



## **8th WSEAS CSCC (CSCC 2004)**

Vouliagmeni (Suburb of Athens), Greece

Hotel ARMONIA: [www.armonia.gr](http://www.armonia.gr) ,  
1 Armonias str., 16671, Vouliagmeni, Athens, Greece

<http://www.wseas.org>

- 8th WSEAS International Conference on CIRCUITS
- 8th WSEAS International Conference on SYSTEMS  
International Symposium: 2nd WSEAS Intern. Conf. on MULTIDIMENSIONAL  
SYSTEMS (MDS 2004)
- 8th WSEAS International Conference on COMMUNICATIONS
- 8th WSEAS International Conference on COMPUTERS

**JULY 12, 2004**

ROOM A+B+C (unified): 08:00: OPENING

Plenary Speeches common for CIRCUITS, SYSTEMS,  
COMMUNICATIONS, COMPUTERS

PLENARY LECTURE A': 08:00-08:45

**Information Systems & Modeling for Counterterrorism**

by

Dr. Alex Polymenopoulos  
ADB Consulting LLC  
2533 N. Carson Street, Suite 5324  
Carson City, NV 89706, USA

Abstract: Bioterrorism is a clear danger to the world. It can be produced at small, covert facilities, carried in small vials and dispensed into water and food supplies. Hundreds of people could be infected before medical establishments discover the situation. Agents such as anthrax, botulism, plague, smallpox, and tularemia are transmitted by food contamination, infected animals, fleas, inhalation and infected humans. They all lead to death. This presentation describes information technology applications for early disease detection and for setting up linked prophylaxis clinics and emergency operations centers. It also discusses interoperability of medical facilities, law enforcement and health departments, emergency response resources, intelligence collection/situational reporting and mobile command vehicles through the specification of global requirements and standards. Links to moving and stopped mobile command centers are established using grid wireless networks. Collection of pre-bio-terrorism indicators is combined with medical symptoms reporting to provide early warning and medical preparedness. There is a great challenge to develop a network of interconnected models that trigger early warnings and construct situational pictures for emergency response units. Models employ Bayesian methods to interpret symptoms from differing sources to estimate likely bioterrorism incidents. Behavioral models of terrorist groups and pre-incident operations provide early warning alerts for positioning security and medical resources. A unified framework is presented that integrates interoperable systems, communications (voice and data), software tools and procedures to achieve an early warning and integrated response capability for homeland security. An example is described of a system implementation that demonstrates these concepts. This system was recently tested in a smallpox exercise to ensure interoperability and early warning readiness as well as ensuring that all citizens are inoculated in the necessary timeframe.

PLENARY LECTURE B': 08:45-09:30

**Resource Management in Mobile Telephony.  
RRM in Heterogeneous Networking Environments of the 4th Generation**

Professor Protonotarios Emmanuel  
National Technical University of Athens  
School of Electrical and Computer Engineering  
Division of Communication, Electronic and Information Engineering  
Heron Polytechniou 9  
Athens, 157 73  
Greece

Congestion management in cellular networks is of prime importance for the mobile network operators of present and future generation. Nowadays cellular operators utilize improved planning techniques for enhanced capacity management, but on the other hand the number of mobile subscribers rapidly increases and additionally, new data-technologies for wireless access add extra traffic to the already overloaded networks, often causing serious problems to their performance. This presentation describes a radio resource management architecture for increasing the efficiency of cellular networks especially during overloading periods.

PLENARY LECTURE C': 09:30-10:15

**from scans to sutures: computer-assisted orthopedic surgery in the twenty-first century**

Randy Ellis,  
PhDDepartments of Computing,  
Mechanical Engineering, and Surgery Queen's University, Kingston, Canada

Abstract: Computer-assisted surgery is the process of using medical images, such as CT scans, X-ray fluoroscopy, or 3D ultrasound, to improve patient care. A typical surgical procedure begins by acquiring and processing a CT scan with specially developed image-analysis software. A surgeon then performs a "virtual surgery" on the patient to develop a preoperative plan. In the operating room the medical image is registered to the patient's anatomy by finding an optimal rigid-body transformation. This transformation allows an object or motion in one coordinate frame to be represented in the other frame, and thus a surgeon can visualize the location of an instrument deep within concealed anatomy while avoiding structures at risk. The operating surgeon can also use computer-tracked fluoroscopy or ultrasound for 3D guidance. For the past five years, our interdisciplinary research group has been investigating fundamental problems in orthopedic surgery of bones and joints. This talk will be an overview of the problems and solutions that have been tested in a set of pilot clinical trials in which we have treated more than 250 patients for early or advanced arthritis, poorly healed bone fractures, and treatment of deep bone tumors. The talk will conclude with the proposed design of a new kind of operating room that integrates real-time imaging and tracking with telecommunication to offsite biomechanical laboratories, aimed at improving the way in which surgeons plan and perform complex surgical procedures.

PLENARY LECTURE D': 10:15-11:00

**The NPOESS Spacecraft and Payload Suite.  
A Next Generation Low Earth Orbit Observation Platform**

Hal J. Bloom  
NPOESS Integrated Program Office  
USA

*Abstract:* To meet user-validated requirements for 55 geophysical parameters. POESS will deliver global Stored Mission Data (SMD) to four U.S. centers for processing and distribution, with 95% of the data being delivered in less than 28 minutes from the time of collection. The advanced technology visible, infrared, and microwave imagers and sounders that will fly on NPOESS will deliver higher spatial and temporal resolution atmospheric, oceanic, terrestrial, climatic, and solar-geophysical data, enabling more accurate short-term weather forecasts and severe storm warnings, as well as serving the data continuity requirements for improved global climate change assessment and prediction. The NPOESS team (IPO, Northrop Grumman, and its subcontractors) is well along the path to creating a high performance, polar-orbiting satellite system that will be more responsive to user requirements, deliver more capability at less cost, and provide sustained, space-based measurements as a cornerstone of an Integrated Global Observing System. The National Polar-orbiting Operational Environmental Satellite System (NPOESS) and its managing Integrated Program Office (IPO) were established by a 1994 Presidential Decision Directive to converge existing Air Force, NASA & NOAA polar-orbiting

satellites into an integrated national program. It is the follow on mission to the TIROS and DMSP satellites, carrying the next generation of weather instruments. NPOESS will exemplify the capabilities and challenges of future low earth orbit weather observation spacecraft. Earth observing requirements from the weather and climate science communities have significantly increased the demands on spacecraft. Increases in the number of phenomena observed, increases in their resolution and accuracy, and shorter refresh and reporting times put significant demands on spacecraft and ground systems. The impact of these new requirements on spacecraft are more instruments, high accuracy stable spacecraft platforms with higher data rates and more frequent data communications to the ground.

(coffee-break around the swimming-pool: 11:00-11:30)

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CONFERENCE: 8th WSEAS International Conference on CIRCUITS  
SESSION: Electronics and Circuit Analysis

ROOM A', 11:30- 14:00

(coffee-break around the swimming-pool: 11:00-11:30)

Chair: Spyros Tragoudas

A New CMOS Image Sensor with Pixel-Shared Design and Split-Path Readout Circuit	<i>Hwang-cherng Chow and Yung-kuo Ho</i>	487-742
A New Low Voltage CMOS 1-Bit Full Adder for Low Power Applications	<i>Hwang-cherng Chow, I-chyn Wey and Chun-hua Huang</i>	487-741
Compact Test Generation for Non-Robustly Testable PDFs	<i>Maria K. Michael and Spyros Tragoudas</i>	487-777
A Direct Method to Optimize the Ge Profile for Better Noise Performance in High Base Doping SiGe DHBTs	<i>Brishbhan Panwar and Gagan Khanduri</i>	487-768
Parameter extraction method for ultra-thin oxide mosfets using small-signal channel conductance measurement	<i>Kow-ming Chang, Han-pang Wang</i>	487-772

CONFERENCE: 8th WSEAS International Conference on SYSTEMS  
SPECIAL SESSION: Intelligent Information Systems

ROOM B', 11:30- 14:00  
 (coffee-break around the swimming-pool: 11:00-11:30)

Chair: Abdel- Badeeh M. Salem

A Learning Fuzzy System for Intelligent Conversation	<i>Nouhad Rizk</i>	487-113
Image retrieval based on invariant features and histogram refinement	<i>Ibrahim El-henawy, Mohamed Eisa, Hans Burkhardt</i>	487-142
On the Design of a WebCT for Online E-Learning Course in Economic Information System	<i>Ibrahiem M. M. El Emary, Jihad Abu Sondos</i>	487-334
Convolutional codes simulation using Matlab	<i>Eugen Petac, Abdel-Rahman Alzoubaidi</i>	487-150
DatComNet: Designing an Intelligent Visual Tool for Teaching Data Communication and Network Information Systems	<i>Abdel Badeea Salem &amp; Ibrahiem M. M. El Emary</i>	487-340
Lexical acquisition for information extraction from arabic text documents	<i>Mervat Gheith, Magdy Aboul-Ela, Waleed Arafa</i>	487-143
Comparing discriminant function, logistic regression and neural network for classification of stocks using ROC curve: Evidence from Egyptian Stock Exchange	<i>Medhat Abdelaal</i>	487-169
Applications of SOM magnification to data mining	<i>Erzsébet Merényi, Abha Jain, William H. Farrand</i>	487-528
Towards A Predictive Multi-Agent Model-Based Diagnosis	<i>Nadim Obeid</i>	487-640
Models Assessing Terrorist Activities	<i>James (Bob) Johnson, Alex Polymenopoulos</i>	487-738
Preparing for Bioterrorism through Widespread Information Sharing and Complex Modeling	<i>James (Bob) Johnson, Kelley Stone, Alex Polymenopoulos</i>	487-025

CONFERENCE: 8th WSEAS International Conference on COMMUNICATIONS

INTERNATIONAL WORKSHOP: Cryptography, Data and Network Security (Part I)

ROOM C', 11:30- 14:30  
 (coffee-break around the swimming-pool: 11:00-11:30)

Chair: Nikolaos Bardis, Marilena Mitrouli, Khaled E. A. Negm

A controlled environment for study of burst	<i>Xin Wang, Binxiang Fang</i>	487-644
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high bandwidth attack		
Providing High Availability to Time-Stamping Services Using Threshold Signature	<i>Joseph K. Liu, Karyin Fung, Duncan S. Wong</i>	487-429
SAMARA: Security Architecture Multi-Agent-based Risk Assessment	<i>Gustavo Santana</i>	487-619
Threshold Anonymous Credential System	<i>Karyin Fung, Tony K. Chan, Joseph K. Liu, Duncan S. Wong</i>	487-436
A Study on Encrypted Key exchange using password	<i>Deok-Gyu Lee, Im-Yeong Lee</i>	487-408
Light-Weight Self-Organized Authentication Management For Mobile Ad Hoc Networks by use of Hash Chain	<i>Benny H. Tang, Caren P. Tang, Rosanna Y. Chan, Joseph K. Liu</i>	487-460
ID: A Mandatory Field in IKE?	<i>Zhaohui Cheng, Manos Nistazakis, Richard Comley</i>	487-418
A New E-check System	<i>Joseph K. Liu, Sandy H. Wong, Duncan S. Wong</i>	487-430
Parallel WDM transmission for ultra-high bandwidth remote computer communication	<i>Stamatios V. Kartalopoulos</i>	487-168
A New One Time Password System	<i>Vipul Goyal</i>	487-501
Secure optical links in the next generation dwdm optical networks	<i>Stamatios V. Kartalopoulos</i>	487-167

CONFERENCE: 8th WSEAS International Conference on CIRCUITS

SPECIAL SESSION : Rapid Single-Flux-Quantum (RSFQ) and Switched Capacitor (SC) Circuits

ROOM A', 15:00-16:30

(coffee-break around the swimming-pool: 17:00-17:30)

Chair: V.Mladenov

The Josephson Transmission Line as an Impedance Matching Circuit	<i>Boyko Dimov, Valery Todorov, Valeri Mladenov, F. Herman Uhlmann</i>	487-357
Possible Connections of the Josephson Junctions within the RSFQ Logic Circuits	<i>Boyko Dimov, Valery Todorov, Valeri Mladenov, F. Herman Uhlmann</i>	487-358
Reduction of the gain errors in finite gain insensitive switched-capacitor integrator pair	<i>Nioly Radev, Nikos Mastorakis, Valeri Mladenov</i>	487-228
Minimization of operational amplifiers finite gain effects in switched-capacitor biquads	<i>Nikolay Radev, Nikos Mastorakis, Valeri Mladenov</i>	487-227

