



Honorary Editors: Xuewei Li, Zhen Han

Editor: De Xu

Associate Editor: Kun Gao

Hosted and Sponsored by Beijing Jiaotong University

New Advances in Simulation, Modelling and Optimization

Proceedings of the 7th WSEAS

International Conference on

Simulation, Modelling and

Optimization

Beijing, China, September 15-17, 2007

Electrical and Computer Engineering Series

A Series of Reference Books and Textbooks

ISBN: 978-960-6766-05-3

ISSN: 1790-5117

Published by WSEAS Press

www.wseas.org



New Advances in Simulation,
Modelling and Optimization

**Proceedings of the
7th WSEAS International Conference on
SIMULATION, MODELLING AND OPTIMIZATION
(SMO '07)**

**Beijing, China, September 15-17, 2007
Hosted and Sponsored by Beijing Jiaotong University**

New Advances in Simulation, Modelling and Optimization

Proceedings of the 7th WSEAS International Conference on **SIMULATION, MODELLING AND OPTIMIZATION** (SMO '07)

Beijing, China, September 15-17, 2007
Hosted and Sponsored by Beijing Jiaotong University

Published by World Scientific and Engineering Academy and Society Press
<http://www.wseas.org>

Copyright © 2007, by WSEAS Press

All the copyright of the present book belongs to the World Scientific and Engineering Academy and Society Press. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the Editor of World Scientific and Engineering Academy and Society Press.

All papers of the present volume were peer reviewed by two independent reviewers. Acceptance was granted when both reviewers' recommendations were positive.
See also: <http://www.worldses.org/review/index.html>

ISSN: 1790-5117
ISBN: 978-960-6766-05-3



World Scientific and Engineering Academy and Society

HONORARY EDITORS:

Professor Xuewei Li, President of Beijing Jiaotong University, China

Professor Zhen Han, Head of dept. of Computer Science & IT, Beijing Jiaotong University, China

EDITOR:

Professor De Xu, Beijing Jiaotong University, China

ASSOCIATE EDITOR:

Professor Kun Gao, Donghua University, China

SCIENTIFIC COMMITTEE:

Jianfei Yin, CHINA	Yoshihiro Tanada, JAPAN
Liuguo Yin, CHINA	Lixin Tao, USA
Whai-En Chen, TAIWAN, CHINA	Nam Tran, AUSTRALIA
Yuehui Chen, CHINA	Argyrios Varonides, USA
Toly Chen, TAIWAN, CHINA	Peter Trkman, SLOVENIA
Michael Wasfy, USA	Lamberto Tronchin, ITALY
Ta-Cheng Chen, TAIWAN, CHINA	Amritasu Sinha, INDIA
C. Manikopoulos, USA	Ming-Jer Tsai, TAIWAN, CHINA
Chin-Mou Cheng, TAIWAN, CHINA	Woei-Jiunn Tsaur, TAIWAN, CHINA
Yaoyu Cheng, CHINA	Kuo-Hung Tseng, TAIWAN, CHINA
Chin-Mou Cheng, TAIWAN, CHINA	Hiroshi Umeo, JAPAN
Myeonggil Choi, KOREA	Ronald Yager, USA
Yuk Ying Chung, AUSTRALIA	Pragya Varshney, INDIA
Valeri Mladenov, BULGARIA,	Lusheng Wang, HONG KONG S.A.R.
Ahmed Dalalah, JORDAN	Lei Wang, CHINA
Andris Buikis, LATVIA	Zhongfei Wang, CHINA
Saeed Daneshmand, IRAN	Hironori Washizaki, JAPAN
Metin Demiralp, TURKEY	Wang Wen, CHINA
Chie Dou, TAIWAN, CHINA	Kin Yeung Wong, MACAU S.A.R.
Guolin Duan, CHINA	Jyh-Yang Wu, TAIWAN, CHINA
Manuel Duarte-Mermoud, CHILE	Hsiaokuang Wu, TAIWAN, CHINA
Odysseas Efremides, GREECE	Yinshui Xia, CHINA
Jose Carlos Quadrado, PORTUGAL	Yi Xie, CHINA
Toshio Eisaka, JAPAN	Xinli Xu, CHINA
Odysseas Pyrovolakis, GREECE	Yong Xu, CHINA
Frank Ekparr, JAPAN	Yinlong Xu, CHINA
Eyas El-Qawasmeh, JORDAN	Xinli Xu, CHINA
Alberto Escobar, MEXICO	Bin Xu, CHINA
Kwo-Jean Farn, TAIWAN, CHINA	Hongwen Yan, CHINA
Alessandra Flammini, ITALY	Hung-Jen Yang, TAIWAN, CHINA
Athina Lazakidou, GREECE	Thomas Yang, USA
Jose-Job Flore-Godoy, MEXICO	Hung-Jen Yang, TAIWAN, CHINA
Joseph Fong, HONG KONG S.A.R.	Houjun Yang, CHINA
Kostas Siasiakos, GREECE	Hsieh-Hua Yang, CHINA
Donata Francescato, ITALY	Wenrong Yang, CHINA
Tapio Frantti, FINLAND	Hung-Jen Yang, TAIWAN, CHINA
Georges Fried, FRANCE	Sumanth Yenduri, USA
Rocco Furferi, ITALY	Alimujiang Yiming, JAPAN
James Gao, UNITED KINGDOM	Noor raihan Ab hamid, MALAYSIA
Zong Geem, USA	Mahfoudhi Adel, TUNISIA
Ahmad Ghanbari, IRAN	Horia Andrei, ROMANIA
Gilson Giraldi, BRAZIL	JUN Aoe, JAPAN
Panos Pardalos, USA	Amornchai Arpornwichanop, THAILAND
Wanwu Guo, AUSTRALIA	Ali Assi, UNITED ARAB EMIRATES
Sungho Ha, KOREA	Natalie Baddour, CANADA
Amauri Caballero, USA	Sathiyabhama Balasubramaniam, INDIA
Aamir Hanif, PAKISTAN	Jose Barahona da Fonseca, PORTUGAL
Iraj Hassanzadeh, IRAN	Konstantin Belyaev, AUSTRALIA

