

Editors: Prof. Roberto Revetria (Italy), Prof. Antonella Cecchi (Italy), Prof. Maurizio Schenone (Italy), Prof. Valeri Mladenov (Bulgaria), Prof. Alexander Zemliak (Belgium)

SYSTEM SCIENCE and SIMULATION in ENGINEERING

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on SYSTEM SCIENCE and SIMULATION in ENGINEERING
(ICOSSE '07)

(INCLUDES the SYMPOSIUM "Advances in Naval Science, Research and Education")

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Preface

Each year the WSEAS International Conference on System Science and Simulation in Engineering attracts a number of quality research papers from well-established and leading researchers in all the areas of Systems Theory, Applied Computing, Computational and Numerical Mathematics. Meetings have always special appeal to young researchers and are characterized by their friendly atmosphere in which delegates at different stages of their careers can talk to each other. Scientists within the areas of applied mathematics, science and engineering attend establishing new collaborations within present or upcoming research projects, exchanging useful ideas, presenting recent research results and participating in discussions and establishing new academic collaborations linking the academia with the industry.

This conference has also already received a great attention among the scientific community commencing in 2001 in Rethymno (Greece) and continuing in 2002 in Rio De Janeiro, in 2003 in New York, in 2004 again in Rio De Janeiro until in 2005 and 2006 in Tenerife, Spain. This year (2007), the WSEAS International Conference on **System Science and Simulation in Engineering (ICOSSSE'07)** was held in Venice, Italy, November 21-23, 2007. The book you are currently holding contains the Proceedings of ICOSSSE'07.

The Plenary Speeches of ICOSSSE'07 were:

- *Power Electronics - Its Impact on Energy and Environment*, by Prof. Bimal K. Bose, The University of Tennessee, TN, USA.
- *Multiscale modeling of phase transitions dynamics*, by Prof. Bjorn Kvamme, University of Bergen, Norway.
- *Simulation of Electromagnetic Devices using Coupled Models*, by Assoc. Prof. Ion Carstea, University Of Craiova, Romania.
- *Parameter Estimation on Manifolds*, by Prof. Karlheinz Spindler, Fachhochschule Wiesbaden, Germany.
- *Logistics Information Systems (LOGIS)*, by Prof. Egils Ginters, Vidzeme University College, Latvia.
- *Applied Modeling & Simulation in Industry and Academia*, by Prof. Eng. Roberto Revetria, University of Genoa and Prof. Eng. Maurizio Schenone, Turni Polytechnic, Italy.

We would like to thank all members of the organizing laboratories for their contribution to the organization of the conference.

The contents of this Book are also published in the CD-ROM Proceedings of the Conference. Both will be sent to the WSEAS collaborating indices after the conference: www.worldses.org/indexes.

In addition, papers of this book are permanently available to all the scientific community via the WSEAS E-Library.

Expanded and enhanced versions of papers published in these conference proceedings are also going to be considered for possible publication in one of the WSEAS journals that participate in the major International Scientific Indices (Elsevier, Scopus, EI, Compendex, INSPEC, CSA see: www.worldses.org/indexes) these papers must be of high-quality (break-through work) and a new round of a very strict review will follow. (No additional fee will be required for the publication of the extended version in a journal).

We cordially thank all the people of WSEAS for their efforts to maintain the high scientific level of conferences, proceedings and journals.