CONFERENCE: 8th WSEAS International Conference on SYSTEMS

SPECIAL SESSION: Towards Fuzzy-Neural Computing Systems

ROOM A', 16:30-17:00 after the session "Rapid Single-Flux-Quantum (RSFQ) and Switched Capacitor (SC) Circuits"

(coffee-break around the swimming-pool: 17:00-17:30)

Chair: Dragan Z. Saletic, Dusan M. Velasevic

A New Fuzzy Model of Determining the Severity of Respiratory Failure and Possibilities of Implementation	<i>Dragan Z. Saletic, Dusan M. Velasevic, Nikos E. Mastorakis</i>	487-642
Properties and modeling of partial conjunction/disjunction	<i>Jozo Dujmovic, Henrik Larsen</i>	487-691
An Adaptive Conflict-Resolving Neural-Fuzzy Classifier	<i>Shing Chiang Tan, Machavaram Venkata Chalapathy Rao, Chee Peng Lim</i>	487-219

CONFERENCE: 8th WSEAS International Conference on COMPUTERS

SPECIAL SESSION : Multimedia Communications

ROOM B', 15:00-17:00

(coffee-break around the swimming-pool: 17:00-17:30)

Chair: Z. Bojkovic

TCP/IP over Asynchronous Transfer Mode Multimedia Environment	<i>Zoran Milicevic, Milorad Stanojevic, Zoran Bojkovic</i>	487-156
Multimedia GIS and Location Based Services	<i>Natasa Bojkovic, Snezana Pejicic-Tarle</i>	487-152
MPEG-2 sensitivity to data loss and effects of different packet loss patterns	<i>Dragorad Milovanovic, Vladimir Jovanovic, Zoran Bojkovic</i>	487-154
Traffic engineering for IP networks: tools and challenges	<i>Dragorad Milovanovic, Zoran Bojkovic</i>	487-155
New technologies for broadcast quality video transmission	<i>Sava Pavlovic, Stefan Voll, Dragorad Milovanovic, Zoran Bojkovic</i>	487-153



CONFERENCE: 8th WSEAS International Conference on COMPUTERS

INTERNATIONAL WORKSHOP: Imaging and Image Processing of dynamic processes in biology and medicine

ROOM C', 15:00-17:00 and 17:30-20:30 (continued after the coffee-break around the swimming-pool:  
(coffee-break around the swimming-pool: 17:00-17:30)

Chair: Julian Mattes

Cardiac Segmentation from MRI-Tagged and CT Images	<i>Dimitris Metaxas, Ting Chen, Xiaolei Huang and Leo</i>	487-828
Multi-vector Segmentation of Breast MR Images via Hidden Markov Random Fields	<i>Styliani Petroudi, Georgios Ketsetzis, Michael Brady</i>	487-070
dynamical systems and bio-medical image processing	<i>Jacques Demongeot</i>	487-637
Optimizing Flip Angle Selection in Breast MRI for Accurate Extraction and Visualization of T1 Tissue Relaxation Time	<i>Georgios Ketsetzis and Michael Brady</i>	487-643
Modelling the oscillating calcium-induced anisotro	<i>A. Pustoc'h, T. Boudou, J. Ohayon, Y. Usson, Philippe Tracqui</i>	487-560
Analysis of the micropipette experiment for thin b	<i>Thomas Boudou, Philippe Tracqui, Gerard Finet, J. Ohayon</i>	487-559
Watershed Segmentation of Medical Images with On-The-Fly Seed Generation and Region Merging	<i>I. Stephanakis, G. Anastassopoulos</i>	487-490
The $\delta$ PAI-1 game $\delta$ : towards modelling the Plasminogen Activation system (PAs) dependent migration of cancer cells with the game theory.	<i>F. Delaplace, A. Petrova, M. Malo, F. Maquerlot, R. Fodil, D. Lawrence, G Barlovatz-Meimon,</i>	487-622

CONFERENCE: 8th WSEAS International Conference on SYSTEMS

INTERNATIONAL WORKSHOP: Design, Performance and Data Processing for Spaceborne Environmental Remote Sensing Systems

ROOM D', 15:00-17:00 and 17:30-21:00 (continued after the coffee-break around the swimming-pool:  
(coffee-break around the swimming-pool: 17:00-17:30)

Chair: Bormin Huang

<u>Special Topics after the 4<sup>th</sup> Plenary Lecture.</u> The NPOESS Spacecraft and Payload Suite-	<i>Hal J. Bloom</i>	487-609
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A next generation low earth orbit observation platform		
Investigation of Predictor-based Schemes for Lossless Compression of 3D Hyperspectral Sounder Data	<i>Bormin Huang, Alok Ahuja, Hung-lung Huang, Timothy Schmit, Roger Heymann</i>	487-712
The Evolution of Microwave Radiometers for Remote Sensing of Atmospheric Temperature and Humidity for Satellites, from Nimbus to NPOESS and Beyond	<i>James C. Shiue</i>	487-571
Hyperspectral Data Storage: Prototype Implementation Using	<i>Erik R. Olson, Steven T. Dutcher, Robert O. Knuteson, Ray K. Garcia, Ralph G. Dedecker,</i>	487-632
A Spectroscopic Database System For The Second Generation Vertical Sounders Radiance Simulation: The 2003 Edition Of The Geisa Database	<i>N. Jacquinet-Husson, N.A. Scott, K. Garceran, R. Armante, A. Chedin</i>	487-050
Satellite data analysis with FPGA reconfigurable c	<i>Yongxiang Hu, Yang Cai, Sharon Rodier</i>	487-561
Lossless compression of 3D hyperspectral sounding	<i>Olga Kubasova, Pekka Toivanen, Jarno Mielikainen</i>	487-552
Spectral DPCM for Lossless Compression of 3D Hyperspectral Sounding Data	<i>Jarno Mielikainen, Olga Kubasova, Pekka Toivanen</i>	487-620
Hyperspectral Infrared Measurements Simulation and Collection for GOES-R Sounder Lossless and Lossy Data Compression Study and Beyond	<i>Hung-lung huang, Bormin Huang, Kevin Baggett, Alok Ahuja, Timothy j. Schmit and Roger w. Heymann</i>	487-672
Analysis of CCSDS-ILDC for Remote Sensing Data Compression	<i>Joan Serra-Sagrista, Cristina Fernandez, Fernando Garcia, Francesc Auli</i>	487-614
Global Effective Hyperspectral Cloud Property Atlas for Hyperspectral Sounder Simulator and Processor	<i>Li Guan, Hung-Lung Huang, Elisabeth Weisz, Kevin Baggett</i>	487-664
The GIFTS Fast Model: Clouds, Aerosols and Surface Emissivity	<i>James E. Davies, Hung-Lung Huang and Erik R. Olson</i>	487-594
Japanese Advanced Meteorological Imager	<i>Jeffery J. Puschell</i>	487-681
Using Forward Error Correction Coding to Transmit Compressed Data in GOES-R	<i>Charles Wang and Donald Olsen</i>	487-720
Source Interleaving Mitigation of Bursty Turbo Product Code Output Errors on GOES-R Performance	<i>Donald P. Olsen, Charles C. Wang, and Dean J. Sklar</i>	487-824
Evaluation of Near Lossless Feature of Two On-board Data Compression Algorithms: SAMVQ and HSOCVQ	<i>Shen-En Qian, Martin Bergeron and Allan Hollinger</i>	487-572
Detection of bridges in sar images	<i>Deniz Altin, Mesut Kartal</i>	487-654
Censored Production Rules to General Rule Structure Converter	<i>Nabil M. Hewahi</i>	487-425
Tropospheric Trace Species Sensing FPI— Airborne System Development	<i>Allen Larar, William Cook, Carl Mills, Michael Flood, Jeffery Puschell, Wilbert Skinner</i>	487-727
Source Interleaving Mitigation of Bursty Turbo Product Code Output Errors on GOES-R	<i>Donald P. Olsen, Charles C. Wang, and Dean J. Sklar</i>	487-824

Performance		
A new scheme for MODIS cloud classification	<i>Bormin Huang, Hao Chen, Steve Ackerman, W. Paul Menzel</i>	487-718
Lossy data compression for high resolution imaging	<i>Shawn W. Miller, Jeffery J. Puschell</i>	487-761
An inversion scheme for retrieving surface bidirec	<i>Fu-lai Yu, Mervyn Lynch, Brian White</i>	487-514

CONFERENCE: 8th WSEAS International Conference on COMPUTERS

SPECIAL SESSION : Knowledge Management Techniques and Systems  
ROOM A', 17:30- 20:30  
(coffee-break around the swimming-pool: 17:00-17:30)

Chair: Wei-Shuo Lo, Chun-Yu Chen

The application of knowledge management to the universities technologic general education in Taiwan	<i>Chin-Mou Cheng, Rrong-Lain Ho, Yu-HSuan Chao</i>	487-758
Strategic Application of Knowledge Management to Nourishing Students of Animation Ability	<i>Rong-lain Ho, Cheng-mou Cheng</i>	487-709
Efficient reminding of generalized multi-supported	<i>Wen-yang Lin, Ming-cheng Tseng</i>	487-526
The cultivating model and the structural equation model on application of knowledge management for Senior Vocational School teachers in the Department of Electric Machinery	<i>Kuo-hung Tseng, Mingchang Wu, I-Pin Lu, Yu-Yu Shue</i>	487-646
The Study of Knowledge Management and Organizational Innovation Applied in School Organizations	<i>Szu-Ta Wu, Chen-Ya Tu, Ling-Ying Chou</i>	487-655
the systematic strategy of knowledge management in elementary school administration-the development of distributed object oriented knowledge bank	<i>Chien-hsun Tseng, Chun-yu Chen, Jui-jz Laio</i>	487-666
The Implementation of Reasoning Skills Education i	<i>Mingchang Wu, Chien-Feng Tai</i>	487-553
using unknown for hiding sensitive items in association rule mining	<i>Shyue-Liang Wang, Sachio Ito, Ayat Jafari</i>	487-684
A Study of Practicing Knowledge Getting via Internet Information	<i>Kuo-hung Tseng, Wen-Jiuh Chiang, Chi-Jen Lee, Hwa-Ling Tsai, Hsing-chun Fang</i>	487-641
A Bottom Up Discovery of Generalized Web Browsing	<i>Wei-Shuo Lo, Shyue-Liang Wang, Tzung-Pei Hong</i>	487-540
a study of teachers knowledge management	<i>Chu-z Laio, Chun-yu Chen, Chien-hsun</i>	487-659

strategies in elementary and secondary schools	<i>Tseng</i>	
The Strategy of Knowledge Innovation in Technical College/University in Taiwan	<i>Yu-Hsuan Chao, Chin-Mou Cheng, Rong-Lain Ho</i>	487-770

CONFERENCE: 8th WSEAS International Conference on Computers

INTERNATIONAL WORKSHOP: Advanced Technologies for Education & Health

ROOM C', 17:30-20:30 after the end of the INTERNATIONAL WORKSHOP: Imaging and Image Processing of dynamic processes in biology and medicine

(coffee-break around the swimming-pool: 17:00-17:30)

Chair: Athina Lazakidou

Potential Benefits and Functionalities of a Clinical Information System for Orthopaedic Department	<i>L. Poutsides, P. Vlastarakos, K. Malizos, D. Fotiadis, N.Goulas, A. Lazakidou</i>	487-660
Adapted Signal Processing for Biomedical signal transmission over unreliable connexionless channels	<i>Francis Castanie, Stephane Henrion, Corinne Mailhes</i>	487-505
A Fuzzy Model for Non-Linear Segment-Dependent Equalization of Radiographs Used to Detect Intraperitoneal Free Air	<i>G. Anastassopoulos, I. Stephanakis, A. J. Karayiannakis, D. Mantzaris, C. Simopoulos</i>	487-443
recent advances of the theory and applications of model selection criteria	<i>Alex Karagrigoriou, Kyriakos Matthaiou, Filia Vonta</i>	487-366
Prediction of human microRNA targets using parallel computing	<i>Malik Yousef, Andrei Kouranov, Zissimos Mourelatos, Artemis G. Hatzigeorgiou</i>	487-826
The e-Learning Technologies and the New Hidden Curriculum	<i>Quintina Martin</i>	487-837