Nualsawat Hiransakolwong, THAILAND	Fathi Ben Amar, TUNISIA
Rong-Lain Ho, TAIWAN, CHINA	Hector Benitez-Perez, MEXICO
Seyed Ebrahim Hosseini, IRAN	Hamid Bentarzi, ALGERIA
Wen Hou, CHINA	Ubiratan Bezerra, BRAZIL
Shih-Wen Hsiao, TAIWAN, CHINA	Stefano Bifaretti, ITALY
Mingsheng Hu, CHINA	Petr Bouchner, CZECH REPUBLIC
Shyh-Fang Huang, TAIWAN, CHINA	Euiseok Byeon, KOREA
A. Manikas, UK	Amaury Caballero, UNITED STATES
Chenn-Jung Huang, TAIWAN, CHINA	Maria do Rosário Calado, PORTUGAL
Yu-Jung Huang, TAIWAN, CHINA	Doina Cascaval, ROMANIA
Ren Yong Feng, CHINA	Iraklis Chalkidis, GREECE
Tetsuya Yoshida, JAPAN	Jonathan Chan, THAILAND
Hsiang-fu Yu, TAIWAN, CHINA	Clive Chandler, UNITED KINGDOM
S.Y.Chen, GERMANY	Huay Chang, TAIWAN, CHINA
Longjiang Yu, CHINA	Xueqin Chen, CHINA
Kiyun Yu, KOREA	Ion Chrysosoverghi, GREECE
Costin Cepisca, ROMANIA	Tak Shing Chung, HONG KONG S.A.R.
Enzhe Yu, KOREA	Lucian Cioca, ROMANIA
Chang Nian Zhang, CANADA	John Coletsos, GREECE
Jianwei Zhang, GERMANY	Ignasi Colominas, SPAIN
Wendong Zhang, CHINA	Jose Manuel Correas, SPAIN
Jianjun Zhang, CHINA	M.Fernanda Costa, PORTUGAL
Camelia Ioana Ucenic, ROMANIA	Lino Costa, PORTUGAL
Zhijin Zhao, CHINA	Marcos Flavio Silveira V. D'Angelo, BRAZIL
Ina Taralova, FRANCE	Maria Emilia de Lima Tostes, BRAZIL
Zhige Zhou, CHINA	Ali Delavarkhalafi, IRAN
Yuanguo Zhu, CHINAPing An, CHINA	Carlo dell'Aquila, ITALY
Yuejun An, CHINA	Metin Demiralp, TURKEY
Kiyoshi Akama, JAPAN	Horst Dietrich, AUSTRIA
Ali Al-dahoud, JORDAN	Roshidi Din, MALAYSIA
Yasar Amin, PAKISTAN	Radu Dobrescu, ROMANIA
Mehrdad Ardebilipour, IRAN	Valentin Dogaru Ulieru, ROMANIA
Carlos Aviles-Cruz, MEXICO	Zaneta Eleschova, SLOVAKIA
Yun Bai AUSTRALIA	Sylvia Encheva, NORWAY
Ana Madureira, PORTUGAL	Kjersti Engan, NORWAY
Alexander Zemliak, MEXICO	Isabel EspÍrito Santo, PORTUGAL
Petr Ekel, BRAZIL	Morris Abraham Gnanamuthu Ezra, MALAYSIA
Moh'd belal Al-Zoubi, JORDAN	Martti Forsell, FINLAND
Poorna Balakrishnan, INDIA	Dalibor Frydrych, CZECH REPUBLIC
Sorin Borza, ROMANIA	Hamido Fujita, JAPAN
Yue-shan Chang, TAIWAN, CHINA	Bei Gou, UNITED STATES
Alexander Grebennikov, MEXICO	Silviu Guiasu, CANADA
Huay Chang, TAIWAN, CHINA	Hafiz Adnan Habib, PAKISTAN
Olga Martin, ROMANIA,	Louis Handfield, CANADA
Chin-chen Chang, TAIWAN, CHINA	Aamir Hanif Hanif, PAKISTAN
Chip Hong Chang, SINGAPORE	Mahdi Hedayati, IRAN
Sheng-Gwo Chen, TAIWAN, CHINA	Ching-Tang Hsieh, TAIWAN, CHINA
Min-Xiou Chen, TAIWAN, CHINA	Kun-Lin Hsieh, TAIWAN, CHINA
George Antoniou, USA	Hanafizan Hussain, MALAYSIA
Tanglong Chen, CHINA	Sebastiano Impedovo, ITALY
Lotfi Zadeh, USA	Lagrat Ismail, MOROCCO
Guo-shing Huang, TAIWAN, CHINA	Sherif Sabry Issa, EGYPT
Chenn-Jung Huang, TAIWAN, CHINA	Shahram Javadi, IRAN
Dil Hussain, DENMARK	Dimitrios Karras, GREECE
Philippe Dondon, FRANCE,	Kikuhito Kawasue, JAPAN
Muhammad Ibrahimy, MALAYSIA	Tomaz Klobucar, SLOVENIA
Apostolos Ifantis, GREECE	Farhad Kolahan, IRAN
Shiming Ji, CHINA	Jitka Komarkova, CZECH REPUBLIC
Zhang Ju, CHINA	Hana Kopackova, CZECH REPUBLIC
Liu Jun, CHINA	Regina Kulvietiene, LITHUANIA

