of Temperature and Hydrodynamics on the Corrosion Rate under Turbulent Flow Conditions Using Electrochemical Technique
5:10 pm	M.S. Tandale T.N. Khandekar Performance Evaluation of Low Cost Domestic Parabolic Solar Cooker	Z. Aouachria Study of Aerodynamical and Mechanical Behaviour of the Savonius Rotor	Younes Benarioua Annealing Study of Chromium Films Deposited by Electrolytical Method on Cemented Steel Substrate
5:30 pm	Z. Ouennoughi S. Toumi Z. Djessas A. Ferhat Hamida Extraction of Solar Cell Device Parameters Using Vertical Optimization and Genetic Algorithm	Salah Larbi Mohamed T. Attouchi Massinissa Hamoudi A Sensitivity Study Approach on Heat Transfer in the Internal Combustion Engine	A. Sabeur-Bendehina O. Imine L. Adjlout B. Imine Effect of the Hot Surface Geometry on Laminar Natural Convection in Cubical Air Filled Enclosures
8:30 pm	Dinner at Kan Zamaan - Amman		