

Table of Contents
World Congress on Engineering 2008
WCE 2008

Preface.....	Xxviii
Committees.....	Xxix
Abstracts of Invited Lectures.....	Liii

VOLUME II

**The 2008 International Conference of Applied and
Engineering Mathematics**

Implicitly Defined High-Order Operator Splittings for Parabolic and Hyperbolic Variable-Coefficient PDE Using Modified Moments <i>James V. Lambers.....</i>	822
Modeling of Banking Profit via Return-on-Assets and Return-on-Equity <i>Prof. Mark A. Petersen, and Dr. Ilse Schoeman.....</i>	828
An Exact Algorithm for the Maximum Weight K3-free Subgraph Problem <i>Masayasu Fujiwara, Kazuaki Yamaguchi, and Sumio Masuda.....</i>	834
Orthogonal Rational Functions, Associated Rational Functions And Functions Of The Second Kind <i>Karl Deckers, and Adhemar Bultheel.....</i>	838
Numerical Solution Techniques for the Steady Incompressible Navier-Stokes Problem <i>M. ur Rehman, C. Vuik, and G. Segal.....</i>	844
Inverse Modelling for Estimation of Average Grain Size and Material Constants - An Optimization Approach <i>P. Kathirgamanathan, and T. Neitzert.....</i>	850
A Fixed Point Theorem on Four Self Maps Under Weakly Compatible <i>V. Srinivas, and R. Umamaheshwar Rao.....</i>	855
Solving the Multiresponse Problem in Taguchi Method by Aggressive Formulation in DEA <i>A. Al-Refaie, and M.H. Li.....</i>	859

Control Law for UNI-Axial Vehicle Using Lyapunov Analysis	
<i>Ahmed Farid, Tehseen Zia, Fahad Maqbool, Saad Razzaq, Fahad Shahbaz, and Kashif Irfan.</i>	865
Finite Transfer Method for the Problem of Spatially Curved Beams	
<i>Lazaro Gimena, Pedro Gonzaga, and Faustino N. Gimén.</i>	868
Strange Attractors in Simple Control Systems	
<i>Vasile Glavan, and Valeriu Gutu.</i>	874
Exact Weight Perfect Matching of Bipartite Graph is NP-Complete	
<i>Guohun Zhu, Xiangyu Luo, and Yuqing Miao.</i>	878
The Study on Road Accidents Forecasting Model Based on Multi-level Recursive Method	
<i>YU Ren-de, ZHANG Hong-bin, LIU Fang, and SHI Peng.</i>	881
Algorithms for Differential Equations with Oscillatory Solutions	
<i>Mohamed K. El Daou.</i>	888
Heuristic Methods for Parameter Estimation in a Smart Beam Structure	
<i>Jeffrey T. Libo-on, Jose Ernie C. Lope, and Ricardo C.H. del Rosario</i>	896
Vibration of the Euler-Bernoulli Beam with Allowance for Dampings	
<i>Leopold Herrmann.</i>	901
The Coupon Collector Problem in Statistical Quality Control	
<i>Tamar Gadrich, and Rachel Ravid.</i>	905
Control of Marangoni Convection in a Variable-Viscosity Fluid Layer with Deformable Surface	
<i>Seripah Awang Kechil, and Ishak Hashim.</i>	910
Baire's Theorem in Probabilistic Modular spaces	
<i>Kourosh Nourouzi.</i>	916
Transforming the Expression of the Integral of a Vector Field Curl over a Cylindrical Surface into Another Surface Integral without Differential Operators	
<i>Andrei Nicolaide.</i>	918
Common Fixed Point Theorems of Gregus Type in a Complete Metric Space	
<i>Johnon O. Olaleru.</i>	922
On Multidimensional Analog of Kendall-Takacs Equation and its Numerical Solution	
<i>Gh. Mishkoy.</i>	928
A Computational Approach to the Fredholm Integral Equation of the Second Kind	
<i>S. Rahbar, and E. Hashemizadeh.</i>	933