<p>Michael Katchabaw, CANADA Seong Baeg Kim, KOREA Jin-tae Kim, KOREA Young Jun Kim, KOREA Mallikarjun Kodabagi, INDIA Vicenzo Niola, ITALY M. I. Garcia-Planas, SPAIN Insoo Koo, KOREA Young-doo Kwon, KOREA Vincent Lee, AUSTRALIA Hsien-da Lee, TAIWAN, CHINA Weimin Li, CHINA Qin Li, CHINA Daoliang Li, CHINA Bo Li, CHINA Vitaliy Kluev, JAPAN Daoliang Li, CHINA Xiaoyu Li, CHINA Daoliang Li, CHINA Aydina Akan, TURKEY Congqing Li, CHINA Jie Li, CHINA Zhu Liehuang, CHINA S. S. Lin, TAIWAN, CHINA Pei-huang Lin, TAIWAN, CHINA Chu-Hsing Lin, TAIWAN, CHINA S.S.Dlay, UK Chia-Chen Lin, TAIWAN, CHINA Chih-Min Lin, TAIWAN, CHINA whei-min Lin, TAIWAN, CHINA Shengyou Lin, CHINA YI Liu, UNITED KINGDOM Jiang Liu, UNITED STATES Shi-jeer Lou, TAIWAN, CHINA Shyue-Kung Lu, TAIWAN, CHINA Mingfeng Lu, TAIWAN, CHINA Addouche Mahmoud, FRANCE Sunilkumar Manvi, INDIA Drakoulis Martakos, GREECE Aurelio Medina, MEXICO Ravinda Meegama, SRI LANKA Afif Mghawish, JORDAN Tetsushi Miki, JAPAN Zhong Ming, CHINA Wang Mingquan, CHINA Hu Mingsheng, CHINA Guoliang Mo, CHINA Bartolomeo Montrucchio, ITALY K. Ioannou, GREECE Francesco Muzi, ITALY Mariko Nakano-Miyatake, MEXICO Sang-Won Nam, KOREA Hamidullah Khan Niazi, CHINA Yukio Ohsawa, JAPAN Hasnaoui Othman, TUNISIA Zeljko Panian, CROATIA PooGyeon Park, KOREA Vidyasagar Potdar, AUSTRALIA Carlos G. Puntonet, SPAIN Maria Rizzi, ITALY</p>	<p>Kim Le, AUSTRALIA Remi Leandre, FRANCE Heungjae Lee, KOREA Huey-Ming Lee, TAIWAN, CHINA Gabrijela Leskovar-Apacapan, SLOVENIA Jiri Lettl, CZECH REPUBLIC Jaime Lloret, SPAIN Rajasvaran Logeswaran, MALAYSIA Shi-Jer Lou, TAIWAN, CHINA renu madhavi, INDIA Michael Mann, GERMANY Olivier Markowich, BELGIUM Moacyr Martucci, BRAZIL Boonruang Marungsri, THAILAND Maurizio Melluso, ITALY Mohamed Mena, ALGERIA Helena Menezes, PORTUGAL Muhammad saleem Mian, PAKISTAN Bogdan Miedzinski, POLAND Jurate Mikucioniene, LITHUANIA Joydeep Mitra, UNITED STATES Namdar Mogharreban, UNITED STATES Bouhdadi Mohamed, MOROCCO Pornchai Mongkolnam, THAILAND Frank Moore, UNITED STATES Ismail Musirin, MALAYSIA Hossein Najafi, IRAN Koichi Nara, JAPAN Hakim Nesreddine, CANADA Issarachai Ngamroo, THAILAND Elena Niculescu, ROMANIA Vicenzo Niola, ITALY Giles Oatley, UNITED KINGDOM Alexandru Onea, ROMANIA Andrey Osipov, RUSSIA Chien-Min Ou, TAIWAN, CHINA Zeljko Panian, CROATIA (HRVATSKA) Byung Joo Park, KOREA Paulo Pereirinha, PORTUGAL Yongyuth Permpoontanalarp, THAILAND Roy Perryman, UNITED KINGDOM Klaus Pfeiffer, GERMANY Shlomit Pinter, ISRAEL Giuseppe Pirlo, ITALY Stavros Ponis, GREECE Dorin Popescu, ROMANIA Isabel Pra?a, PORTUGAL Ricco Rakotomalala, FRANCE Andre Ribeiro, CANADA Sandra Robla, SPAIN Alexey Sadovski, UNITED STATES Mukhtar hussain sahir Sahir, PAKISTAN Vasco Santos, PORTUGAL Harald Schwarz, GERMANY Jolana Sebestyenova, SLOVAKIA Alaa Sheta, JORDAN Bostjan Slivnik, SLOVENIA Kulas Stanislaw, POLAND Zoran Stjepanovic, SLOVENIA Dr Suwarno, INDONESIA</p>
---	--