**JULY 13, 2004**

CONFERENCE: 8th WSEAS International Conference on CIRCUITS

SESSION: Electronics

ROOM A', 08:00-11:00

(coffee-break around the swimming-pool: 11:00-11:30)

Chair: Karl H. Edelmoser

A Low-Cost CMOS Control System with Complete Analog Signal Processing	<i>Daniel Batas, Klaus Schumacher</i>	487-176
Simulation of Conditions of Realization of Synthesis Processes in Shock-Loaded Powder Systems Ti-C Type	<i>Kolmakova T.V., Kobral I.V.</i>	487-692
IAV: A VHDL Methodology For FPGA Implementation	<i>Ouarda Hachour, Nikos Mastorakis</i>	487-139
High Efficiency DC-to-AC Power Inverter	<i>Karl H. Edelmoser</i>	487-206
A Novel Cascode Differential Amplifier	<i>Y. Bruck, G. Burdo, M. Zelikson, L. Boreysha</i>	487-195
DC actuators and their operation characteristics	<i>Ivo Doležel, Pavel Dvořák, Bohuš Ulrych</i>	487-320
Use of VHDL in rapid prototyping	<i>C.V.Joshi, Alwin.D.Anuse</i>	487-104
Application of systolic architectures and switched capacitor techniques to implement recursive filters	<i>Djamel Chikouche, Raïs El'hadi Bekka</i>	487-105
Performance of shunt active filter in all- electric ship	<i>A.Chaghi , A.Guettafi , A. Benoudjit</i>	487-107
A 23 dB 7GHz Bipolar Wideband Amplifier	<i>Harshal Dharmadhikari, Arvind Sherigar</i>	487-241
A 434 MHz Low Power Quadrature PLL in 0.35- $\mu$ m SOI CMOS	<i>Ahmet Tekin, Ertan Zencir, Douglas Huang, Numan S. Dogan</i>	487-426
New CFOA0-Based Square Wave Oscillator	<i>Mashhour Ban Amer and Mohammad Ibbinni</i>	487-326
Molecular circuits using carbon nanotube multi-terminal junctions	<i>Madhu Menon, Antonis Andriotis and Inna Ponomareva</i>	487-367

CONFERENCE: 8th WSEAS International Conference on COMMUNICATIONS

INTERNATIONAL WORKSHOP: Design architectures and techniques for improving the capacity and resource utilization of networks and network systems.

ROOM B', 08:00-11:00

(coffee-break around the swimming-pool: 11:00-11:30)

Chair: Th. Orphanoudakis

True Software Radio – Future of Communications As We Know It	<i>Ron Hickling, Oleg Panfilov, Tony Turgeon, Michael Yagi</i>	487-773
An Innovative SoC Design for Broadband Residential Applications	<i>D. Economou, N. Mouratidis, G. Lykakis, A. Tavoularis, A. Kostopoulos, A. Manousaridis, G. Konstantoulakis</i>	487-502
Supporting wireless applications over a distributed, agent-based management system	<i>V. Tountopoulos, A.D. Sotiriou, N. Koutsouris, E. Solidakis, P. Kalliaras, V. Stavroulaki, D. Kouis, N. Mitrou</i>	487-453
Integrated Performance Monitoring of hybrid IP/MPLS over Wavelength Division Multiplexing (WDM) networks	<i>Kostas Vaxevanakis, Lampros Raptis, Michalis Ellinas</i>	487-504
Performance evaluation of a distributed credit-based fairness for slotted WDM rings	<i>Ch. Linardakis, H. C. Leligou, J. D. Angelopoulos</i>	487-455
Performance Evaluation of Queue Management Implementations in Network Processing Units	<i>Ch. Kachris, Th. Orphanoudakis, I. Papaefstathiou, G. Kornaros, A. Nikologiannis</i>	487-454
Linux ATM Interface for PowerPC-based Network Embe	<i>Apostolos Meliones, Stergios Spanos</i>	487-511
System Level Performance Comparison of MIMO and SISO Hiperlan/2 Networks	<i>K. Peppas, T. Al-Gizawi, F. Lazarakis, D. Axiotis, A. Moussa</i>	487-471
Applying Quality of Service Extensions to an Open Source Media Streaming Platform	<i>S. Zoi, P. Stathopoulos, P. Papageorgiou, D. Kouis, N. Mitrou</i>	487-452
Network planning and management issues for IP-Enabled DVB-T networks	<i>D. Kouis, V. Tountopoulos, N. Mitrou, M.E. Theologou</i>	487-450

CONFERENCE: 8th WSEAS International Conference on COMPUTERS

SPECIAL SESSION: Web Performance

ROOM C', 08:00-10:00

(coffee-break around the swimming-pool: 11:00-11:30)

Chair: Carlos Juiz García

Incorporating Topic Map Technology in a 3-Tiered Web Based Educational System	<i>Athanasios Hatzigaidas, Anastasia Papastergiou, George Tryfon</i>	487-796
Performance prediction and physical design of J2EE based Web applications	<i>Umesh Bellur, Akhilesh Shirabate</i>	487-346
A framework for multimedia web based applications using the SRMSH approach.	<i>Oscar Martinez Bonastre, Carlos Palau Salvador</i>	487-445
PATH Algorithm for Bottleneck Bandwidth Measuremen	<i>Akshai Aggarwal, Jun Wei</i>	487-541
Workload Evaluation of an E-learning Server	<i>Diego del Blanco, Carlos E. Palau</i>	487-438

Development and evaluation of a course support environment	<i>Andreas Veglis, Andreas Pombortsis</i>	487-222
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CONFERENCE: 8th WSEAS International Conference on COMPUTERS

SPECIAL SESSION: Pervasive Computing and Intelligent Agent Systems

ROOM C', 10:00-11:00 after the end of the Session of "Web Performance"  
(coffee-break around the swimming-pool: 11:00-11:30)

Chair: Alessandro Genco

An Enhanced authentication system for the JADE-S platform	<i>Vincenzo Conti, Salvatore Vitabile, Giovanni Pilato, Filippo Sorbello</i>	487-327
Challenges and requirements of ubiquitous computing	<i>Pivi Kallio</i>	487-413
A fuzzy approach to Bluetooth positioning	<i>Francesco Agostaro, Alessandro Genco, Salvatore Sorce</i>	487-575
The PRAKTOR Metamodel: Mobile Agents as Executable Parametric Object Petri Nets	<i>Dimitris Mostrous Habib Goraine</i>	487-809

CONFERENCE: 8th WSEAS International Conference on COMMUNICATIONS

SPECIAL SESSION: Methods and Applications on Antenna Communications

ROOM D', 08:00-09:00  
(coffee-break around the swimming-pool: 11:00-11:30)

Chair: Humberto César Chaves Fernandes

Double Application of Superconductor and Photonic Material on Antenna Array	<i>Humberto César Chaves Fernandes and Luiz Paulo Rodrigues</i>	487-111
Analysis of the Phased Antenna Array With Photonic Material	<i>Humberto César Chaves Fernandes and Davi Araújo Nascimento</i>	487-110
Change in the Directivity of Planar Array With PBG Substrate	<i>Humberto César Chaves Fernandes and Sérgio Pinheiro Santos</i>	487-112

CONFERENCE: 8th WSEAS International Conference on COMMUNICATIONS

SPECIAL SESSION: Microstrip Antennas for Cellular/ Non Cellular Applications

ROOM D', 09:00-10:00, after the Session "Methods and Applications on Antenna Communications"

(coffee-break around the swimming-pool: 11:00-11:30)

Chair: Hala Elsadek

Multi element fractal rectangular curve patch antenna for indoor access points	<i>George Tsachtsiris, Manos Karaboikis, Constantine Soras, Vassilios Papamichael, Vassilios Makios</i>	487-300
Broad Band U-Shaped PIFA with Dual Band Capability for Bluetooth and WLAN Applications	<i>Hala Elsadek, Dalia Nashaat and Hani Ghali</i>	487-380

CONFERENCE: 8th WSEAS International Conference on COMMUNICATIONS

SPECIAL SESSION: Transition to digital terrestrial television in UHF (DVB-T)

ROOM D', 10:00-11:00, after the Session:" Microstrip Antennas for Cellular/ Non Cellular Applications"

(coffee-break around the swimming-pool: 11:00-11:30)

Chair: Charalambos Mantakas

Mobility Issues in a DVB-T Environment	<i>Daniel Negru, George Xilouris, Ahmed Mehaoua, Evan</i>	487-539
Provisioning of End to end QoS in Diverse Environm	<i>A. kourtis, G. Kormentzas, C. Skianis, G. xilouris</i>	487-517
Modelling TCP performance in mobile DVB-T receiver	<i>Georgios Gardikis, Anastassios Kourtis, Philip Con</i>	487-518

CONFERENCE: 8th WSEAS International Conference on COMPUTERS



SPECIAL SESSION: Reconfigurable Hardware and Applications. Data mining.  
Computational Intelligence

ROOM A', 11:30-13:30

(coffee-break around the swimming-pool: 11:00-11:30)

Chair: Federico García Crespí, Ivan Bruha, Jan Glasa

A note about binary finite fields multiplication on FPGA	<i>F. Garcia Crespí, F. Vicedo, R. Gutierrez, Katya G. Llamazares, P. Garrido, S. Alcaraz, A. Grediaga, J.J. Climent</i>	487-694
Systemic design flow for a des/aes cryptoprocessor	<i>Javier Castillo, Pablo Huerta, José ignacio Martínez torre</i>	487-342
Improving the Performance of the IDEA Cryptographic Algorithm Using FPGAs	<i>Jose M. Granado, Miguel A. Vega, Juan M. Sanchez, Juan A. Gomez</i>	487-297
Methodology of Data Mining: Preprocessing, extracting knowledge, and postprocessing	<i>Ivan Bruha</i>	487-497
Mosaic-based video object segmentation	<i>Liang-hua Chen and Yu-chun Lai</i>	487-601
Low cost Digital Oscilloscope	<i>Felip Vicedo, Maria Jos'e Canet, Federico Garcia, Salvador Alcaraz, Katya G. Llamazares, Pablo Garrido, Angel Grediaga,</i>	487-812
Predicting Trends in Retinol and Beta-Carotene Plasma Levels Using Neural Networks	<i>Khosrow Kaikhah</i>	487-793

CONFERENCE: 8th WSEAS International Conference on CIRCUITS  
SPECIAL SESSION: Computer Aided Electromagnetic Simulation

ROOM A', 13:30 -15:00 after the session of "Reconfigurable Hardware and Applications. Data mining. Computational Intelligence"

(coffee-break around the swimming-pool: 11:00-11:30)

Chair: A. M. Michaelides

Electromagnetic Simulation: Successful Applications and Future Challenges	<i>Alex Michaelides, Gordon Aird, Chris Riley, John Simkin</i>	487-722
Power Transformer Analysis based on 3D Finite Elements and Mixed Numerical Techniques	<i>M A. Tsili, A G. Kladas, P. S. Georgilakis, A. T. Souflaris, D.G. Papparigas</i>	487-710
Magnetic Performance of a Single Phase Induction Motor under Triac-based Voltage Control	<i>Christos Mademlis, Alex Michaelides</i>	487-724
Simulation of the Electric Field on Composite Insulators Using the Finite Elements Method	<i>V.T. Kontargyri, I.F. Gonos, N.C. Iliá, I.A. Stathopoulos</i>	487-726

CONFERENCE: 8th WSEAS International Conference on COMMUNICATIONS

SPECIAL SESSION: Communication Systems and Information Technologies

ROOM B', 11:30-14:30

(coffee-break around the swimming-pool: 11:00-11:30)