Transformation Methods for the Blasius Problem and its Recent Variants <i>Riccardo Fazio</i>	938
The Study of DEA Evaluating Model on Road Traffic Safety <i>YU Ren-de, ZHANG Hong-bin, SHI Peng, and LIU Fang</i>	944
Wide Band Noise as a Distributed Delay of White Noise <i>Agamirza Bashirov, Sevin Ugural, and Sinem Erturk</i>	952
Points of Intersection of Symmetrical Solutions of Reaction-Diffusion Processes <i>Panayiotis M. Vlamos</i>	955
Generalized Control Limits of George Obreja Type <i>Florin-Cristian Gheorghe, George Obreja, and Marin-Nicolae Popescu</i>	957
Lie Symmetry Methods in Finance – An Example of the Bond Pricing Equation <i>Joanna Goard</i>	960
Feller Properties on the Torus <i>Emil Popescu</i>	966
Different Kinds of Boundary Elements for Solving the Problem of the Compressible Fluid Flow around Bodies—a Comparison Study <i>Luminita Grecu, Gabriela Demian, and Mihai Demian</i>	972
An Improved Heaviside Approach to Partial Fraction Expansion and its Applications <i>Yiu-Kwong Man</i>	978
On Numerical Accuracy of Gauss-Chebyshev Integration Rules Using the Stochastic Arithmetic <i>Mohammad Ali Fariborzi Araghi</i>	981
Algorithm to Describe the Ideal Spur Gear Profile <i>O. Reyes, A. Rebolledo, and G. Sanchez</i>	985
The Inverse Eigenvalue Problem for Some Especial Kinds of Matrices <i>A. M. Nazari, and M. Alibakhshi</i>	992
Some Properties of Sign Regular Matrix in Neville Elimination Method <i>A. M. NAZARI, S. S. KHALILI, and M. S. HAGHIGHAT</i>	994
Functional Equations and Integral Equations in Spectral Domain for Scattering by Impedance Polygons <i>J. M. L. Bernard</i>	996
A New Analytical Integration Expression Applied To Quadrilateral Finite Elements <i>D. HAMADI, and A. ZATAR</i>	1000

On-Line Fast Algebraic Parameter and State Estimation for a DC Motor Applied to Adaptive Control	
<i>G. Mamani, J. Becedas, and V. Feliu-Batlle</i>	1006
Linear Combinations of Gaussians with a Single Variance are Dense in L2	
<i>Craig Calcaterra</i>	1013
Scaling and Spiral Equivalence from a Numerical Viewpoint	
<i>Riccardo Fazio, and Salvatore Iacono</i>	1015

The 2008 International Conference of Computational Statistics and Data Engineering

Tests of Fit for Normal Variance Inverse Gaussian Distributions	
<i>S. G. Meintanis</i>	1021
Capturing Extremes	
<i>Konstantinos Tolikas</i>	1027
The Taylor Effect of Asset Returns: Stylized Fact or Finite-Sample Behaviour?	
<i>Violetta Dalla</i>	1032
Singular Spectrum Analysis Based on the Minimum Variance Estimator	
<i>Hossein Hassani, and Anatoly Zhigljavsky</i>	1040
Using Mixed Poisson Models in Patient Recruitment in Multicentre Clinical Trials	
<i>Vladimir V. Anisimov</i>	1046
Modeling Recurrent Events in Panel Data Using Mixed Poisson Models	
<i>V. Savani, and A. Zhigljavsky</i>	1050
Modeling Health Care Events Using Mixed Poisson Models	
<i>A. Woehl</i>	1056
Mixed Poisson Processes with Panel Flow	
<i>Anatoly Zhigljavsky, and Vipal Savani</i>	1059
A Signal-to-Noise Ratio Estimator for Generalized Linear Model Systems	
<i>Gabriela Czanner, Sridevi V. Sarma, Uri T. Eden, and Emery N. Brown</i>	1063
Effective Linear Discriminant Analysis for High Dimensional, Low Sample Size Data	
<i>Zhihua Qiao, Lan Zhou, and Jianhua Z. Huang</i>	1070