M. Bisiacco, ITALY Chen Rong-chang, TAIWAN, CHINA Poornachandra Sanjeeva, INDIA Mostafa Sedighizadeh, IRAN J.N. Sheen, TAIWAN, CHINA Sangmun Shin, KOREA Li Shuhong, CHINA Yu Shunkun, CHINA Andrzej Sluzek, SINGAPORE Hokeun Song, KOREA Paulo Sousa, PORTUGAL Sarawut Sujitjorn, THAILAND Yi Sun, CHINA Guangzhong Sun, CHINA	Yusup Suzana, MALAYSIA To Tang, UNITED STATES Frangiskos Topalis, GREECE Maria E. Torres, ARGENTINA Onsen Toygar, TURKEY Enn Tyugu, ESTONIA Marilena Ungureanu, ROMANIA Ismael Vaz, PORTUGAL Vicente Venegas, MEXICO Chih-Chien Yang, TAIWAN, CHINA Cherry Yuen, SWITZERLAND Kazuto Yukita, JAPAN Mohamed Zahran, EGYPT Vladimir Zatsiorsky, UNITED STATES
--	---

**7th WSEAS International Conference on
SIMULATION, MODELLING AND OPTIMIZATION
(SMO '07)
TABLE OF CONTENTS**

Some Properties of Fractional Bessel Processes Driven by Fractional Brownian Motion <i>Yu Sun, Changchun Gao</i>	1
A New Approach for Color Image Edge Detection Using Improved PCNN <i>Liang Zhou, Jianguo Zheng</i>	6
Direct Solution of 2D Heat Transfer Problems in Frequency Domain with Dynamic Boundary Conditions <i>R. Zhang, C. Zhang, J. Jiang</i>	12
Online MPL Scheduling of Backward Type for Repetitive Systems with MIMO-FIFO Structure <i>Hiroyuki Goto, Masaru Onuma, Kazuhiro Yamada</i>	20
Contextual and Isolated Algorithms for Multistage Pattern Recognition <i>Marek Kurzynski</i>	26
The Feature Extraction Procedure for Pattern Recognition with Learning Using Genetic Algorithm <i>Edward Puchala, Aleksander Rewak</i>	32
Privacy-Preserving Regression Algorithms <i>Artak Amirbekyan, Vladimir Estivill-Castro</i>	37
Comparison of Surrogate Models for the Actual Global Optimization of a 2D Turbomachinery Flow <i>J. Peter, M. Marcelet, S. Burguburu, V. Pediroda</i>	46
Mining Negative Fuzzy Sequential Patterns <i>Nancy P. Lin, Hung-Jen Chen, Wei-Hua Hao, Hao-En Chueh, Chung-I Chang</i>	52
Chemotherapy in an HIV Model by a Pair of Optimal Control <i>A. Heydari, M. H. Farahi, A. A. Heydari</i>	58
Integration of Guidance and Fuze of Directional Warhead Missile <i>Wang Zhengjie, Li Wei, Fan Ningjun</i>	64
Web User Behaviors Prediction System Using Trend Similarity <i>Nien-Yi Jan, Nancy P. Lin</i>	69
Hospital-Transport Cooperation: Medical Treatment Scheduling Method Cooperated with Public Transport and Rural Hospital <i>Tsuyoshi Takayama, Akihiro Kanaya, Mikihiro Ishiki, Yoshitoshi Murata, Ken Shida, Tetsuo Ikeda, Nobuyoshi Satoh</i>	75
Instance Assisted Ontology Alignment for Digital Museums <i>Hongzhe Liu, Hong Bao, Junkang Feng</i>	79
Software Simulation using Sectorization to Reduce Co-Channel Interference <i>Edgar Alejandro Andrade Gonzalez, Mario Reyes Ayala, Josafat Rosales Garcia</i>	85
Fuzzy and Markov Models for Keystroke Biometrics Authentication <i>Dat Tran, Wanli Ma, Girija Chetty, Dharmendra Sharma</i>	89