Chair: Minh Hung Le, Ranjith Liyana-Pathirana

Wavelet Video with Unequal Error Protection Codes in W-CDMA System and Fading Channels	<i>Minh Hung Le and Ranjith Liyana-Pathirana</i>	487-577
Offset Correction In Voltage Mode Delay Lines	<i>Carlos Muniz, Alejandro Diaz</i>	487-378
Multiple Description Based on JPEG2000	<i>Wen-jiy Hwang, Mei-hwa Liu, Chien-min Ou</i>	487-379
An Efficient Stereo Disparity Estimation Method Based on Region Information	<i>Lu Chaohui, An Ping, Zhang Zhaoyang</i>	487-164
Asynchronous MC-CDMA System in Wavelet Video and Rake Receiver for UEP Codes over Fading Channels	<i>Minh Hung Le, Ranjith Liyana-Pathirana</i>	487-415
Uplink Capacity and Interference Statistics of W-CDMA Rural Highways Cigar-shaped Microcells with Non-uniform Spatial Traffic Distribution	<i>Bazil Taha Ahmed, Miguel Calvo Ramon, Leandro de Haro y Ariet</i>	487-419

CONFERENCE: 8th WSEAS International Conference on COMPUTERS

SPECIAL SESSION: Computation & Reasoning in Idea Generation

ROOM C', 11:30-14:30

(coffee-break around the swimming-pool: 11:00-11:30)

Chair: Kambiz Badie & Maryam Tayefeh Mahmoudi

Application of Learner Style Modeling to Determining Preferable Form of Learner	<i>M. Mirzarezaee , K. Badie, M. Kharrat, M. Dehghan</i>	487-448
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Assessment		
Ideation and Creative Impulse	<i>Morteza Anvari</i>	487-277
An ontology-based intelligent tutoring system	<i>Ehsan Darrudi, Mahmoud Reza Hejazi, Mahmoud Kharrat</i>	487-278
using a two-layered case-based reasoning for generating scientific techniques	<i>Mahsa Kiani, Kambiz Badie, Maryam Tayefeh Mahmoudi</i>	487-269
Generating ideas via computational models on the ground of philosophy of science theories	<i>Mojtaba Kianie</i>	487-317
Correlation Justification As An Approach to Generating New Ideas	<i>Kambiz Badie, Maryam Tayefeh Mahmoudi</i>	487-249
Chaotic FCM as a Mean for Generating Idea in Complex Environment	<i>Shahin Keynoush, Parvaneh Yousefi Parvin</i>	487-273
A Quantitative Model for Evaluation of Different Forms of Assessment Based on Previous Experiments	<i>Mitra Mirzarezaee, Mehdi Dehghan, Mahmood Kharrat</i>	487-248

CONFERENCE: 8th WSEAS International Conference on SYSTEMS  
(2nd WSEAS Intern. Symposium on MULTIDIMENSIONAL SYSTEMS (MDS 2004))

ROOM D', 11:30-14:30

(coffee-break around the swimming-pool: 11:00-11:30)

Chair: George E. Antoniou, Demetrios Kazakos

On the Generalized Second-Order 2D System-Model	<i>George E. Antoniou, Marinos T. Michael</i>	487-115
On realization of 2-D filters by Roesser model	<i>Li Xu, Huijin Fan, Hiroshi Suda, Zhiping Lin, Yosh</i>	487-525
Distributed Spatial Database for use with 3D Graphics Engines	<i>David A. Heitbrink, Sam K. Makki, Demetrios Kazakos</i>	487-323
Mutidimensional Delsarte transmutation operators, their topological structure and applications in spectral and soliton theories	<i>A.K. Prykarpatsky, J. Golenia, Y.A. Prykarpatsky</i>	487-165
An Application for Visualizaton of Parameterized Speech Signals	<i>Lukas Dzbanek, Andy Kuiper</i>	487-598
An Introduction to the Algebraic Analysis of Linear Multidimensional Control Systems	<i>J.-F. Pommaret</i>	487-136
A Multidimensional Query Distance Space for Image Retrieval by Colour	<i>D. Androutsos</i>	487-172
Observers and Luenberger-type observers for 2D state-space models affected by unknown inputs	<i>Mauro Bisiacco, Maria Elena Valcher</i>	487-103
Robust enhancement of 2D electrophoresis images	<i>Nicolas Nafati. Michel Samson. Bernard Rossi</i>	487-135
Quaisi Quantum Material Shift: Unexpected Synchronous Effect to Battery Cells	<i>E.Macer-Story, B.S., M.F.A.</i>	487-201

CONFERENCE: 8th WSEAS International Conference on CIRCUITS

SESSION: Circuits and Filters

ROOM A', 15:00-17:00

(coffee-break around the swimming-pool: 17:00-17:30)

Chair: E. Macer-Story, Mauro Bisiacco,

Scaled Technology Challenges for Low power CMOS based circuits	<i>Nupur Prakash, R. P. Agarwal, Vandana Niranjan</i>	487-229
Multi-loop filter structures in current mode using multi-output transconductors.	<i>Tomas Dostal</i>	487-223
Interval Frazer-Duncan criterion for stability analysis of linear systems with dependent coefficients in the characteristic polynomial	<i>Lubomir Kolev, Simona Petrakieva</i>	487-371
Finding Characteristic Polynomials for LFSMs Used	<i>Dimitri Kagaris</i>	487-543
The 1:4 Phased Demultiplexer Circuit	<i>Serafim Poriazis</i>	487-377
A New configuration in switched reluctance motor	<i>E. Afjei</i>	487-211
Design procedure of oscillators and biquads based on current conveyors	<i>Tomas Dostal, Josef Cajka, Kamil Vrba</i>	487-215
Minimum components universal filters	<i>Chun-Ming Chang, Hua-pin Chen</i>	487-519
Testability Structure for Continuous Time Analog Filters in Mixed-Signal Devices	<i>Mahmoud Al-Qutayri, Nawaf Al-Moosa</i>	487-307
Study of harmonics effects on performance of induction motors	<i>Azim Lotfjou Choobari</i>	487-838

CONFERENCE: 8th WSEAS International Conference on SYSTEMS

SESSION: Neural Networks – Fuzzy Systems

ROOM B', 15:00-17:00 and 17:30 – 19:00 (continued after the coffee-break around the swimming-pool:  
 (coffee-break around the swimming-pool: 17:00-17:30)

Chair: Leszek Rutkowski, I.F.Gonos

Neuro-fuzzy systems based on weighted triangular norms	<i>Krzysztof Cpalka, Leszek Rutkowski</i>	487-298
A Multivariable Fuzzy Control For Non-Linear Industrial Processes	<i>Limin Liu, Xiao Luo, Zuxin Li</i>	487-124
A fuzzy clustering-based algorithm for fuzzy modeling	<i>George E. Tsekouras, Christos Kalloniatis, Evagelia Kavakli, Thomas Mavrofides</i>	487-132
Neural Network Tuning of the 2-DOF PID Controller With a Combined 2-DOF Parameter For a Gas Turbine Generating Plant	<i>Dong Hwa Kim</i>	487-508
Neuro-Fuzzy Tuning of PID Controller for Control of Gas Turbine Power Plant	<i>Dong Hwa Kim</i>	487-507
Neuro-classification of bill fatigue levels based on acoustic wavelet power patterns	<i>Masaru Teranishi, Ryo Ikemoto, Sigeru Omatu, Toshihisa Kosaka</i>	487-407
Hybrid Neural-Network Model-Following Speed Controller with On-Line Learning for Vector-Controlled PMSM Drive	<i>Fayez El-Sousy</i>	487-628
Fuzzy Motor Schema For Mobile Robots	<i>Salvatore Pennacchio, Francesco Maria Raimondi,</i>	487-671
Fuzzy modeling via optimal fuzzy clustering	<i>Christos Kalloniatis, Thomas Mavrofides, George E. Tsekouras</i>	487-159
Fuzzification and Defuzzification Process in Genetically Evolved Fuzzy Cognitive Maps (GEFCMs)	<i>Nicos H. Mateou , Andreas S. Andreou, George A. Zombanakis</i>	487-698
Adaptive Fuzzy-Sliding Mode Controller Design for Uncertain Time-Delayed Systems with Nonlinear Input	<i>Hung-Yuan Chung , Lon-Chen Hung</i>	487-819
Machine Recognition of Print Arabic Text for the Advanced Degrees of Recognizability	<i>Ouarda Hachour, Nikos Mastorakis</i>	487-776
Fuzzy Neural Network with Sliding-Mode Controller Applications to Mobile Robotic	<i>Hung-Yuan Chung, Lon-Chen Hung</i>	487-799

CONFERENCE: 8th WSEAS International Conference on COMMUNICATIONS

SESSION: Telecommunication Systems

ROOM C', 15:00-17:00

(coffee-break around the swimming-pool: 17:00-17:30)

Chair: Ioannis A. Pikrammenos, Vasilios Anagnostopoulos

On the W-CDMA Uplink Capacity and Interference Statistics of a Short Tunnel Cigar-shaped Microcell	<i>Bazil Taha-Ahmed, Miguel Calvo-Ramón and Leandro de Haro-Ariet</i>	487-181
On the Capacity and Interference Statistics of High Traffic Street W-CDMA Cross-Shaped Micro Cells (Uplink Analysis)	<i>Bazil Taha-Ahmed, Miguel Calvo-Ramón and Leandro de Haro-Ariet</i>	487-179
Path Loss Effect on W-CDMA Uplink Capacity	<i>Bazil Taha-Ahmed, Miguel Calvo-Ramón and Leandro de Haro-Ariet</i>	487-194
Uplink Capacity and Interference Statistics of Street W-CDMA Cross-shaped Micro-Cells	<i>Bazil Taha-Ahmed, Miguel Calvo-Ramón and Leandro de Haro-Ariet</i>	487-171
Optical Router with time/Wavelength coding for Optical-CDMA	<i>G Vijay Kumar, D Syam Sundar</i>	487-148
Near-Optimum Downlink Power Control Scheme in W-CDMA	<i>Bazil Taha-Ahmed, Miguel Calvo-Ramón and Leandro de Haro-Ariet</i>	487-213
Subspace Receiver Techniques for DS-CDMA Systems in Space Diffused Vector Channels	<i>T.S. Naveendra, A. Manikas</i>	487-478
Design for interworking between HPI and existing wireless LANs using different AAA protocols	<i>Sun-Hwa Lim, Yeong-Jin Kim</i>	487-398
Bidirectional, Multi-Layer Peer-to-Peer Authentication in WLAN Network Using Smart Cards as Mediators	<i>Ioannis A. Pikrammenos, Vasilios Anagnostopoulos</i>	487-209

CONFERENCE: 8th WSEAS International Conference on COMPUTERS

SESSION: Software Engineering and Web Technologies

ROOM D', 15:00-17:00

(coffee-break around the swimming-pool: 17:00-17:30)

Chair: N. Bardis

The algorithm for load balancing of web cluster based on data mining	<i>Nie Ru</i>	487-175
The Design and Implementation for a C# Web spider	<i>Ebada A. Sarhan, Iraky H. Khalifa, and Wael S. Tawah</i>	487-184
Distributed Character of Internet GIS – Case	<i>Komarkova Jitka, Simonova Stanislava,</i>	487-341

of Czech Regional Authorities	<i>Dusek Vaclav</i>	
Software Product Family Architectures - Engineering Run-Time Variability Dependencies in an FPGA-based Signal Processing Board	<i>Michel Jaring</i>	487-414
A new approach for software process modeling	<i>Atil Fadila Bounour Nora Ghoul Said</i>	487-651
Inheriting the Insertion Operator in C++	<i>Michael Dowell</i>	487-503
Integrating Rule and Agent-Based Programming to Realize Complex Systems	<i>Alessandro Beneventi, Agostino Poggi, Michele Tomaiuolo, Paola Turci</i>	487-636

CONFERENCE: 8th WSEAS International Conference on CIRCUITS

SESSION: Circuits for Systems Implementation

ROOM A', 17:30-20:30

(coffee-break around the swimming-pool: 17:00-17:30)