Multivariate Analysis of Variance Using a Kotz Type Distribution	
<i>Kusaya Plungpongpun, and Dayanand N. Naik.....</i>	1076
Statistical Analysis of Climate Evolution in Dobrudja Region	
<i>Carmen Maftai, and Alina Barbulescu.....</i>	1082
A Distributed Lag Estimator with Piecewise Monotonic Coefficients	
<i>I. C. Demetriou, and E. E. Vassiliou.....</i>	1088
Feature Selection Based On A Data Quality Measure	
<i>Luis Daza, and Edgar Acuna.....</i>	1095
Statistical Analysis of Human Physiological Parameter using Six Sigma Techniques	
<i>Dipali Bansal, Munna Khan, Deepak Goel, and A. K. Salhan.....</i>	1100
The Wide-Sense Parametric Coverage Estimator against the Distribution Mismatch Problem for Sparse Data	
<i>Wen-Hui Lo, and Sin-Horng Chen.....</i>	1105
A Technique for Estimator Densities applied to Exponential Regression, Nonlinear Regression models and Biochemical Titration Curves	
<i>Peter Hingley.....</i>	1111

The 2008 International Conference of Financial Engineering

A Regularization Approach to Hedging Collateralized Mortgage Obligations	
<i>Yury Gryazin, and Michael Landrigan.....</i>	1119
Copula Marginal Expected Tail Loss Efficient Frontiers for CDOs of Bespoke Portfolios	
<i>Diresh Jewan, Renkuan Guo, and Gareth Witten.....</i>	1124
Optimal Capital Management in Banking	
<i>T. Bosch, J. Mukuddem-Petersen, M.P. Mulaudzi, and M.A. Petersen...</i>	1130
A Genetic Programming Based Stock Price Predictor together with Mean-Variance Based Sell/Buy Actions	
<i>Ramin Rajabioun, and Ashkan Rahimi-Kian.....</i>	1136
Reaction Theory	
<i>Srinivas Bharadwaj.....</i>	1142
Asset Liability Management in Indian Banking Industry - with special	

reference to Interest Rate Risk Management in ICICI Bank	
<i>Dr. B. Charumathi</i>	1149
Evolutionary Methods for Multi-Objective Portfolio Optimization	
<i>I. Radziukynien , and A. ilinskas</i>	1155
Direction-of-Change Financial Time Series Forecasting using Bayesian Learning for MLPs	
<i>Andrew A. Skabar</i>	1160
Logistic Growth Models for Analysis of Stocks Markets Bubbles	
<i>Stasys Girdzijauskas, and Dalia Streimikiene</i>	1166
Computational Neural Network for Global Stock Indexes Prediction	
<i>Dr. Wilton.W.T. Fok, Vincent.W.L. Tam, and Hon Ng</i>	1171
Behavioural Finance Or Efficient Market: Which Is Right ?	
<i>Mamadou Konte</i>	1176

The 2008 International Conference of Manufacturing Engineering and Engineering Management

Machining Error Predictive Model in a CAPP system for turning: Formulation and Initial Tests	
<i>G. Valiño, D. Blanco, B. J. Álvarez, and S. Mateos</i>	1182
Process Capability Index for Off-line Application of Product Life Cycle	
<i>Angus Jeang, Chien-Ping Chung, Huan-Chung Li, and Mei-Hui Sung</i>	1188
Consumer Insight Mining for Retail Multi-Item Inventory Modeling	
<i>Pradip Kumar Bala</i>	1193
Application of Finite Elements on Non-Linear Deformation of Flexographic Photopolymer Printing Plate	
<i>M. S. Yusof, T. C. Claypole, D. T. Gethin, and A. M. Ahmad Zaidi</i>	1197
Are All Designs of Experiments Approaches Suitable for Your Company?	
<i>Martín Tanco, Elisabeth Viles, and Lourdes Pozueta</i>	1202
Computer Assisted Technologies in the Development of Prototypes	
<i>Simões José, Leite Afonso, and Vieitas José</i>	1208
A Discussion About How to Model Biofuel Plants for the Risk Optimization	
<i>Jorge E. Nunez Mc Leod, and Selva S. Rivera</i>	1214