A Problem Solving Mechanism for Formal Analysis of Cryptographic Protocols <i>Jihong Han, Yu Zhao, Yadi Wang, Zhiyong Zhou</i>	95
Robust Kalman Filter of Discrete-Time Markovian Jump System with Parameter and Noise Uncertainty <i>Jin Zhu, Junhong Park, Kwan-Soo Lee</i>	99
Electric Power Demand Forecasting Based on Cointegration Analysis and a Support Vector Machine <i>Zhang Xing-Ping, Gu Rui</i>	104
Applying Data Mining and XML Technology to Build a Web-Based House Trading and Matching System <i>Chung C. Chang, Fang-Fu Chu</i>	110
Development and Integration of Expert Systems Based on Service-Oriented Architecture <i>Chung C. Chang, Chieh-Tao Tseng</i>	116
Research on Metadata Schema Registry System Oriented Knowledge Service <i>Peng Wu, Beibei Zhang</i>	122
Application of Genetic Algorithm for Solving University Timetabling Problems: a case study of Thai Universities <i>Nawat Nuntasen, Supachate Innet</i>	128
Applicability of RAMS for a Simulation of Wind and Temperature Fields in Bang Pakong Area, Thailand <i>Chatchawan Vongmahadlek, Boonsong Satayopas</i>	134
Japanese Dependency Analysis Based on Improved SVM and KNN <i>Zhou Huiwei, Yang Yage, Yu Tong, Huang Degen</i>	140
An Extension of Ordering Theory on Scoring and Its Application in Cognition Diagnosis of Capacity Concepts <i>Hsin-Ying Huang, Yuan-Horng Lin, Yao-Yuen Chuang</i>	146
Mixed Scoring on Polytomous IRS and the Application in Concepts Diagnosis for Fraction Subtraction <i>Min-Yen Chen, Yuan-Horng Lin</i>	153
Probabilistic Neural Network Classification For Model β-Glucan Suspensions <i>Ratchadaporn Oonsivilai, Anant Oonsivilai</i>	159
An Implementation of Parallel Accelerating System on Chip for DNA Sequence Matching <i>Like Yan, Dazhou Wan, Tianzhou Chen, Zhenbao Huang</i>	165
ChipOS based Grid Computing <i>Jijun Ma, Man Cao, Wei Ma, Tianzhou Chen</i>	171
Application of Weighted Polytomous Ordering Theory in Concepts Structure Analysis of Fraction Addition for Pupils <i>Shih-Yu Chang, Yuan-Horng Lin</i>	177
Scheduling Production Using Genetic Algorithm for Elastic Knitted Fabrics with Wide Ranges of Quantities Demanded <i>Rong-Chang Chen, Pei-Hsuan Hung, Mei-Ching Wu</i>	182
Optimal Design of AQM Controllers <i>D. P. Idraculous, E. Manolakos</i>	188
On Upper and Lower Limits of Elastic Coefficients of SMC Composite Materials <i>Horatiu Teodorescu, Violeta Munteanu, Anca Stanciu, Ramona Purcarea</i>	191
On Tensile Behaviour of Sheet Moulding Compounds	197