The Editors

**Proceedings of the 6th WSEAS International Conference on
SYSTEM SCIENCE and SIMULATION in ENGINEERING
(ICOSSE '07)
TABLE OF CONTENTS**

Mathematical Modelling and Numerical Simulation of Fluid-Magnetic Particle Flow in a Small Vessel <i>Benchawan Wiwatanapataphee, Kittisak Chayantrakom, Yong-Hong Wu</i>	1
A Solution to the Discrete Optimal Tracking Problem for Linear Systems <i>Corneliu Botan, Florin Ostafi</i>	7
Constrained Pole Assignment Controller for Delayed Double Integrator System <i>Katarina Zakova</i>	12
Performance Evaluation of an Interior Point Filter Line Search Method for Constrained Optimization <i>M. Fernanda P. Costa, Edite M. G. P. Fernandes</i>	18
Mathematical Simulation for Non-Equilibrium Droplet Evaporation <i>N. N. Smirnov, A. V. Kulchitskiy, V. R. Dushin, E. S. Osadchaya, V. A. Nerchenko</i>	24
Integrate Clustering and Mathematical Programming for Supporting Reverse Logistics Optimization: Methodology and Case Study <i>P. Giribone, R. Revetria, F. Oliva, M. Schenone, E. Nikolaeva Nikolova, G. Chavdarova Peneva</i>	30
Simulating CO2 Storage in Saline Aquifers with Improved code RCB <i>Shunping Liu, Bjorn Kvamme</i>	38
A Domain Decomposition Approach for Coupled Fields in Induction Heating Devices <i>Ion Carstea, Daniela Carstea, Alexandru Adrian Carstea</i>	63
Simulation of Electromagnetic Devices using Coupled Models <i>Ion Carstea, Daniela Carstea, Alexandru Adrian Carstea</i>	71
A Modelling Approach for the Overall Ship Propulsion Plant Simulation <i>G. P. Theotokatos</i>	80
The Location - Routing Problem: An Innovative Approach <i>L. Guerra, T. Murino, E. Romano</i>	88
Gear Noise Detection. An Integrated Method using Fourier and Wavelet Approach <i>Vincenzo Niola, Giuseppe Quaremba, Aniello Forcelli</i>	96
Simulation and Design of Nonlinear Controllers based on Distributions Theory <i>Emil Pop, Monica Leba</i>	103
State-Space Control Model of Tokamak Reactors <i>Izaskun Garrido, Aitor Garrido, Oscar Barambones, Patxi Alkorta</i>	109
Study of Matching Errors in Unit Element Approach of Current-Steering Segmented DAC Design <i>Mircea Tomoroga, Lucian Jurca</i>	115
Stability Analysis of Wilson-θ Method with Modified Acceleration <i>Shuchuan Zhang</i>	121
Numerical Evaluation of Finite Part Integrals. Development and Comparison of Newton-Cotes Type Methods using Local Quadratic Interpolation <i>G. J. Tsamasphyros, S. P. Filopoulos</i>	124