Chair: A. Varonides

A wired CDMA Interface System	<i>Masahiro Sasaki, Yu Ono, Takashi Matsumoto</i>	487-685
New Design of Capillaries for Multi-Tier Wire Bonding	<i>Z.W. Zhong and K.S. Goh</i>	487-403
A geometric approach of generalized linear systems	<i>Maria Isabel Garcia-Planas,</i>	487-369
An improvement in the calculation of the self inductance of thin disk coils with air core	<i>Slobodan I. Babic, Cevdet Akyel</i>	487-166
Decentralised stabilization of large-scale systems. Some New results	<i>Elmarjany Fatima, Elalami Nouredine</i>	487-585
An alternative ARAM cell design to increase storage time	<i>Reg Kozma, Csaba Horváth, Ferenc Kovács, Gábor Hosszú</i>	487-210
0.18 $\mu$ m CMOS 6GHz Pseudo Non-overlapping clock Generator	<i>Masahiro Sasaki, Shin Yokoyama, Takashi Matsumoto</i>	487-674
CTL Property Checking Based on a New High Level Model Without Equation Solving	<i>Bijan Alizadeh Zainalabedin Navabi</i>	487-101
On Global Efficiency Enhancement Of Nano-PV Quantum Structures, via Fermi Energy Splitting	<i>Argyrios Varonides, W. Andrew Berger</i>	487-479
Study of Harmonic/Es Effects on Performance of Induction Motors	<i>Azim Lotfjou Choobari</i>	487-613
Fast acquisition digital tanlock loop with adaptive time delay	<i>Nawaf Al-moosa, Saleh Al-araji and Mahmoud Al-qutayri</i>	487-270

CONFERENCE: 8th WSEAS International Conference on SYSTEMS

SESSION: Control and Automation

ROOM B', 17:30-20:30 after the end of the session "Neural Networks – Fuzzy Systems"

(coffee-break around the swimming-pool: 17:00-17:30)

Chair: Jose Carlos Quadrado

Robust PID Control Based on Partial Knowledge about Time-delay Systems	<i>Tohru Kawabe</i>	487-204
An Optimal Control of Four Wheel Steering Vehicles	<i>Mohammad Reza Mostavi, R. Kazemi and M. Shariatpanahi</i>	487-653
Control theory for a class	<i>Chuan-Gan Hu</i>	487-621
2DOF I-PD Model-Following Speed Controller for Field-Oriented Induction Motor Drive	<i>Fayez El-Sousy</i>	487-610
Modeling and control of a compressed natural gas injection system	<i>Bruno Maione, Paolo Lino, Sisto De Matthaeis, Claudio Amorese, Dario Manodoro, Raffaele Ricco</i>	487-599
A simple two-stage hybrid learning strategy for Radial Basis Function Networks	<i>Zekeriya Uykan, Heikki N. Koivo</i>	487-375
Design of a digital PWM controller for a soft switching SEPIC converter	<i>Nashed Maged</i>	487-192
Robust SISO and MIMO Polynomial Controller Design	<i>Radko Memersheimer, Stefan Kozak</i>	487-432
New Approach to Control SRM Drives	<i>Jose Carlos Quadrado</i>	487-562

CONFERENCE: 8th WSEAS International Conference on COMMUNICATIONS

SESSION: Telecommunication Systems' Architectures and Networking

ROOM C', 17:30-20:30

(coffee-break around the swimming-pool: 17:00-17:30)

Chair: G.Antoniou

An Architecture for Publishing and Distributing Service Components in Active Networks	<i>N. Dragios, C. Harbilas, K. P. Tsoukatos, G. Karetsos</i>	487-439
Network Security of Wireless LANs in Auckland's Central Business District	<i>Chih-Ta Lin, Hira Sathu, Donald Joyce</i>	487-409
Increasing Bandwidth Efficiency By Means Of Analog Modulation On Top Of Digital	<i>J. Pliatsikas, C. Koukourlis, J. Sahalos</i>	487-477



Modulation		
Quantization Noise Power Injection In Subband Aud	<i>D. Martinez-Muñoz, N. Ruiz-Reyes, P. Vera-Candeas</i>	487-533
A generation method for constructing complete complementary sequences	<i>Chenggao Han, Naoki Suehiro, Toshiaki Imoto</i>	487-440
Electromagnetic compatibility considerations for control circuits of medium voltage statcom	<i>Ahad Kazemi, Hossein Heydari, Faramarz Faghihi</i>	487-496
Diameter AAA Mobility Support for MIPv6	<i>Marie Kim, Hyungon Kim</i>	487-406
Dynamic Future Code Allocation Scheme For Dsch In	<i>Nishant Yadav</i>	487-529
Blind adaptive multiuser detection and integrated channel estimation in multipath cdma channels	<i>Ali Chathan Kandiyil, Gopinathan Erambally</i>	487-433
Design and optimization of a new power monitor with small size	<i>Abbas Ali Lotfi Neyestanak, Ali Homaii, Masood Khosroshahy, Mohammad Mirhosaini</i>	487-527
A distributed memory management for high speed switch fabrics	<i>Meysam Roodi, Ali Mohammad Zareh Bidoki, Nasser Yazdani, Hossain Kalantari, Hadi Khani, Asghar Tajoddin</i>	487-288

CONFERENCE: 8th WSEAS International Conference on COMPUTERS

SESSION: Applied Informatics and Modern Applications

ROOM D', 17:30-20:30

(coffee-break around the swimming-pool: 17:00-17:30)

Chair: Th. Orphanoudakis

Lifelong education in information society: role of national knowledge base	<i>Marjan Krasna</i>	487-311
A New Technique of Using Extensible Ontology in Agent Communication	<i>Chin-Swern Huang, Jason Jen-Yen Chen, and Yo-Shin Lai</i>	487-274
A New hybrid recognition of print Arabic characters Using image synthesis	<i>Ouarda Hachour, Nikos Mastorakis</i>	487-384
Wavelet analysis of atrial depolarization in patients with paroxysmal atrial fibrillation	<i>George Dakos, Vassilios Vassilikos, Ioanna Chouvarda, Haralambos Karvounis, Nikolaos Maglaveras, Sotirios Mochlas, George Louridas</i>	487-243
Stereo calculation of significant point using FPGA	<i>Arturo Gil, Roberto Gutierrez, Jose Luis Alonso, Susana Fernandez de Avila</i>	487-412
Game Situation Analysis Using the Finite Element Technique (SAFET)	<i>Sherif E. Hegazy</i>	487-410

An Aspect-to-Class Advising Architecture Based on XML in Aspect Oriented Programming	<i>T. Hussain, M. M. Awais, S. Shamail, M. A. Adnan</i>	487-372
A Generalized Fuzzy Temporal Database System with SQL Compatibility	<i>Shadab A. Alam, Javed A. Alvi, A.Q.Ansari</i>	487-411
N-Tier Distributed Computing Simulation	<i>Hany M Harb</i>	487-102
Image generation in microprocessor-based system with simultaneous video memory read/write Access	<i>Mountassar Maamoun, Boualem Laichi, Abdelhalim Benbelkacem, Daoud Berkani</i>	487-114
A Cryptographic Key Generation Scheme Without A Trusted Third Party For Access Control In A Hierarchy	<i>Min-Shiang Hwang, Chwei-Shyong Tsai</i>	487-116
Autonomous Land Vehicle Navigation using Artificial Neural Networks	<i>Sai Nithin Singh C., Muthu Ganesh P.</i>	487-161
A distributed memory management for high speed switch fabrics	<i>Meysam Roodi, Ali Mohammad Zareh Bidoki, Nasser Yazdani, Hossain Kalantari, Hadi Khani, Asghar Tajoddin</i>	487-288

## BANQUET

(Live Greek and International Music and Greek Traditional Dances):  
21:00 (around the swimming pool)

## JULY 14, 2004

CONFERENCE: 8th WSEAS International Conference on CIRCUITS

INTERNATIONAL WORKSHOP: Lighting and Renewable Energy Sources

ROOM A', 08:00-11:00

(coffee-break around the swimming-pool: 11:00-11:30)

Chair: F.V. Topalis

Review of methods used to predict lighting energy savings due to daylight	<i>Aris Tsangrassoulis, V. Bourdakis</i>	487-717
Optimization of Potential and Autonomy of a Photovoltaic System for Street Lighting	<i>Constatntinos A. Bouroussis, Frangiskos V. Topalis</i>	487-702

A Pilot Study for the Determination of the Energy Saving Potential in a Typical School Building by Utilization of Daylighting	<i>I.D. Kateri, N.G. Chondrakis, F.V. Topalis</i>	487-701
A Mesopic Vision Approach for a Better Design of Road Lighting	<i>N. Bisketzi, G. Polymeropoulos, F.V. Topalis</i>	487-704
Education on energy efficient lighting technologies	<i>Aris Tsangrassoulis, Afroditi Synnefa, Mat Santamouris, Marc Fontoynt, Mike Wilson, Axel Jacobs, Andreas Zimmermann, Wilfried Pohl</i>	487-638
Scenarios for a Large Scale Installation of Compact Fluorescent Lamps: Influence on the Power Quality	<i>S.A. Sufli, I.E. Chatzakis F.V. Topalis M.B. Kostic</i>	487-703
A midterm energy forecasting method using fuzzy logic	<i>Ch. N. Elias, G. J. Tsekouras, S. Kavatza, G.C. Contaxis</i>	487-532
Review of Solar Radiation Estimation and Solar Data Banks Elaboration Methodologies over Greece	<i>A.G. Kostoulas, G.A. Vokas, F. Skittidis</i>	487-705
Evaluation of the Distributed Generation Effect on the Power Quality of the Grid	<i>N. Kasmus, S. Papathanassiou, A. Kladas</i>	487-707
Simulation of hybrid Photovoltaic-Thermal Collector (PV-TC) Systems for domestic Heating and Cooling Case Study: Island of Rhodes	<i>N. Christandonis, G.A Vokas, F. Skittides</i>	487-706

CONFERENCE: 8th WSEAS International Conference on SYSTEMS

SESSION: Signal Processing Systems

ROOM B', 08:00-11:00

(coffee-break around the swimming-pool: 11:00-11:30)

Chair: A. Venetsanopoulos, J. Garus

Distributed image mining using small world indexes	<i>P. Androutsos, A. Kushki, A.N. Venetsanopoulos</i>	487-351
A method of thrust allocation for remotely operated vehicle with using of Walsh matrix	<i>Jerzy Garus</i>	487-158
Modified design of digital comb filter for harmonic elimination	<i>Poovannan Ramamoorthy, Vanaja Ranjan</i>	487-338
Morphological Filtering of the Mammographic Image	<i>Hamdi Mohamed Ali</i>	487-589
Parametric ECG coder based on adaptive signal models	<i>Pedro J. Reche López, Nicolás Ruiz Reyes, Pedro Vera Candeas, Damián Martínez Muñoz, Juan C. Cuevas</i>	487-162

	<i>Martínez</i>	
Target detection by multisite ultra-wideband radar systems with information fusion	<i>Victor Chernyak</i>	487-170
Application of the FMEA and FTA for Analyzing Dependability of Generator Phase Fault	<i>M.Karakache ,B.Nadji ,I. Ouahdi</i>	487-629
Task Allocation in Multi-Agent Systems with Swarm	<i>X. Zhuang, N. E. Mastorakis</i>	487-542

CONFERENCE: 8th WSEAS International Conference on COMMUNICATIONS

SESSION: Internet, Multimedia and Telecommunications

ROOM C', 08:00-11:00

(coffee-break around the swimming-pool: 11:00-11:30)

Chair: C. Soras, C. Papandreou

Web Services Computing: Beyond Component-Based Architectures	<i>Dionisis Adamopoulos, Constantine Papandreou</i>	487-482
New Sub-Optimum Power Control Scheme for W-CDMA Cellular Systems Downlink	<i>Bazil Taha-Ahmed, Miguel Calvo-Ramón, Leandro de Haro-Ariet</i>	487-190
Using enterprise architecture framework to design network security architecture	<i>Mahdireza Mohajerani, Ali Moeini</i>	487-657
An artificial intelligent connection admission control scheme for self-similar traffic using case based reasoning	<i>Afshin Parvaresh, Mohammed I. Kalantari</i>	487-658
Photo realistic talking heads using image samples	<i>Senthilraja Narayanasamy</i>	487-401
Correlation-Based Similarity Measure for Multimedia Services With QoS Support	<i>Milan Bjelica, Zoran Petrovic</i>	487-214
An Efficient Authentication Scheme for Contactless Smartcards using Elliptic Curve Cryptography	<i>Diomedes D. Kastanis, Ioannis G. Askoxylakis, Maria P. Reppa</i>	487-441
A Secure Mediated Authentication Protocol	<i>Omkant Pandey, Mayank Singh Sengar, Virendra Kumar</i>	487-446
Educational tool for optical communication engineering teaching	<i>J. del Rio Bellisco, J. Alpuente Hermosilla, R. Sanchez Montero, P. L. Lopez Espi</i>	487-447
Attacking Routers by Packet Misrouting	<i>K. H. Yeung, W. K. Fung</i>	487-404
Designing a Regional Crawler for Distributed and Centralized Search Engines	<i>Milad Shokouhi, Pirooz Chubak, Hassan Bashiri</i>	487-360