Horatiu Teodorescu, Sorin. Vlase, Ioan Candea

Content Free Clustering for Search Engine Query Log <i>Mehdi Hosseini, Hassan Abolhassani, Mohsn Sayyadi Harikandeh</i>	201
A Genetic Algorithm for Optimization Design of Thermoacoustic Refrigerators <i>Sawantit Srikitsuwan, Suwat Kuntanapreeda, Pумыos Vallikul</i>	207
An Adaptive Crossover-Imaged Clustering Algorithm <i>Nancy P. Lin, Chung-I Chang, Hao-En Chueh, Hung-Jen Chen, Wei-Hua Hao</i>	213
Genetic Algorithms applied to Clustering Problem and Data Mining <i>J. F. Jimenez, F. J. Cuevas, J. M. Carpio</i>	219
Data Filtering Technique for Neural Networks Forecasting <i>Wiphada Wettayaprasit, Nasith Laosen, Salinla Chevakidagarn</i>	225
WiSim – A Software Simulation Testbed for Mobile WiMAX <i>Basharat Shah, Y. V. Rao, Sony Eldhose, Ruppy Vardarajan</i>	231
Microarray Gene Selection Using Self-Organizing Map <i>Sirirut Vanichayobon, Siriphan Wichaidit, Wiphada Wettayaprasit</i>	239
Management Scheme of Learning Materials on a P2P Web-Based Training System <i>Kazuo Kuramochi, Takao Kawamura, Kazunori Sugahara</i>	245
Application of Intelligent Search Techniques to Identify Single-Phase Induction Motor's Parameters <i>Deacha Puangdownreong, Thanatchai Kulworawanichpong, Supaporn Suwannarongsri</i>	251
Blast Simulation in Underground Mines Using the Combined Finite-Discrete Element Method <i>Riyu Wei, Sheng Zhang, Warna Karunasena, Nagaratnam Sivakugan, Hongwu Zhang</i>	257
Manual and Evolutionary Equalization in Text Mining <i>Giovanni Bonanno, Francesco Moschella, Salvatore Rinaudo, Pietro Pantano, Valerio Talarico</i>	263
Hardware Realization of Panoramic Camera with Direction of Speaker Estimation and a Panoramic Image Generation Function <i>Toru Uesugi, Takao Kawamura, Tadaaki Shimizu, Kazunori Sugahara</i>	269
A Real-Coded Multi-Objective Estimation of Distribution Algorithm <i>Xiaoping Zhong, Weiji Li</i>	275
An Integrated System for 3D Object Reconstruction and Recognition <i>Weiwei Xing, Weibin Liu, Baozong Yuan, Wei Lu</i>	281
The Minimum Dissipated Active and Reactive Power: an Equilibrium State of the Circuits Under Nonsinusoidal Conditions <i>Horia Andrei, Costin Cepisca, Sorin Dan Grigorescu, Fanica Spinei, Ion Caciula, Paul Cristian Andrei</i>	285
Outcome Based Education Performance Measurement: A Rasch-based Longitudinal Assessment Model to measure Information Management Courses LO's <i>Azrilah Abdul Aziz, Abd Rahman Ahlan, Sohaimi Zakaria, Mohd. Saidfudin Masodi</i>	290
Simulation Modeling and Optimization Technique for Balanced Surface AcousticWave Filters <i>Kiyoharu Tagawa</i>	296
Apply Logit Analysis in Bankruptcy Prediction <i>Ying Zhou, Taha M. S. Elhag</i>	302

Global Optimization Using Hybrid Approach <i>Ting-Yu Chen, Yi Liang Cheng</i>	310
Combined Approach to Pattern Classification in Parametric Case <i>Michal Wozniak</i>	315
Designing the Synthetic T² Quality Control Chart as a Multi-Objective Optimization Problem <i>Francisco Aparisi, Marco De Luna</i>	321
Mining Long High Utility Itemsets in Transaction Databases <i>Guangzhu Yu, Shihuang Shao, Daoqing Sun, Bin Luo</i>	326
Characterization and Modeling of Symmetric and Asymmetric Damping Properties of a Magnetorheological Damper <i>En-Rong Wang, Wan-Jun Wang, Hui Wang, Subhash Rakheja, Chun-Yi Su</i>	332
Impedance Matching by Using a Multi-stub System <i>Carolina Regoli</i>	341
Mining Airline Data for CRM Strategies <i>Lena Maalouf, Nashat Mansour</i>	346
Implementation of Flight Control Computer Hardware Using the C6701 Processor <i>Jong-Kwang Kwon, Jin-Ku Byun, Jong-Min Ahn, Joon-Soo Ko, Dae-Yearl Lee, Whan-Woo Kim</i>	352
Study and Simulation of Nonlinear Effects in Bire-Fringent Fibers Using Efficient Numerical Algorithm <i>Muddassir Iqbal, Z. Zheng, Tian Yu</i>	358
Optimization of Heat Loss as a Major Mode in CNC Machines <i>H. Sharifi Bidgoli, R. A. Mahdavinejad, M. Mehraban</i>	364
Design and Modelling of ECM Rifling Tool <i>R. A. Mahdavinejad</i>	370
Goal-Oriented Decision Support Based on Fuzzy Cognitive Map <i>Yue He, Chun-Mei Lin, Yue Guo</i>	375
Research on Competitive Intelligence System of Enterprise <i>Yu Sun, Changchun Gao</i>	381
A Simulator for Sustainability in Marine Fish Farms <i>Gines Lloret Mauri, Jaime Lloret Mauri</i>	387
Multi-Expert Opinions Combination Based on Evidence Theory <i>Chun-Mei Lin, Yue He</i>	393
A Hermeneutic Approach to the Notion of Information in IS <i>Su-Fen Wang, Chun-Mei Lin, Jun-Kang Feng</i>	400
Fast Mining Maximal Sequential Patterns <i>Nancy P. Lin, Wei-Hua Hao, Hung-Jen Chen, Hao-En Chueh, Chung-I Chang</i>	405
Multi-Market Bidding Strategy of Power Suppliers <i>Zhang Xing-Ping, Wu Run-Lian, Chen Ling</i>	409
The Impact of Organization Changes on Business Intelligence Projects <i>Ana Ramona Lupu, Razvan Bologa, Ion Lungu, Adela Bara</i>	415
On the Automatic Generation of Route Bus Timetables According to the Classification of Destinations	420