A CMOS Gm-C State-Space Active Filter for High Frequences Synthesized by Intermediate Transfer Functions Method	129
<i>Elena Doicaru, Dan-Ovidiu Andrei</i>	
Stabilization Models and Structures for Move of very Maneuverable Flying Objects	135
<i>Romulus Lungu, Mihai Lungu, Nicolae Jula, Costin Cepisca</i>	
Design of a Multimode Interference-based 1x2 Wavelength-Division-Demultiplexer on an Air-hole Photonic Crystal	139
<i>Ming-Feng Lu, Chung-Yu Hong, Yu-Lin Yang, Yang-Tung Huang</i>	
Influence of Parameters of Gas Metal Arc Welding on Macrostructures and Mechanical Properties of Austenitic Stainless Steels	144
<i>S. Nansaarnng, C. Chaisang</i>	
A Semantic Approach for Discovering Egovernment Services	153
<i>Efthimios Tambouris, Nikolaos Loutas, Vassilios Peristeras, Konstantinos Tarabanis</i>	
Command Laws for Rockets' Motion Stabilisation	159
<i>Romulus Lungu, Mihai Lungu, Nicolae Jula, Costin Cepisca</i>	
A Study of Inspector's Behavior for Increment Stopping Strategies	163
<i>S. Kaewkuekool, S. Kongsuwan, S. Sangmun</i>	
Some Aspects Regarding Testing Procedures for 9x19 mm Ammunition System while Evaluating Ballistic and Safety Characteristics During Life Cycle	168
<i>Traian Rotariu, Doru Goga, Viorel Tiganescu, Tudor Chereches, Marius Carmaci</i>	
Information System Development for Riga Coach Terminal	173
<i>Vaira Gromule, Irina Yatskiv</i>	
Transportation Mode Selection for Turkish Automotive Industry Using Analytic Network Process	179
<i>Erkam Guresen</i>	
A Methodological Approach to Develop an Integrated Simulation System in Manufacturing Processes	184
<i>M. Gallo, G. Guizzi, V. Zoppoli</i>	
Simulation of UML Models using ARENA	190
<i>Artis Teilans, Yuri Merkuryev, Andris Grinbergs</i>	
New Warehouse Design Methodology at Strategic and Operational Level	196
<i>Roman Buil, Miquel Angel Piera</i>	
An Integrated Model of Logistic Networks for Locating Production and Distribution Points	202
<i>E. Romano, L. C. Santillo, P. Zoppoli</i>	
Determination of Band Position for Evaluation of DNA/RNA Molecular Weight from Gel Electrophoretic Image	212
<i>Frantisek Racek, Teodor Balaz, Martin Macko, Jaroslav Tresnak, J. Benedik</i>	
Communication in Distributed Simulation Environment	217
<i>Egils Ginters, Artis Silins, Janis Andrusaitis</i>	
Feeding an Information Determine Optic Atmosphere Turbulence into the Simulation Model of a Seeker of Homing Missiles	222
<i>Teodor Balaz, Radek Dorskocil, Martin Macko</i>	
Improved Fast Motion Block Matching Based Adaptive Rood Pattern Search	227
<i>Dhaha Dia, Mohamed Atri, Rached Tourki</i>	

A CFD Study of Dimensional Scaling effect on the Combustion of Hydrogen-Air Mixture in Micro-Scale Chambers with Same Shape Aspect Ratio <i>R. Kamali, A. R. Binesh</i>	231
Combining Multibody Dynamics, Finite Elements Method and Fluid Film Lubrication to Describe Hermetic Compressor Dynamics <i>Ilmar Santos, Edgar Estupinan</i>	237
Handgun Mechanisms Analysis <i>Marius Valeriu Cirmaci, Octavian Dumitru Orban, Viorel Tudor Tigianescu, Traian Rotariu</i>	243
CAE Techniques Investigation of Rocket Parts Malfunction <i>Lucian Istode, Marius Valeriu Cirmaci</i>	249
Application for Symbolic Analysis of Linear Circuits Including Switched Circuits <i>Jiri Hospodka, Jan Bicak</i>	254
A Numerical Analysis Of the Loading Capacity of an Elbow <i>Nastasescu Vasile, Bunea Marian</i>	259
Finite Elements Method in Split Hopkinson Pressure Bar Developing Process <i>Rotariu Adrian, Bugaru Mihai, Chereches Tudor</i>	263
Johnson-Cook Constitutive Model for OL 37 Steel <i>Eugen Trana, Teodora Zecheru, Mihai Bugaru, Tudor Chereches</i>	269
Simulating Regional Logistics: the North-Western Italy Case-Study <i>Alberto De Marco, Carlo Rafele</i>	274
CMOS Implementation of Viterbi Decoder <i>Manjula Tambakad, S. G. Kambalimath, A. V. Sutagundar</i>	280
Dynamic Simulation Model of a Two-Fluids Heat Exchanger Based on a Numerical Discretization Method <i>Stefano Bracco, Ilka Faccioli, Michele Troilo</i>	285
Detection and Tracking of an Explosives-Carrying Human with Odor-Sensor Based Multisensor Networks <i>Ahmet Kuzu, Metin Gokasan, Seta Bogosyan</i>	294
A Condition Based Maintenance Simulation Model for Controlling the Yield of Pick and Place Machines <i>M. Gallo, G. Guizzi, P. Zoppoli</i>	299
A New Electromagnetism-like Algorithm with a Population Shrinking Strategy <i>Ana Maria A. C. Rocha, Edite M.G.P. Fernandes</i>	307
An Augmented Lagrangian Pattern Search Method for Optimal WWTP Designs <i>I. A. C. P. Espirito Santo, E. M. G. P. Fernandes, M. M. Araujo, E. C. Ferreira</i>	313
Hybrid Model Based Identification of Biochemical Processes using Sensitivity Equations Approach <i>Vytautas Galvanauskas, Rimvydas Simutis</i>	319
Security Problems of RFID Authentication Protocols <i>Valdis Pornieks, Egils Ginters</i>	325
Image Analysis of Radial Symmetrical Samples <i>Petr Ponizil, Vladimir Pavlinek, Takeshi Kitano, Tomas Drimal</i>	330
Numerical Simulation of the Free Convection Flow in Porous Medium <i>Aurel Chirita, Horia Ene, Bogdan Nicolescu, Ion Carstea</i>	334