CONFERENCE: 8th WSEAS International Conference on COMPUTERS

SESSION: Information Theory and Computer Technologies

ROOM D', 08:00-11:00

(coffee-break around the swimming-pool: 11:00-11:30)

Chair: Martin Juras, George Adam

Enumerative and structural aspects of incomplete generating languages	<i>Martin Juras</i>	487-129
A Simple Circuit for Adding Complex Numbers	<i>Johnny Goode, Tariq Jamil, Dale Callahan</i>	487-130
Hybridization of Evolutionary Techniques for the TSP with a Genotypic Termination Criterion	<i>Jessica A. Carballido, Ignacio Ponzoni, Nélide B. Brignole</i>	487-131
Recent Advances in Clustering: A Brief Survey	<i>Sotiris Kotsiantis, Panayiotis Pintelas</i>	487-133
Reactive Agent Technology for Real-Time, Multisensor Target Tracking	<i>Costas Tsatsoulis, Edward Komp</i>	487-137
Model-based Qualitative Studies of Complex Manufacturing Systems	<i>George K. Adam, Constantinos Karapoulios</i>	487-140
Design and Verification of an Agent-Based System	<i>Jolana Sebestyenova</i>	487-356
The JMS message processing using the java connector architecture 1.5	<i>Beom-Su Seo, Seung-woog Jung, Sung-Hoon Kim, Joogn-bae Kim</i>	487-157
A control service for QoS-enabled middleware	<i>Cosmina Ivan</i>	487-365
Data and Data Warehousing for Management of Small Region – from the Czech Republic Point of View	<i>Stanislava Simonova, Jitka Komarkova</i>	487-329
An Application of Fuzzy c-Means Clustering to FLC Design for Electric Ceramics Kiln	<i>Watcharachai Wiriyasuttiwong, Somphop Rodamporn</i>	487-355
Impact of Mobility on The Ad Hoc On-Demand Distance Vector Routing Protocol	<i>R. Aoudjit, M. Lalam, M. Belkadi, M. Daoui</i>	487-207

CONFERENCE: 8th WSEAS International Conference on CIRCUITS  
SPECIAL SESSION : High Voltage Applications

ROOM A', 11:30- 14:30

(coffee-break around the swimming-pool: 11:00-11:30)

Chair: I. A. Stathopoulos, I. F. Gonos

Modeling for the Calculation of Overvoltages Stressing the Electronic Equipment of High Voltage Substations due to Lightning	<i>M. Psalidas, D. Agoris, E. Pyrgioti, C. Karagiannopoulos</i>	487-602
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Sparkover Characteristics of Sphere-rod Gaps under Standard Impulse Voltages	<i>P.N. Mikropoulos, C.A Stassinopoulos, I. Katarachias, A. Tsetoglou</i>	487-608
Key Issues in Lightning Protection of Wind Turbines	<i>M.I. Lorentzou, N.D. Hatziargyriou, I. Cotton</i>	487-723
Numerical Simulation of a High Voltage Circuit for laser applications	<i>Papageorgiou L., Panousis E., Potamianou S., Spyrou N.</i>	487-850
Investigation of leakage Current on High Voltage Insulators - Field Measurements	<i>Kiriakos Siderakis, Demosthenis Agoris, Pyrgioti Eleftheria</i>	487-604
A Current Measurement Procedure for the ESD Generators according to the EN 61000-4-2	<i>G.P. Fotis, I.F. Gonos, I.A. Stathopoulos</i>	487-725
A review on the application of fiber optics on high voltage lines	<i>D.K.-E. Vasileiou, D. Agoris, E. Pyrgioti, D. Lymberopoulos</i>	487-606
Past and Present Requirements for Routine Testing of Crosslinked Polyethylene Insulated Medium Voltage Cables	<i>A. I. Ampsefidis, C. A. Chousalas</i>	487-719
A Modern Method for Reduction of Capacitor Energization Stresses	<i>C.D. Tsirekis, N.D. Hatziargyriou, A.G. Koronides</i>	487-829
Experimental Value of Network Harmonic Impedance	<i>Stefania Ioan, Sorin Hurdubetiu, Frangiskos Topalis</i>	487-607

CONFERENCE: 8th WSEAS International Conference on SYSTEMS

SESSION: Systems Theory and Computer Techniques

ROOM B', 11:30- 14:30

(coffee-break around the swimming-pool: 11:00-11:30)

Chair: I.Rudas, J. Garus

Goal Directed Project Management intelligent system for the support of ERP Implementation and optimal adaptation procedure	<i>Ioannis Zafeiropoulos, Kostas Metaxiotis, John Psarras</i>	487-106
System for definition of the pipeline diagram	<i>Sergiy Sadovnychiy</i>	487-588
A Shunt Connected DC-Motor Feedback Linearization Technique with On-Line Parameters Estimation	<i>M. S. Ibbini</i>	487-173
How to represent agents via the CSP formalism	<i>Sana Moujahed, Khaled Ghédira</i>	487-509
Integrated Modeling of Parts and their Manufacturing Process by Associative Features	<i>Imre J. Rudas, Laszlo Horvath</i>	487-648
Estimation and compensation of IQ-imbances in direct down converters	<i>Andreas Pascht, Thomas Bitzer, Thomas Bohn</i>	487-123
Organization of an intellectual technological searching cycle to support making decisions	<i>Bocharov Lev Aleksandrovich, Sokolov Nikolay Leonidovich, Udaloy Valeriy</i>	487-149

during a space vehicles (SV) remote control	<i>Alekseevich</i>	
Dual Mode Hybrid Bus Energy Storage System	<i>Joao Lopes, Jose Carlos Quadrado</i>	487-600
Unmanned aerial vehicle system for pipeline inspection	<i>Sergiy Sadovnychiy</i>	487-593
A theoretical approach to fractal dimension of random processes	<i>Mehrdad Salmasi, M. Modarres-Hashemi</i>	487-590
Intelligent Agent For Filtering Information In Internet Newsgroups	<i>Hisham S.Katoah</i>	487-151
Computational Tools for MRI-Guided Thermal Therapy	<i>George Zouridakis, Nitin Bagrecha</i>	487-615
Design of a robust controller for a heat exchanger system with I-infinity performance objectives and repeated perturbations	<i>Patrick Cadotte, Hannah Michalska, Benoit Boulet</i>	487-465
Absorbing Norms	<i>Imre Rudas</i>	487-080

CONFERENCE: 8th WSEAS International Conference on COMMUNICATIONS

SESSION: Multimedia, Telecommunications, Internet

ROOM C', 11:30- 14:30

(coffee-break around the swimming-pool: 11:00-11:30)

Chair: D. Adamopoulos

Analytic Comparison of Congestion Effects for Alternative Web Proxy Cooperation Models	<i>Eugenio de la Rosa, John H. Hartman, Terril Hurst</i>	487-467
Sensors and Image Noise Techniques	<i>C. Fotiades</i>	487-250
Analysis of Multipath and Fading Effects on Direct Sequencing CDMA	<i>Aruna, G., Sathyabama, R.</i>	487-574
A Single Chip Efficient FPGA implementation of RSA and DES for Digital Envelope Scheme	<i>R. Srinivasan, V. Vaidehi, J. Balaji, S. Heema</i>	487-578
On the FDSS Downlink Capacity in Urban Zone Near ATSC 8-VSB Digital Video Broadcasting Installations	<i>Bazil Taha-Ahmed, Miguel Calvo-Ramón and Leandro de Haro-Ariet</i>	487-191
Design of an X-band frequency synthesizer for microsatellite systems	<i>M. Kameche, L. Hadj Abderahmane</i>	487-581
Rake Receiver and SIR Estimation for Power Control Algorithms of WCDMA Reverse Link	<i>Hassan Moradi, Ahmad Salah</i>	487-583
Mechanism analysis and prevention on internet worms	<i>Wen weiping, Qing Sihan, He yeping</i>	487-591
Improved Mobile IP System with Secure Registration and NAT Interoperability	<i>Sundaresan N., Chellappan C</i>	487-573
A New Application of ôGeminationö in Standard Arabic Language	<i>Ouarda Hachour, Nikos Mastorakis</i>	487-382

Access gateway in the referent architecture of the manageable NGN network	<i>Mihailo Jovanovic, Natasa Zivic, Zoran R. Petrovic</i>	487-576
Web Services Computing: Beyond Component-Based Architectures	<i>Dionisis Adamopoulos, Constantine Papandreou</i>	487-482

CONFERENCE: 8th WSEAS International Conference on COMPUTERS

SESSION: Computers and Signal Processing

ROOM D', 11:30- 14:30

(coffee-break around the swimming-pool: 11:00-11:30)

Chair: Mahmoud Samiei Nasr

Face feature extraction using the efficient dimensionality reduction method	<i>Byungjun Son, Jung-Ho Ahn, Gyundo Kee, Yillbyung Lee</i>	487-212
Mammography segmentation based on viscous flooding simulation	<i>Mohamed ali Hamdi - Hamid Amiri</i>	487-216
Identifying Mechanisms Associated with Diseases Using Classification techniques	<i>Jagir Hussan, Krithikaa Krishnamoorthy, Gustavo Stolovitzky</i>	487-220
Computer Supported Cooperative Work in newspaper organizations	<i>Evaggelia Avraam, Andreas Pomportsis, Andreas Veglis</i>	487-221
Iris Tilt Correctness in Iris Recognition System	<i>Ji-hyun Park, Byungjun Son, Yillbyung Lee</i>	487-225
The weight selection in WFR tracking framework	<i>Yu Zhao, Hanqing Lu</i>	487-361
New Analytical Model of Value Prediction	<i>Jasen Markovski, Marjan Gusev</i>	487-237
A model to evaluate the effectiveness of technology transfer from developed countries to developing countries	<i>Mahmoud Samiei Nasr</i>	487-141
Design Patterns in Telecommunications Service Engineering	<i>Dionisis Adamopoulos, Constantine Papandreou</i>	487-498
A new method for cluster visualization	<i>Emad Monier</i>	487-534
Edge detection with the parametric filtering meth	<i>Mounir Boussafsaf, Abderazek Guessoum</i>	487-535
Design Reuse in Product Shape Modeling: Global and	<i>Chensheng Wang, Joris S.M. Vergeest, Pieter J. Sta</i>	487-536
Analytic Comparison of Congestion Effects for Alternative Web Proxy Cooperation Models	<i>Eugenio de la Rosa, John H. Hartman, Terril Hurst.</i>	487-467

CONFERENCE: 8th WSEAS International Conference on CIRCUITS



SESSION: Circuit Analysis and Applications

ROOM A', 15:00-17:00

(coffee-break around the swimming-pool: 17:00-17:30)

Chair: P.Linardis, D. Cafagna

Accurate Performance Dynamics and Analysis Of Swit	<i>F. Ismael M. Khater H. El Khashab A. Oshiba</i>	487-555
Reducing Power Consumption during Testing of VLSI Circuits by Proper Subsequence Selection and Modification	<i>Michael Dimopoulos, Panagiotis Linardis</i>	487-354
HOS-based variable step volterra filter	<i>Kamal Meghriche, Nacer M'Sirdi, Mourad Haddadi</i>	487-667
Efficient Datapath Design Using Novel 6*6 Conservative Reversible Gates	<i>Amol.Joge, P.Varma, Vishwanathan Mohan</i>	487-459
Volterra black-box model of electron devices nonlinear behavior	<i>Georgina Stegmayer, Marco Pirola, Giovanni Ghione, Giancarlo Orengo, Paolo Colantonio</i>	487-284
A New Dynamic Phenomenon in Nonlinear Circuits: State-Space Analysis of Chaotic Beats	<i>Donato Cafagna, Giuseppe Grassi</i>	487-126
A Mathematical Analysis of Analog and Digital summation in compensation block for I/O buffers	<i>Sushrant Monga, Paras Garg, Frederic Hasbani</i>	487-134
A New Feedback Technique for Synchronizing Chaotic Chua's Circuits with $x \cdot \text{abs}(x)$ Nonlinearity	<i>Donato Cafagna, Giuseppe Grassi</i>	487-127