Kazunori Toshioka, Takao Kawamura, Kazunori Sugahara

Approximation Scheme for RNA Structure Prediction Based on Base Pair Stacking <i>Hengwu Li, Daming Zhu, Zhenzhong Xu, Huijian Han</i>	426
Frequency Domain Parameter Estimation of a Synchronous Generator Using Bi-objective Genetic Algorithms <i>P. Pao-La-Or, T. Kulworawanichpong, A. Oonsivilai</i>	430
Effects of the Geometry of the Rotor Slots on the Mechanical Vibration of Three-phase Induction Motors <i>P. Pao-La-Or, S. Peaiyoung, T. Kulworawanichpong, S. Sujitjorn</i>	435
Network Anomaly Detection Based on Semi-Supervised Clustering <i>Wei Xiaotao, Huang Houkuan, Tian Shengfeng</i>	440
A Hybrid Tabu Search Method for Assembly Line Balancing <i>Supaporn Suwannarongsri, Sunpasit Limnararat, Deacha Puangdownreong</i>	444
New Results on Observations Selection <i>R. T. Peres, C. E. Pedreira</i>	450
Key Factors in Optimal Design of MR Device except Magnetic Circuits <i>Likang Yang, Fubin Duan, E. Anders</i>	454
Study on Model and Control System of Variable-Speed Pitch-Controlled Wind Turbine <i>Dingguo Wu, Zhixin Wang</i>	460
The Model and Analysis of Conformity in Opinion Formation <i>Zhang Li, Liu Yun</i>	464
Monte Carlo Simulation to Propose Improvements of an Alkyd Resin Process <i>Enrique Arce-Medina</i>	469
Modeling of Mode-Locked Lasers <i>Muddassir Iqbal, Z. Zheng, Tian Yu</i>	474
AVR Virtual Environment in the New Generation Human Computer Interaction System <i>Weiwei Xing, Weibin Liu, Baozong Yuan, Wei Lu</i>	480
Comparison of Mixture Formation in Two Combustion Modes in Directly-Injection Diesel <i>Xiaolu Li, Lijun Xu, Ying Li, Hongyan Chen, Jun Wang, Juan Feng, Baoping Xiao, Xuefei Zhao</i>	484
Experience with SSFR Test for Synchronous Generator Model Identification Using Hook-Jeeves Optimization Method <i>Mahdi Pourgholi, M. R. Aghamohammadi, V. J. Majd</i>	489
Research on Correlation of Rolling Force and Monitoring Automatic Gauge Control Systems <i>Yun-Feng Zhong, Shu-Bin Tan, Xin-He Xu</i>	495
Analysis on the Correlation between FDI and Economic Increase in Yangtze Delta and its Squeezing-In and out Effect <i>Guoxin Wu, Yu Sun</i>	499
Simulation Models for the Dispersion of Sewage Outfalls along the West Coast of Mumbai, India <i>Lakshmi Vyas, Sapna Vyas</i>	503
Objective Methods of Assessment of Influence of Alcohol on Driving Safety – Study Performed Driving Simulators <i>Roman Pieknik, Stanislav Novotny, Petr Bouchner</i>	509

Design and Implementation to Intelligent Examination System for e-Business Application Operation <i>Xin Jin, YanLin Ma</i>	514
The Strategic Analysis, Optimizing Control, Sick Treatment, Harmonious Simulation of Intelligent Transportation Decision Support System Based on Set Pair Analysis <i>Jingjing Li, Zhongxiong He</i>	518