An Agent-based System for Sales and Operations Planning in Manufacturing Supply Chains <i>Massimo Paolucci, Roberto Revetria, Flavio Tonelli</i>	339
A Stochastic Simulation Model for Representing a Clinical Pathology Laboratory Workout <i>P. Giribone, R. Revetria, F. Oliva, M. Schenone</i>	346
Modeling and Simulation for Supporting Investigative Inquiries in the JP and PS Sector <i>Roberto Revetria, Francesca Oliva, Enrico Briano</i>	352
The Education of Naval Ship Designers in the U.S.A. <i>Thomas Lamb, Norbert Doerry, James Webster, John Hootman</i>	356
Design and Simulation of a Micromachined Accelerometer <i>Hazem Hassan, Hassan Ibrahim, Salah Elsedawy</i>	363
Finite Element Method in Applications of Magneto hydrodynamics <i>Karel Frana, Jorg Stiller</i>	370
16-Channel Optical Add-Drop Multiplexer Consisting of a Planar Waveguide Concave Grating <i>Chun-Ting Lin, Yang-Tung Huang, Jung-Yaw Huang</i>	376
Task Effectiveness Analysis inside S.E.S.T.AN.T.E. Application <i>Francesco Perra, Natalino Dazzi</i>	380
Mode I Fatigue Crack Growth Evaluation at Notches <i>A. Savaidis, G. Tsamasphyros, G. Savaidis, M. Vormwald</i>	387
Three Dimensional Finite Volume Solutions of Seepage and Uplift in Homogonous and Isotropic Foundations of Gravity Dams <i>Saeed-Reza Sabbagh-Yazdi, Babak Bayat, Nikos E. Mastorakis</i>	393
Towards a Anthropomorphism Theory for Human-like Machines Based on Systems Science <i>Bertrand Tondu</i>	399
A Robust Optimal State Feedback Control Design <i>Anurag Kumar Swami, Akhilesh Swarup</i>	406
Evolution of Simple Behavior Patterns for Autonomous Robotic Agent <i>Roman Neruda, Stanislav Slusny, Petra Vidnerova</i>	411