Enhancing Six Sigma with Systems Dynamic	
<i>Hari A Yuniarto, and Taha MS Elhag.....</i>	1220
The Statistical Mixture Design of Rice Polishing Cylinder	
<i>Surapong Bangphan, Sukangkana Lee and Sermkiat Jomjunyong.....</i>	1226
Key Factors Affecting the Effectiveness of Technical Education – An Indian Perspective	
<i>Anil R. Sahu, Dr R. L. Shrivastava, and Dr R. R. Shrivastava.....</i>	1232
Human Error in Biofuel Plants Accidents	
<i>Selva S. Rivera, and Jorge E. Núñez Mc Leod.....</i>	1237
Grey Relation Entropy based Dynamic Evaluation Model of Product Lifecycle Information System Evolution	
<i>Shi-yi Zhao, Zi-jian Liu, and Yi-nan Li.....</i>	1243
Sensor Based Condition Monitoring Feature Selection Using a Self-Organizing Map	
<i>Rui G. Silva, and Steven J. Wilcox.....</i>	1247
Micro Structure Printer with Automated Workflow for Fabrication of Micro Implantable Medical Devices	
<i>M. Schwarz, and L. Kraaijeveld.....</i>	1253
Intelligent Manufacturing Systems: a methodology for technological migration	
<i>Jorge Gamboa-Revilla, and Miguel Ramirez-Cadena.....</i>	1257
The Need for a Life Cycle Approach on the Material Selection: a Case Study of an Automobile Fender	
<i>Inês Ribeiro, Paulo Peças, and Elsa Henriques.....</i>	1263
The Marmaray Project: Managing a Large Scale Project with Various Stake Holders	
<i>H. Belkaya, Dr. I. H. Ozmen, and Dr. I. Karamut.....</i>	1268
Solving Assembly Line Balancing Problem using Genetic Algorithm with Heuristics-Treated Initial Population	
<i>Kuan Eng Chong, Mohamed K. Omar, and Nooh Abu Bakar.....</i>	1273
Collaborative Clusters: A Customer Focused Innovative Approach for Product Development	
<i>C. Ucler, and O Vayvay.....</i>	1278
Application of Fuzzy Mathematical Approach for Cell Formation and Layout Design with Uncertain Condition	
<i>Iraj Mahdavi, Mohammad Mahdi Paydar, Armaghan Heidarzade, and Nezam Mahdavi-Amiri.....</i>	1284
An Analysis Of Rise And Fall Of SCM – ICT Integration By The FMCG	

Sector In Pakistan

Muhammad Fahim Shamim, Sanam Riaz, and Roshan A. Shaikh..... 1290

Measurement of Agility in Manufacturing Systems: A Fuzzy Logic Approach

Ritu Chandna (Kharbanda)..... 1296

Fuzzy Programming Approach for a Multi-objective Single Machine Scheduling Problem with Stochastic Processing Time

Iraj Mahdavi, Babak Javadi, and Ali Tajdin..... 1302

Characterisation of Natural Fibres (Sugarcane Bagasse) in Cement Composites

M. J. Ghazali, C. H. Azhari, S. Abdullah and M. Z. Omar..... 1307

E Manufacturing a Technology Review

Dr. H.K. Shivanand, Nanjundaradhya N. V, Prabhakar Kammar, Divya shree S, and Keshavamurthy YC..... 1310

Engineering Ocean Nourishment

Bruce Judd, Daniel P Harrison, and Ian S F Jones..... 1315

Penetration Depth Prediction in Mesh-less Metal Targets

A. M. Ahmad Zaidi, Q. M. Li, and M. S. Yusof..... 1320

The 2008 International Conference of Mechanical Engineering

Method of Transformation from Inertial to Reference Frame Formulation of Flexible Multibody Systems

Dmitry Vlasenko, and Roland Kasper..... 1325

Impact Performance of Advanced High Strength Steel Thin-Walled Columns

Portillo Oscar, and Romero Luis Eduardo..... 1331

Numerical Simulation of a Pulsatory Flow Moving Through Flexible Walls Using Smoothed Particle Hydrodynamics

Mehrdad H. Farahani, Nima Amanifard, and Gholamhosein Pouryoussefi..... 1337

Positional Accuracy of an Alignment Stage for a Large-area UV Nanoimprint Lithography