Authors Index SMO 2007

- Abolhassani, H. 201
Aghamohammadi, M. R. 489
Ahlan, A. R. 290
Ahn, J. - M. 352
Amirbekyan, A. 37
Anders, E. 454
Andrade Gonzalez, E. A. 85
Andrei, H. 285
Andrei, P. C. 285
Aparisi, F. 321
Arce-Medina, E. 469
Aziz, A. A. 290
Bara, A. 415
Bidgoli, H. S. 364
Bologa, R. 415
Bonanno, G. 263
Bouchner, P. 509
Burguburu, S. 46
Byun, J. - K. 352
Caciula, I. 285
Candea, I. 197
Carpio, J. M. 219
Cepisca, C. 285
Chang, C. - I. 52, 213, 405
Chang, C. C. 110, 116
Chang, S. - Y. 177
Chen Ling 409
Chen, H. 484
Chen, H. - J. 52, 213, 405
Chen, M. - Y. 153
Chen, R. - C. 182
Chen, T. 165, 171
Chen, T. - Y. 310
Cheng, Y. L. 310
Chetty, G. 89
Chu, F. - F. 110
Chuang, Y. - Y. 146
Chueh, H. - E. 52, 213, 405
Cuevas, F. J. 219
De Luna, M. 321
Deacha, P. 251, 444
Duan, F. 454
Elhag, T. M. S. 302
Estivill-Castro, V. 37
Fan, N. 64
Farahi, M. H. 58
Feng, J. 79, 484
Feng, J. - K. 400
Gao, C. 1, 381
Gines, L. M. 387
Goto, H. 20
Grigorescu, S. D. 285
Guo, Y. 375
Han, H. 426
Han, J. 95
Hao, W. - H. 52, 213, 405
He, Z. 518
Heydari, A. 58
Heydari, A. A. 58
Hong, B. 79
Hosseini, M. 201
Huang, D. 140
Huang, H. - Y. 146, 440
Huang, Z. 165
Hung, P. - H. 182
Ikeda, T. 75
Innet, S. 128
Iqbal, M. 358, 474
Iracleous, D. P. 188
Ishiki, M. 75
Jan, N. - Y. 69
Jiang, J. 12
Jimenez, J. F. 219
Jin, X. 514
Kanaya, A. 75
Karunasena, W. 257
Kawamura, T. 245, 269, 420
Kim, W. - W. 352
Ko, J. - S. 352
Kulworawanichpong, T. 251, 430, 435
Kuramochi, K. 245
Kurzynski, M. 26
Kwon, J. - K. 352
Lee, D. - Y. 352
Lee, K. - S. 99
Li, H. 426
Li, J. 518
Li, W. 64, 275
Li, X. 484
Li, Y. 484
Limnarat, S. 444
Lin, C. - M. 375, 393, 400
Lin, N. P. 52, 69
Lin, N. P. 213, 405
Lin, Y. - H. 146, 153, 177
Liu, H. 79
Liu, W. 281, 480
Lloret Mauri, J. 387,
Lu, W. 281, 480
Lungu, I. 415
Luo, B. 326
Lupu, A. R. 415
Ma, J. 171
Ma, W. 89, 171
Ma, Y. 514
Maalouf, L. 346
Mahdavinejad, R. A. 364, 370
Majd, V. J. 489
Man Cao 171
Manolakos, E. 188
Mansour, N. 346
Marcelet, M. 46
Mehraban, M. 364
Moschella, F. 263
Munteanu, V. 191
Murata, Y. 75
Nasith, L. 225
Novotny, S. 509
Nuntasen, N. 128
Onuma, M. 20
Oonsivilai, A. 430
Oonsivilai, A. 159
Oonsivilai, R. 159
Pantano, P. 263
Pao-La-Or, P. 430, 435
Park, J. 99
Peaiyoung, S. 435
Pediroda, V. 46
Pedreira, C. E. 450
Peres, R. T. 450
Peter, J. 46
Pieknik, R. 509
Pourgholi, M. 489
Puchala, E. 32
Purcarea, R. 191
Rakheja, S. 332
Rao, Y. V. 231
Regoli, C. 341
Rewak, A. 32
Reyes Ayala, M. 85
Rinaudo, S. 263
Rosales Garcia, J. 85
Rui, G. 104
Saidfudin, M. M. 290
Salinla, C. 225
Satayopas, B. 134
Satoh, N. 75
Sawantit, S. 207
Sayyadi, M. H. 201
Shah, B. 231
Shao, S. 326
Sharma, D. 89
Shida, K. 75

Authors Index SMO 2007

- Siriphan, W. 239
Sirirut, V. 239
Sivakugan, N. 257
Sohaimi, Z. 290
Sony, E. 231
Spinei, F. 285
Stanciu, A. 191
Su, C. - Y. 332
Sugahara, K. 245, 269, 420
Sujitjorn, S. 435
Sun, D. 326
Sun, Y. 1, 381, 499
Supaporn, S. 251, 444
Suwat, K. 207
Tadaaki, S. 269
Tagawa, K. 296
Takayama, T. 75
Talarico, V. 263
Tan, S. - B. 495
Teodorescu, H. 191, 197
Tian, S. 440
Tong, Y. 140
Toshioka, K. 420
Tran, D. 89
Tseng, C. - T. 116
Uesugi, T. 269
Vallikul, P. 207
Vardarajan, R. 231
Vlase, S. 197
Vongmahadlek, C. 134
Vyas, L. 503
Vyas, S. 503
Wan, D. 165
Wang, E. - R. 332
Wang, H. 332
Wang, J. 484
Wang, S. - F. 400
Wang, W. - J. 332
Wang, Y. 95
Wang, Z. 64, 460
Wei, R. Y. 257
Wei, X. 440
Wettayaprasit, W. 225, 239
Wozniak, M. 315
Wu, D. 460
Wu, G. 499
Wu, M. - C. 182
Wu, P. 122
Wu, R. - L. 409
Xiao, B. 484
Xing, W. 281, 480
Xu, L. 484
Xu, X. - H. 495
Xu, Z. 426
Yamada, K. 20
Yan, L. 165
Yang, L. 454
Yang, Y. 140
Yu, G. 326
Yu, T. 358, 474
Yuan, B. 281, 480
Yue, H. 375, 393
Yun, L. 464
Zhang, B. 122
Zhang, C. 12
Zhang, H. 257
Zhang, L. 464
Zhang, R. 12
Zhang, S. 257
Zhang, X. - P. 104, 409
Zhao, X. 484
Zhao, Y. 95
Zheng, J. 6
Zheng, Z. 358, 474
Zhong, X. 275
Zhong, Y. - F. 495
Zhou, H. 140
Zhou, L. 6
Zhou, Y. 302
Zhou, Z. 95
Zhu, D. 426
Zhu, J. 99