Authors Index

Adrian, R.	263	Gokasan, M.	294	Ponizil, P.	330
Alkorta, P.	109	Grinbergs, A.	190	Pop, E.	103
Andrei, D.	129	Gromule, V.	173	Pornieks, V.	325
Andrusaitis, J.	217	Guerra, L.	88	Quaremba, G.	96
Araujo, M. M.	313	Guizzi, G.	184, 299	Racek, F.	212
Atri, M.	227	Guresen, E.	179	Rafele, C.	274
Balaz, T.	212, 222	Hassan, H.	363	Revetria, R.	30, 339, 346, 352
Barambones, O.	109	Hong, C.	139	Rocha, A.	307
Bayat, B.	393	Hootman, J.	356	Romano, E.	88, 202
Benedik, J.	212	Hospodka, J.	254	Rotariu, T.	168, 243
Bicak, J.	254	Huang, J.	376	Sabbagh-Yazdi, S.	393
Binesh, A. R.	231	Huang, Y.	139, 376	Sangmun, S.	163
Bogosyan, S.	294	Ibrahim, H.	363	Santillo, L. C.	202
Botan, C.	7	Istode, L.	249	Santo, I. A. C. P.	313
Bracco, S.	285	Jula, N.	135, 159	Santos, I.	237
Briano, E.	352	Jurca, L.	115	Savaidis, A.	387
Bugaru, M.	269	Kaewkuekool, S.	163	Savaidis, G.	387
Buil, R.	196	Kamali, R.	231	Schenone, M.	30, 346
Carmaci, M.	168	Kambalimath, S. G.	280	Silins, A.	217
Carstea, A.	63, 71	Kitano, T.	330	Simutis, R.	319
Carstea, D.	63, 71	Kongsuwan, S.	163	Slusny, S.	411
Carstea, I.	63, 71, 334	Kulchitskiy, A. V.	24	Smirnov, N. N.	24
Cepisca, C.	135, 159	Kuzu, A.	294	Stiller, J.	370
Chaisang, C.	144	Kvamme, B.	38	Sutagundar, A. V.	280
Chayantrakom, K.	1	Lamb, T.	356	Swami, A.	406
Chereches, T.	168, 263, 269	Leba, M.	103	Swarup, A.	406
Chirita, A.	334	Lin, C.	376	Tambakad, M.	280
Cirmaci, M.	243, 249	Liu, S.	38	Tambouris, E.	153
Costa, M.	18	Loutas, N.	153	Tarabanis, K.	153
Dazzi, N.	380	Lu, M.	139	Teilans, A.	190
De Marco, A.	274	Lungu, M.	135, 159	Theotokatos, G. P.	80
Dia, D.	227	Lungu, R.	135, 159	Tiganescu, V.	168, 243
Doerry, N.	356	Macko, M.	212, 222	Tomoroga, M.	115
Doicaru, E.	129	Marian, B.	259	Tondu, B.	399
Doskocil, R.	222	Mastorakis, N.	393	Tonelli, F.	339
Drimal, T.	330	Merkuryev, Y.	190	Tourki, R.	227
Dushin, V. R.	24	Mihai, B.	263	Trana, E.	269
Elsedawy, S.	363	Murino, T.	88	Tresnak, J.	212
Ene, H.	334	Nansaarn, S.	144	Troilo, M.	285
Estupinan, Edgar	237	Nerchenko, V. A.	24	Tsamasphyros, G. J.	124, 387
Faccioli, I.	285	Neruda, R.	411	Vasile, N.	259
Fernandes, E.	18, 307	Nicolescu, B.	334	Vidnerova, P.	411
Fernandes, E. M. G. P.	313	Nikolova, E.	30	Vormwald, M.	387
Ferreira, E. C.	313	Niola, V.	96	Webster, J.	356
Filopoulos, S. P.	124	Oliva, F.	30, 346, 352	Wiwatanapataphee, B.	1
Forcelli, A.	96	Orban, O.	243	Wu, Y.	1
Frana, K.	370	Osadchaya, E. S.	24	Yang, Y.	139
Gallo, M.	184, 299	Ostafi, F.	7	Yatskiv, I.	173
Galvanauskas, V.	319	Paolucci, M.	339	Zakova, K.	12
Garrido, A.	109	Pavlinek, V.	330	Zecheru, T.	269
Garrido, I.	109	Peneva, G.	30	Zhang, S.	121
Ginters, E.	217, 325	Peristeras, V.	153	Zoppoli, P.	202, 299
Giribone, P.	30, 346	Perra, F.	380	Zoppoli, V.	184
Goga, D.	168	Piera, M.	196		

Authors Index