Jinyoung Lee, Chongjin Won, and Jay I. Jeong..... 1342

Explorative Computation on Vacuum-Energized Fluid Conveyance

Sun Gang, Zhang Weikang, and Alex H. LEO..... 1347

Theoretical Performance Comparison between Inline, Offset and Twin Crankshaft Internal Combustion Engines	
<i>Dr. Taj Elssir Hassan</i>	1351
Theoretical Study of a New Spray On Demand Print-Head	
<i>Moussa Tembely, Christian Lecot, and Arthur Soucemarianadin</i>	1357
Investigating the Bubble Behavior in Pool Boiling in Microgravity Conditions	
<i>Thilanka Munasinghe</i>	1366
Deposition of Ni-Fe/Si3N4 Nanocomposite Prepared by Electroplating	
<i>Yusrini Marita, and Iskandar Idris Yaacob</i>	1372
A Study of Short Areca Fiber Reinforced PF Composites	
<i>G. C. MOHAN KUMAR</i>	1375
Comparison Between Different Finite Element Methods for Foreseeing the Elastic Properties of Carbon nanotube Reinforced Epoxy Resin Composite	
<i>Abdolhosein.Fereidoon, Esmaeel.Saeedi, and Babak Ahmadimoghadam</i> ...	1381
A Model for Potential Deterministic Effects in Turbomachinery Flows	
<i>Stefan Stollenwerk, and Dirk Nuernberger</i>	1386
An Insight of Torque and Stress Balance Behaviour of A Contrahelically Armored Cable	
<i>Shibu G, and Parthasarathy N.S</i>	1392
Particularity of the Rocket Movement upon the Launcher under the Disturbance Factors Action which Appear During the Firing	
<i>Pamfil OMOIAG, Doru SAFTA, and Cristian-Emil MOLDOVEANU</i>	1396
Knee Joint Edoprosthesis - Verification of Contact Pressures by Pressure Sensitive Films	
<i>Lukas Zach, Lukas Horak, Pavel Ruzicka, and Svatava Konvickova</i>	1402
Design of Hollow Cone Nozzles for Gas Oil Injection Process	
<i>J. Mora, R. Bolado, and J.C. Prince</i>	1406
Development and Optimization of Vibration Protection Seats (Tempered Springs) for Agricultural Tractor	
<i>Ch. Sreedhar, Dr. K. C. B. Raju, Dy. G. M. BHEL, and Dr. K. Narayana Rao</i> .	1412
Natural Convection Heat Transfer Enhancement in a Closed Cavity with Partition Utilizing Nano Fluids	
<i>S. H Anilkumar, and G Jilani</i>	1418
Comparison Final Velocity for Land Yacht with a Rigid Wing and Cloth Sail	
<i>M. Khayyat, and M. Rad</i>	1424

An Optimal Design for Subsonic Wing Planar Shape and Twisted Angle by a Modified Genetic Algorithm	
<i>Sun Gang, Chen Yingchun, and Alex H. LEO.....</i>	1430
Optimal Process Control Parameters Estimation in Aluminium Extrusion for Given Product Characteristics	
<i>P. Kathirgamanathan, and T. Neitzert.....</i>	1436
The Dynamics of Shock Amplification	
<i>Bryan Rodgers, Suresh Goyal, Gerard Kelly, and Michael Sheehy.....</i>	1442
Family of Mapped Elastodynamic Infinite Elements, Applicable to FEM	
<i>Konstantin S. Kazakov.....</i>	1448
Study on Mixed Mode Crack-tip Plastic Zones in CTS Specimen	
<i>C. M. Sharanaprabhu, and S. K. Kudari.....</i>	1452
Thermal-Mechanical Analysis of a QFN Stacked-Die Leadframe under Reflow Process	
<i>S. Abdullah, M. F. Abdullah, A. K. Ariffin, Z. A. Aziz, and M. J. Ghazali..</i>	1458
Analyze of the Counter-Rotating Vortices Pair Stability under the External Turbulence Influence	
<i>Cristian-Emil MOLDOVEANU, Doru SAFTA, Pamfil OMOIAG.....</i>	1463
New Developments in Thermoplastic Elastomers: The Hard Segment Inelastic Effects OnThe Mechanical Performance of Polyurethane Elastomers	
<i>Cristina. Prisacariu, Elena Scortanu, and Paul C. Buckley.....</i>	1468
Development of Active Suspension System for Automobiles using PID Controller	
<i>Mouleeswaran Senthil kumar.....</i>	1472
Research on Mechanics Symmetry Ontology	
<i>MA ZhiYong, FENG PeiEn, ZHANG Jian, and ZENG LingBin.....</i>	1478
Mass Efficiency in Mechanical Design	
<i>Subbiah Ramalingam.....</i>	1487
Effects of Drill Points on Glass Fibre Reinforced Plastic Composite While Drilling at High Spindle Speed	
<i>Vijayan Krishnaraj.....</i>	1493
Optimally Economic Design of Flare Systems	
<i>Hossein Shokouhmand, and Shahab Hosseini.....</i>	1500
Numerical Study of the Effects of Porous Burner Parameters on Combustion and Pollutants Formation	
<i>Siamak Hossainpour, and Bahman Haddadi.....</i>	1505