CONFERENCE: 8th WSEAS International Conference on SYSTEMS

SESSION: Systems Theory, Simulation and Control

ROOM B', 15:00-17:00 and 17:30-20:30, continued after the coffee-break around the swimming-pool:

(coffee-break around the swimming-pool: 17:00-17:30)

Chair: Zygmunt Kitowski, Karolos Grigoriadis

Optimization of Multiple Thermal Insulation Layers	<i>John Curtis</i>	487-617
A Remote Authentication Model of Information Appliances	<i>Huey-Ming Lee, Hsih-Feng Liao, Shu-yen Lee</i>	487-693
Design of a Fuzzy Based Digital PID Controller for Control of Nonlinear HVAC Systems	<i>Vahid Johari Majd, Farhad Besharati And Farzan Rashidi</i>	487-696

nonlinear control of rigid manipulators based on approximate solution of HJB equation	<i>Asadollah Ghazavi , Hossein Rouhani, Mahdi Jalili-Kharaajoo</i>	487-700
Diesel Engine Control Using Parameter Varying Methods	<i>Qingwen Song, Karolos Grigoriadis</i>	487-444
A Multiagent Architecture For a TransportÆs Multi Modal Information System.	<i>Mohamed Amine Kamoun, Slim Hammadi</i>	487-402
Network Topologies: Analysis And Simulations	<i>Marjan Sterjev, Ljupco Kocarev</i>	487-368
Pipeline leakage remote detection system	<i>Sergiy Sadovnychiy, Alfredo Ramirez, Marco Lopez, Nancy Solis</i>	487-178
Ontologies at the Basis of KAMET	<i>Julio César Alvarez</i>	487-344
Optimal Design of PM Axial Field Motor Based on PM Radial Field Motor Data	<i>Goga Cvetkovski, Lidija Petkovska</i>	487-466
Trajectory trackong control of underwater vehicle	<i>Zygmunt Kitowski, Jerzy Garus</i>	487-510
Muscle Stimulation with Digitally Tunable Stimulus	<i>Mashhour Ban Amer, Rami Owies</i>	487-325
Applying the lifting operators in the study of a multifrequency large-scale system stability	<i>Marta Sigut, Leopoldo Acosta, Nicolas Marichal</i>	487-266
Hardware Accelerated Collision Detection -- An Architecture and Simulation Results	<i>Andreas Raabe, Blazej Bartyzel, Gabriel Zachmann, Joachim K. Anlauf</i>	487-321
Fully Generalized State Model of Optimized Third-Order Dynamical Systems of Class C	<i>Jiri Pospisil, Zdenek Kolka, Stanislav Hanus, Vaclav Michalek, Vaclav Pospisil, Jaromir Brzobohaty</i>	487-319
Economic and Minimum Emission Dispatch	<i>Y.Demirel, A.Demiroren</i>	487-303
Finite valued control laws design	<i>Giovanni Celentano Raffaele Iervolino</i>	487-285
Application of Decentralized Control on a Segmented Reflected Testbed	<i>A. Khoshafian, H. Boussalis, S. Fallorina, E. Velazquez, K. Rad, C. Liu, D. Cantzos</i>	487-676
transient performance of a hybrid electric vehicle with multiple input dc-dc converter	<i>Maged Naguib FahmyNashed</i>	487-193
Order reduction of linear systems using point-to-point step response matching technique	<i>S. Mukherjee, Satakshi, R.C. Mittal</i>	487-420
Synthesis of the inverted pendulum on new system theory	<i>Andrea Fialova</i>	487-472

CONFERENCE: 8th WSEAS International Conference on COMMUNICATIONS

SESSION: Modeling and Computer Techniques in Communications

ROOM C', 15:00-17:00

(coffee-break around the swimming-pool: 17:00-17:30)

Chair: Z. Boikovic

EMC considerations in current injection transformer systems	<i>Hossein Heydari, Faramarz Faghihi and Mohsen Farhady</i>	487-650
Performance Analysis of Statistical Multiplexers with Finite Number of Input Links and a Train Arrival Process	<i>Faouzi Kamoun</i>	487-122
A novel approach to intrusion detection based on Support Vector Data Description	<i>Xinmin Tao</i>	487-428
VLSI based implementation of low complexity wavelet filter structure on FPGA	<i>P.Vanaja Ranjan, K.Thirupura Sundari.</i>	487-276
Post-processing modifications in a parametric audio coder	<i>P. Vera-Candeas, N. Ruiz-Reyes, D. Martinez-Munoz, P.J. Reche-Lopez, J. Curpian-Alonso</i>	487-624
The quality of modelling of unmanned underwater vehicle's dynamics using the neural networks for needs of the simulator	<i>Bogdan Zak, Zygmunt Kitowski</i>	487-160
Stream ciphers created by a discrete dynamic system for application in the Internet	<i>V. Soulioti, Y. Bakopoulos, S. Kouremenos, Y. Vrettaros, S. Nikolopoulos, A. Drigas</i>	487-627
Hybrid Shape, Amplitude, and Position Modulation for UWB Communication Systems	<i>A. Eltaher, T. Kaiser</i>	487-633
Survey on Malicious Code	<i>Wen Weiping, Qing Sihan, He Yeping</i>	487-597

CONFERENCE: 8th WSEAS International Conference on COMPUTERS

SESSION: Data Bases, Web Engineering and Knowledge Management

ROOM D', 15:00-17:00

(coffee-break around the swimming-pool: 17:00-17:30)

Chair: Zeljko Panian

Knowledge Management: A Learning Organization Mode	<i>Zeljko Panian</i>	487-554
Computing the Hamming Distance of a Regular Language in Quadratic Time	<i>Lila Kari, Stavros Konstantinidis, Steven Perron, Geoff Wozniak, Jing Xu</i>	487-647
A Predictive-Adaptive Algorithm for a Web Switch	<i>Kaja Gilly, Salvador Alcaraz, Carlos Juiz and Ramon Puigjaner</i>	487-569

A Connectionist Approach for Adaptive Lesson	<i>Hassina Seridi-Bouchelaghem &amp; Toufik Sari, Mokhtar Sellami</i>	487-457
Estimation of database unique values	<i>Carlo dell' Aquila, Ezio Lefons, Filippo Tangorra</i>	487-458
System Framework for Generating Open Development Platforms for Web-Service Applications Using Semantic Web ...	<i>H.Jjoachim Nern, G. Agre, T. Atanansova, J. Saarela</i>	487-461
IS-IS Protocol Hardware Implementation for VPN Solutions	<i>Mohamed Abou-Gabal, Raymond Peterkin, Dan Ionescu</i>	487-645
A modification on q&a systems based on cbr and ga	<i>Namita Mahin, Ali Moeini</i>	487-652
Defining adaptive e-Learning courses in Semantic Web	<i>Kerkiri T., Manitsaris Athanasios., Mavridis Ioannis</i>	487-473

CONFERENCE: 8th WSEAS International Conference on COMMUNICATIONS

SESSION: Simulation, Analysis and Modeling in Communication Systems

ROOM C', 17:30-21:00

(coffee-break around the swimming-pool: 17:00-17:30)

Chair: Alexandre Grebennikov, Constantine Manikopoulos

A feasibility analysis of network traffic forecast based on fractal characteristics	<i>Xin Wang Bingxin Fang</i>	487-639
Performance Evaluation Of Differential OFDM-MIMO Systems	<i>Abdulrohman Qatawneh, Leandro De Haro</i>	487-279
A General Ray (GR) Method for Solution of Differential Equations for Electromagnetic Field	<i>Alexandre Grebennikov</i>	487-203
Transmitting critical Biomedical Signals over unreliable connectionless channels with good QoS using Advanced Signal Processing	<i>Stephane Henrion, Corinne Mailhes, Francis Castanie</i>	487-662
The Effect of Lateral Guiding Mechanism on Noise C	<i>Abbas Zarifkar, Afsaneh Falahatpisheh</i>	487-550
Remote sensing images classifications based on DEC	<i>Behzad Moshiri , Farhad Besharati</i>	487-551
Data authentication in distribution automation sys	<i>Morvarid Sehatkar, Faramarz Faghihi</i>	487-513
Optimal splitting node placement for multicasting	<i>Sofi Jebasoundaram, Saminadan Meenakshi</i>	487-557
Identification of trust requirements in an e-business framework	<i>T. Tsiakis, E. Evagelou, G. Stephanides, G. Pekos</i>	487-579
On the Transient, Busy and Idle Period Analysis of Statistical Multiplexers with N Input	<i>Faouzi Kamoun</i>	487-186

Links and Train Arrivals		
An Architectural Framework for Support Quality of Service in MPLS Network	<i>Augusto Foronda; Kleber Kendy Horikawa Nabas; Walter Godoy Junior</i>	487-564
On the UMTS Macrocells Downlink Capacity in Open Rural Zone Near Shaded Deep Space Network (DSN) Installations	<i>Bazil Taha-Ahmed, Miguel Calvo-Ramón, Leandro de Haro-Ariet</i>	487-180
DARED: a novel RED-based AQM technique for real-time multimedia traffic in a best-effort scenario	<i>Mario Barbera, Francesco Licandro, Lombardo Alfio, Giovanni Schembra, Giovanni Tusa</i>	487-177
Scenario Construction for Intrusion Detection Alerts	<i>Constantine Manikopoulos, Bin He, Yuedong Wu</i>	487-688
QPSK and BPSK Synchronous Sequence DS-CDMA Satellite Links	<i>Mario Reyes-Ayala, Edgar Alejandro Andrade-González, Jesús Roa-Franco</i>	487-679
Adding Dynamic Behaviour To Domains: Combination of In Band Implicit Signalling and Policy Management	<i>Paolo Di Francesco, Pierluigi Gallo, Vincenzo Fodera, Corinne Sieux, Herve Aiache</i>	487-677
Mobile handset radiation efficiency as a function of the antenna position relative to the human head	<i>T. Zervos, A.A. Alexandridis, V.V. Petrovic, K. Dangakis, B.M. Kolundzija, A.R. Dordevic, C. Soras</i>	487-462

CONFERENCE: 8th WSEAS International Conference on COMPUTERS

SESSION: Algorithms and Architectures in Computer Engineering

ROOM D', 17:30-21:00

(coffee-break around the swimming-pool: 17:00-17:30)

Chair: Jan Glasa, Catherine Hu

High efficiency feature extraction based on 1-D wavelet transform for real-time face recognition	<i>Ching-han Chen, Chia-te Chu</i>	487-626
Highly concurrent VLSI computing structures for DCA	<i>Jan Glasa</i>	487-456
Cluster visualization in SOM	<i>Emad Monier</i>	487-538
Applications of watershed algorithms on x ray imag	<i>H.S.sheshadri, A.Kandaswamy.</i>	487-544
Prefetching Web Objects with Inter-Query Relationships	<i>Shiu Hin Wang, Vincent Ng</i>	487-669
Text categorization with feature dictionary – prob	<i>Hana Janakova</i>	487-556
VLSI architecture for image denoising in Wavelet domain	<i>Bharanitharan</i>	487-584
Quorum Theory For The Mutual Exclusion Problem In	<i>F. Dahamni M. Lalam A. Henni</i>	487-563
A new parallel algorithm for fast generation of discrete Chebyshev polynomials	<i>Belgacem Ben Youssef</i>	487-678

Deriving Object Models from Use Cases in Embedded Systems	<i>Mohamed Tahar Kimour and Djamel Meslati</i>	487-689
Hyper system: A model for communication system	<i>Ghoualmi-Zine Nacira Araar Abdelaziz</i>	487-580
Aspect mining using a specification driven program slicing approach	<i>Nora Bounour, Fadila Atil, Said Ghoul</i>	487-690
Cultural Perception and Technique as Constraints in Computational Design Evolution: A Case Study of Generative Chinese Typography	<i>Catherine Hu and Thomas Fischer</i>	487-469
Layered Stream Scheduling Scheme for Cluster Video Servers	<i>Limin Zhu</i>	487-616
End-to-End Web service Performance comparison with web server stress Tool version 6.0.	<i>Aramudhan M., V.Rhymend Uthairaj</i>	487-713
Remote Access Level Redirection for overloaded web server	<i>Aramudhan M., V.Rhymend Uthairaj</i>	487-714

## **JULY 15, 2004**

CONFERENCE: 8th WSEAS International Conference on COMPUTERS

SESSION: Modern Techniques and Applications

ROOM A', 08:00-11:00

(coffee-break around the swimming-pool: 11:00-11:30)

Chair: V.Gountsidou, G. Adam

Multi-Valued Relationship Attributes in Extended Entity Relationship Model and Their Mapping to Relational Schema	<i>Tauqeer Hussain, Shafay Shamail, Mian M. Awais</i>	487-449
Executive Information System for Decision Making of Forest productivity.	<i>Asha Khanna</i>	487-623
Clustering of Scientific Information for Optoelectronics Material GaN	<i>V.Gountsidou.H.M.Polatoglou</i>	487-328
A Machine Learning Multi-Agent architecture to provide adaptation in a standard-based Learning Management System	<i>Olga C. Santos, Jes-s G. Boticario, C. Barrera</i>	487-656
Improving Web proxy caching on browsing JPEG2000 remote images with JPIP	<i>J.P. Ortiz, V.G. Ruiz, I. Garcia</i>	487-316

The CLOZE Procedure and the Learning of Programming	<i>Stuart Garner</i>	487-324
Comparison and analysis between middleware standards of data broadcasting	<i>Seongki Kim, Soohong Kim, Sangyong Han</i>	487-417
Watershed based detection of multiple sclerosis lesions in MR Images	<i>Edoardo Ardizzone, Roberto Pirrone, Orazio Gambino</i>	487-421
Analytical structure of three input fuzzy PID power system stabilizer with decoupled rules	<i>K.R.Sudha ,K.A.Gopalarao</i>	487-442
Rules to General Rule Structure Converter	<i>Nabil Hewahi</i>	487-512
Detecting Stego-Objects in Still Images: An Integrated Approach	<i>Tariq Al Hawi, Mahmoud Al Qutayri, Hassan Barada</i>	487-309
Dynamic web page generation for Academic Institutions.	<i>E. O. Garcia, H.D. Cortes, J.A. del Rio</i>	487-631
Performance prediction and physical design of J2EE based Web applications	<i>Umesh Bellur, Akhilesh Shirabate</i>	487-346

CONFERENCE: 8th WSEAS International Conference on SYSTEMS

SESSION: Automatic Control and Systems Theory

ROOM B', 08:00-11:00

(coffee-break around the swimming-pool: 11:00-11:30)

Chair: Peter A. Stubberud , Imre Rudas, Vrassidas Leopoulos,

sequential state estimates subject to multiple equality constraints	<i>Peter A. Stubberud Allen R. Stubberud</i>	487-791
An Optimal Four Wheel Steering Vehicles Control Based on Pole Placement Method	<i>M.R. Mostavi, M. Shariatpanahi and R. Kazemi</i>	487-756
Performance Monitoring and Control of Robotic Manipulators Using Kalman-Filter Approach	<i>Attila I. Bencsik, Imre Rudas</i>	487-760
Hybrid Compression of Hyperspectral Images with Resizing	<i>Namhoon Baek and Chulhee Lee</i>	487-755
New LMS Algorithms Based on the Error Normalization Procedure	<i>Zayed Ramadan and Aexander Poularikas</i>	487-750
Scale-Invariant Forms of Conservation Equations in Reactive Fields and a Modified Hydro-Thermo-Diffusive Theory of Laminar Flames	<i>Siavash H. Sohrab</i>	487-740
Extending UML 1.5 for fuzzy conceptual modeling: An strictly additive approach	<i>Miguel-Angel Sicilia, Nikos Mastorakis</i>	487-732
Nonlinear four wheel slip-ratio control of Anti-	<i>Hassan Ebrahimirad, M. J. Yazdanpanah</i>	487-734

lock brake systems	<i>and R. Kazemi</i>	
Dynamic management of text corpora	<i>Grigori Sidorov</i>	487-818
The benefits of e-commerce: A case study of the Greek para-pharmaceutical industry	<i>Vrassidas Leopoulos, Konstantinos Kirytopoulos, Dimitra Voulgaridou</i>	487-808
Neural Network Nonlinear Modeling of a Common Rail Injection System for a CNG Engine	<i>Bruno Maione, Paolo Lino, Alessandro Rizzo</i>	487-794
Residual generation synthesis for fault detection and isolation	<i>Kechida Sihem Debbache Nasr eddine Ghoul-hadiby Rachida Tebbikh Hichem</i>	487-765
A genetic algorithm method to solve machine assignment problem in a flexible manufacturing cell modelled with hierarchical petri nets	<i>Ghoul_hadiby Rachida Tebbikh Hichem Kechida Sihem</i>	487-766
Adaptive Hysteresis using self-training for micro-stepping	<i>Muhammad Saad Saleem, Prof. Dr. Mian Muhammad Saleem</i>	487-764
Hybrid Neural Sliding Mode Controller Design for Robotic Manipulator	<i>Hung-Yuan Chung, Lon-Chen Hung</i>	487-781
Fuzzy Sliding Mode Controller with CMAC Application Rigid Robot Manipulators	<i>Hung-Yuan Chung, Lon-Chen Hung</i>	487-784
Synthesize Neural Sliding Mode Controller for Nonlinear System	<i>Hung-Yuan Chung, Lon-Chen Hung</i>	487-786
Adaptability of Fuzzy Sliding-Mode Control Design	<i>Hung-Yuan Chung, Lon-Chen Hung</i>	487-787
Design of Integrated Si Pressure Sensor using Methodology of Microsystem Model Development	<i>Miroslav Husak</i>	487-789

CONFERENCE: 8th WSEAS International Conference on COMMUNICATIONS

SESSION: Telecommunication Systems and Electromagnetic Compatibility

ROOM A', 11:30-14:00

(coffee-break around the swimming-pool: 11:00-11:30)

Chair: Alexandre Grebennikov

Transformation of Arbitrary Simply Connected Star Domain to Unit Circle and Application for Solution of Boundary Problems for Laplace Equation (invited paper)	<i>Alexandre Grebennikov</i>	487-827
Software Design Of Store And Forward Payload For A MicroSatellite	<i>V.Vaidehi, S.Muthuselvam, R.Srinivasan, Praveen Kumar, V.Nirmal Kumar</i>	487-721
Design and Characterization Considerations for EMC/RFI Filters	<i>F. Choubani, N.E.Mastorakis</i>	487-730
Operating Effective Measurement Systems for	<i>F. Choubani, F. Omri, N.E. Mastorakis</i>	487-731



characterizing UWB wireless indoor propagation		
four layers opened slot resonator	<i>Humberto C. Chaves Fernandes, Érico C. Braz and Manoel B. L. Aquino</i>	487-790
A Channel Sharing Scheme in Cellular Systems for Hot Spot Traffic Case	<i>Mohammad Reza Tarihi, Kamal Mohamedpour</i>	487-811
Design for Interworking between High-speed Portable Internet and Wireless LANs using different AAA protocols	<i>U. Bellur</i>	487-767

CONFERENCE: 8th WSEAS International Conference on COMPUTERS

SESSION: Software Engineering and Modern Computer Systems

ROOM B', 11:30-15:00

(coffee-break around the swimming-pool: 11:00-11:30)

Chair: Peter A. Stubberud , Imre Rudas, Vrassidas Leopoulos,

A Linear Programming Approach for Calculation of All Stabilizing	Mahdi Jalili-Kharaajoo	487-832
Adaptive Active Network Control and Management System (AANCMS)	Morteza Mosavi and Mahdi Jalili-Kharaajoo	487-833
Application of Intelligent Agents to Seamless Business: Design of a Smart Business	Mohsen Akbari and Mahdi Jalili-Kharaajoo	487-831
Context-sensitive relational division	<i>Richard Elling Moe</i>	487-757
Software Restructuring to Improve Schedulability	<i>Rachid Boudour, Mohamed T. Kimour</i>	487-739
Genetic algorithm for parameters estimation and training within hidden markov trees	<i>Yamina Bordjiba, Hayet Merouani</i>	487-737
Keyword based authorization in PKI	<i>N.DuraiPandian, C.Chellappan</i>	487-736
Explicit method to optimize surface mesh quality	<i>Irina Semenova, Ichiro Hagiwara</i>	487-762
GUI based GCS for 32-bit embedded controller	<i>Elayraja Dorairaj, P.V.Ramakrishna</i>	487-748
KDS transformation for data compression	<i>Ionut Popa</i>	487-840
cardiac segmentation from mri-tagged and ct images	<i>D. Metaxas, T. Chen, X. Huang, I. Axel</i>	487-828
A Global Learning Environment	<i>Vasso Stylianou, Andreas Savva</i>	487-823
In Search of a Business Code of Ethical Computer Practices	<i>Vasso Stylianou, Kristina Abrossimova, Andreas Savva</i>	487-821
Private Tutoring In Cyprus: A Comparative Analysis	<i>Maria Vraka, Andreas Seghiou, Vasso Stylianou, Andreas Savva, George Portides</i>	487-820

MRIMS: A new Middleware Connective Level for RIS and PACS	<i>Lamprini T. Kolovou, Panayotis Galanopoulos, Dimitris Lymberopoulos</i>	487-817
Performance Evaluation of an Adaptive Volterra/Hybrid Equalizer in a Nonlinear Magneto-Optic Data Storage Channel	<i>Sunil Gupta</i>	487-816
Teaching to computer based on neural network model	<i>Bahram Tafaghodinia, Zohreh Heidary</i>	487-815
A pattern recognition technique for voxel data based on 3D masks	<i>Motofumi T. Suzuki, Yoshitomo Yaginuma, Hiroshi Kato, Tsuneo Yamada</i>	487-775
A dynamic design model for online learning system development	<i>Wanwu Guo, Jihong Chen</i>	487-798
Estimating Effort of Incremental Integration Software Testing and Design Metrics	<i>Zorica M. Mihajlovic, Dusan M. Velasevic, Nikos E. Mastorakis</i>	487-774
Performance Evaluation and Modeling of Web Server Systems	<i>M. Riaz Moghal, N. Hussain, M. S. Mirza, M. Waris Mirza, M. S. Choudry</i>	487-835
Efficient Computer Architecture Design Using Hardware Descriptive Language	<i>M. Riaz Moghal, M. S. Ahmed, N. Hussain, M. S. Mirza, M. Waris Mirza</i>	487-836

CONFERENCE: 8th WSEAS International Conference on COMMUNICATIONS

INTERNATIONAL WORKSHOP: Cryptography, Data and Network Security (Part II)

ROOM A', 15:00-17:00

Chair: Nikolaos Bardis, Marilena Mitrouli, Khaled E. A. Negm

An Efficient Method For Image Steganography	<i>K.Sureshkumar,D.Chandrasekaran</i>	487-746
Traffic Restoration Algorithms in Communication Networks	<i>Vladica Stanisic and Michael Devetsikiotis</i>	487-020
Combinatorial method for boolean SAC functions designing	<i>Nikolaos Bardis</i>	487-801
Spread spectrum robust watermarking for NURBS surfaces	<i>Mihai Mitrea Titus Zaharia Francoise Preteux</i>	487-792
Echoplex error control system using avalanche transformations	<i>Nikolaos Bardis</i>	487-800
Method of designing a code controlled generator of balanced boolean functions which satisfy the strict avalanche criterion	<i>Nikolaos Bardis</i>	487-803
Methods for design of balanced boolean functions satisfying strict avalanche criterion	<i>N.G. Bardis, A.P. Markovskyy, M. Mitrouli, A. Polymenopoulos</i>	487-825
Method for designing pseudorandom binary sequences generators on Nonlinear Feedback Shift Register (NFSR)	<i>N.G Bardis, A.P. Markovskyy, D.V. Andrikou</i>	487-804
Increasing the hash-memory effectiveness by using reconfigurable Boolean hash functions generators	<i>E.G Bardis, A.Leros, D.V. Andrikou</i>	487-805

error detection control system based on checksum using orthogonal systems of SAC functions	<i>Apostolos Leros</i>	487-806
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