Manipulator Redundancy Reduction as a Tool for Reinforcing Motion Planning Using Genetic Algorithms	
<i>Amir Homayoun Javadi A.</i>	1511
Advances in Automobile Engineering: Brake Assisted Differential Locking System	
<i>Kanwar Bharat Singh.</i>	1517
Dry Testing Method for Heat Exchangers	
<i>Diana L. Cotoros, Mihaela I. Baritz, and Constantin M. Opran.</i>	1521
Numerical Analysis of Two-Phase Turbulent Flow in Horizontal Channel with Experimental Verification	
<i>Hassan Rahimzadeh, Bamdad Barari, and Mohammad Hesam Asoodeh.</i>	1525
Modeling the Transient Response of the Thermosyphon Heat Pipes	
<i>B. Rashidian, M. Amidpour, and M. R. Jafari Nasr.</i>	1530
Influence of Machining Parameters on Electric Discharge Machining of Maraging Steels – An Experimental Investigation	
<i>G Krishna Mohana Rao, S. Satyanarayana, and M Praveen.</i>	1536
Experimental Investigation into the Effect of Mechanical Design of an Escalator and Passenger Loading on its Energy Consumption	
<i>Lutfi R. Al-Sharif.</i>	1542
Impact of Exhaust Gas Recirculation on the Performances of Diesel Engine	
<i>P. V. Walke, Dr. N. V. Deshpande, and R. G. Bodkhe.</i>	1548
A Developed Quasi-Dimensional Combustion Model in Spark-Ignition Engines	
<i>Seyedmohsen Hosseini, Rushed Abdolah, and Amir Khani.</i>	1553
Analytical Solution of Temperature Field in a Spherical Powder Particle Subjected to Gaussian Heat Flux	
<i>Gholamali Atefi, and Shokran Khadem alsharieh Jr.</i>	1558
The Use of Fabric Diffusers to Control Environmental Tobacco Smoke	
<i>A. J. Geens, D.G. Snelson, and J. R. Littlewood.</i>	1563
The Ovalisation of Thin-walled Circular Tubes Subjected to Bending	
<i>C. Thinvongpituk, S. Poonaya, S. Choksawadee, and M. Lee.</i>	1571
Numerical Simulation and Optimization of Heat Transfer in Reciprocating Flows in Two-Dimensional Channels	
<i>H. Shokouhmand, A. Mosahebi, and B. Karami.</i>	1576
Emission Characteristics Of A Compression Ignition Engine Using Different Catalyst	

<i>P. V. Walke, Dr. N. V. Deshpande, and A.K. Mahalle.....</i>	1582
CFD Investigation of Airflow on a Model Radio Control Race Car	
<i>Chainani. A, and Perera. N.....</i>	1588
Investigation of the Idea of Active Suspension System Application in Hybrid Electric Vehicles	
<i>Seyedmohsen Hosseini, Rushed Abdolah, and Amir Khani.....</i>	1592
Analysis of Aerofoil Blade using ANSYS for a Vehicle Mounted Micro Wind Turbine	
<i>S.N. Prasad, Sai Sashankh Rao, and Vijay Mohan.....</i>	1600
Robot Position Tracking Using Kalman Filter	
<i>Oscar Laureano Casanova, Fragaria Alfissima, and Franz Yupanqui Machaca.....</i>	1604
Die Wear Profile Investigation in Hot Forging	
<i>F. R. Biglari, and M Zamani.....</i>	1609
Transient Free Convection Flow Between two Long Vertical Parallel Plates with Constant Temperature and Mass Diffusion	
<i>Narahari Marneni.....</i>	1614
Alpha Risk of Taguchi Method with L18 Array for NTB Type QCH by Simulation	
<i>A. Al-Refai, and M.H. Li.....</i>	1620
Annealing Behavior of Ferromagnetic FePt Nanoparticles Prepared in Water in Oil Microemulsions	
<i>Koay Mei Hyie, and Iskandar Idris Yaacob.....</i>	1625
Studying the Effect of Rock Shape on Brittle Fracture Pattern Using a Mesh-free Method SPH	
<i>Rajarshi Das, and Paul W. Cleary.....</i>	1629
Modeling a Catalytic Converter for CO and NO Emissions	
<i>J. C. Prince, C. Treviño, and M. Díaz.....</i>	1635

The 2008 International Conference of Systems Biology and Bioengineering

Spiking Neurons: Is coincidence-factor enough for comparing responses with fluctuating membrane voltage?

M. Sarangdhar, and C. Kambhampati..... 1640

Multiway Analysis of Alzheimer' s Disease: Classification based on

Space-frequency Characteristics of EEG Time Series	
<i>C. -F. V. Latchoumane, F. Vialatte, A. Cichocki, and J. Jeong.....</i>	1646
A Fuzzy Approach to Clustering and Selecting Features for Classification of Gene Expression Data	
<i>Elham Chitsaz, Mohammad Taheri, and Seraj D. Katebi.....</i>	1650
Prediction of Protein - Protein Interactions Using Evolutionary and Structural Relationships	
<i>Nazar Zaki.....</i>	1656
From Neuronal Ionic Channels to Muscle Control: A Web-based Simulator and Its Application to Teaching	
<i>Rogério R. L. Cisi, and Andre F. Kohn.....</i>	1662
In vitro Testing of a Novel Fibre-In-Fibre Bioartificial Liver (FIF-BAL) With Bovine Plasma	
<i>Ali H. Alnaqbi, and John D. S. Gaylor.....</i>	1666
Modeling and Reconstruction of Blood Vessels Based on CT & MR Images	
<i>Sepehr Sadeghian, Soheil Sadeghian, and Reza Molaei.....</i>	1672
MP-HA: Multicycles Protocol for Hospital Automation over Multicast	
<i>Ricardo A. de M. Valentim, Antônio H. F. Morais, Heitor U. Bezerra, Hélio B. de A. Júnior, Marcelo A. Xavier, Ana M. G. Guerreiro, Gláucio B. Brandão, and Carlos A. Paz de Araújo.... ..</i>	1676
A Novel Cellular-Level Numerical Model of the Lac Operon in E. Coli	
<i>Alex Huaqiang Leo, Sun Gang, Paul Decelles, and Fu Qian.....</i>	1682
Wireless Device for Patient Monitoring	
<i>Robert G. Lupu, Andrei Stan, and Florina Ungureanu.....</i>	1687
Hospital Automation RFID-Based: Technology Stored In Smart Cards	
<i>Gustavo H. P. Florentino, Heitor U. Bezerra, Hélio B. de A. Júnior, Marcelo X. Araújo, Ricardo A. de M. Valentim, Antônio H. F. Morais, Ana M. G. Guerreiro, Gláucio B. Brandão, and Carlos A. Paz de Araújo...</i>	1692
Object Recognition, A Particular Reference to Face Recognition	
<i>Praseeda Lekshmi. V, Dr. M. Sasikumar, and Divya. S. Vidyadharan.....</i>	1696
A Novel Stack based Dynamic Programming for Reducing Memory Complexity Applied on DNA Sequences	
<i>R. Khayami, and E. Parvinnia.....</i>	1701

Appendix

Abstracts from Two Participants of Oral Presentation Only	1707
Author Index	