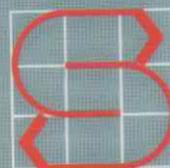


PROGRAMME CSCS-15

15th INTERNATIONAL CONFERENCE
ON CONTROL SYSTEMS
AND COMPUTER SCIENCE

25-27 May 2005

CONTROL SYSTEMS



COMPUTER SCIENCE

POLITEHNICA University of Bucharest



ROMANIAN SOCIETY OF CONTROL ENGINEERING AND TECHNICAL INFORMATICS



CSCS-15
15th INTERNATIONAL CONFERENCE ON
CONTROL SYSTEMS AND COMPUTER
SCIENCE

May 25-27, 2005
POLITEHNICA University of Bucharest

PROGRAMME

15th INTERNATIONAL CONFERENCE ON CONTROL SYSTEMS AND COMPUTER SCIENCE

CSCS15 is the 15th biennial conference to be held at "POLITEHNICA" University of Bucharest, Bucharest, Romania, from 25 to 27 May 2005. The technical programme reflects the aims of the Conference. It consists of specialized sections dedicated to major topics in theory and applications of systems science and computer science.

ORGANIZERS

CSCS15 is organized by:

- Romanian Society of Control Engineering and Technical Informatics (SRAIT)
- Romanian Academy – "Information Science and Technology" Section
- IEEE Region 8
- Faculty of Control and Computers of "POLITEHNICA" University of Bucharest.

INTERNATIONAL PROGRAMME COMMITTEE

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TIMETABLE

Wednesday, May 25, 2005

14.00 – 18.00 Registration

Thursday, May 26, 2005

8.00 – 18.00 Registration
9.00 – 9.30 Opening Ceremony (EC105)
9.30 – 11.15 Conference sessions
11.15 – 11.30 Coffee break
11.30 – 13.00 Conference sessions
13.00 – 14.30 Lunch
14.30 – 16.15 Conference sessions
16.15 – 16.30 Coffee break
16.30 – 18.15 Conference sessions
19.30 Get Acquainted Cocktail Party

Friday, May 27, 2005

8.00 – 18.00 Registration
8.30 – 10.30 Conference sessions
10.30 – 11.00 Coffee break
11.00 – 13.00 Conference sessions
13.00 – 14.00 Lunch
14.00 – 16.00 Conference sessions
16.00 – 16.30 Coffee break
16.30 – 18.30 Conference sessions
18.30 – 19.00 Closing Ceremony
20.00 Dinner

Session A1. DATA ACQUISITION AND MEASUREMENT

Session Chairs: Radu DOBRESCU, Traian IONESCU - ROMANIA

Thursday, May 26, 2005, 9.30 – 11.15, Room A1

- A1.1 Design and Use of a Dedicated Radio Modem for Mobile Sensor Networks
Radu Dobrescu, Maximilian Nicolae, Dan Popescu, Radu Varbanescu - ROMANIA
- A1.2 Electric Powers Measurement with LabVIEW
V. D. Ulieru, C. Cepisca, H. Andrei - ROMANIA
- A1.3 Acquisition and Monitoring of Process Parameters Using Internet
Madalin Stefan Vlad, Irina Rancea, Valentin Sgarciu - ROMANIA
- A1.4 Data Logging and Analysis by Virtual Instrumentation
Nicolae Patrascoiu, Adrian Marius Tomus - ROMANIA
- A1.5 Automatic Car License Plate Recongnition System
Gheorghe Sebestyen, Zoltan Pap - ROMANIA
- A1.6 The Architecture of the Virtual Industrial Enterprise - A New Paradigm in Distributed Data Processing and Communications
Marius Guran - ROMANIA
- A1.7 A Fingerprint-Based Structure and Algorithm for Secure Access
Traian C. Ionescu, Vlad Nagea, Cristian Guef - ROMANIA
- A1.8 The Use of Biometrics in Secure Client-Server Transactions
Traian C. Ionescu, Vlad Nagea, Cristian Guef - ROMANIA

Session A2. MODELING AND SIMULATION (I)

Session Chairs: Silviu DUMITRIU, Emil POP - ROMANIA

Thursday, May 26, 2005, 9.30 – 11.15, Room A2

- A2.1 Modeling Simulation and Software Implementation of Nonlinear Controler by Distributions Properties
Emil Pop, Monica Leba - ROMANIA
- A2.2 Numerical Phenomena in the Computer Simulations of Some Physical Processes
D.A. Iordache, V. Iordache - ROMANIA, P.P. Delsanto - ITALY
- A2.3 Complex Thermal Experimental Benchmark. Implementing and Modelling Notes
Dorin Isoc, Aurelian D. Ignat - ROMANIA
- A2.4 A Variant of Numerical Modelling and Simulation for a Kinetic Rapid Redox Reaction Cu^{2+} with $\text{S}_2\text{O}_3^{2-}$
M. L. Unguresan, M. Abrudean, T. Colosi - ROMANIA
- A2.5 Electrohidraulic Systems' Simulation using AMESim Software
M. Lebrun - FRANCE, D. Vasiliu, N. Vasiliu - ROMANIA
- A2.6 Modular System for Neural Analysis and Stimulation
S. Pasca, R. Strungaru, M. Ungureanu - ROMANIA
- A2.7 Detection of Airway Obstructions and Sleep Apnea by Analyzing the Submental EMG
M. Ungureanu, R. Strungaru, S. Pasca - ROMANIA

Session A2. MODELING AND SIMULATION (II)

Session Chairs: Tiberiu COLOSI, Sergiu ILIESCU - ROMANIA

Thursday, May 26, 2005, 11:30 – 13.00, Room A1

- A2.8 Modelling and Simulation of the Isotopic Separation Processes
Francisc Dulf, Mihai Abrudean, Tiberiu Colosi - ROMANIA

- A2.9** Applications of a Modeling and Numerical Simulation Procedure for Distributed Parameters Processes
Eva Dulf, Tiberiu Colosi, Mihai Abrudean – ROMANIA
- A2.10** About the Mathematical Modelling and Simulation of the (^{15}N) Isotope Separation Column
Eva Dulf, Clement Festila – ROMANIA
- A2.11** Process Modeling and Management in Supply Chains Using XML-Nets
Dan Vacariu, Viorel Minzu, Daniela Cernega – ROMANIA
- A2.12** System Modelling Versus Residual Generation in FDI Methods
I.Fagarasan, S. St.Iliescu, S.Barbulea, P.Arsene – ROMANIA
- A2.13** On the Implementations of the Idea of Electromechanical Systems' Co-simulation
D. Cazacu, E.Lefter – ROMANIA
- A2.14** Multigrid Techniques for Inverse Problems Involving Incompressible Flows
Andrei Draganescu, Bart Van Bloemen Waanders - USA

Session A3. SYSTEMS THEORY

Session Chairs: Corneliu POPEEA, Adrian-Mihai STOICA - ROMANIA

Thursday May 26, 2005, 11.30 – 13.00, Room A2

- A3.1** Some New Results of Stability of Systems with Saturation and Multiple Delay in Command and Multiple Delay in State
Marcel Nicola – ROMANIA
- A3.2** State Feedback Q-Stabilization with Robust H^∞ Performance for Systems with LFT Based Parametric Uncertainty
Adrian-Mihail Stoica – ROMANIA
- A3.3** Rotational Interpolation With Dissipativity Constraints
Corneliu Popeea, Boris Jora – ROMANIA
- A3.4** Diagonal Invariance and Comparison Methods
Octavian Pastravanu, Mihaela-Hanako Matcovschi – ROMANIA
- A3.5** Sythesis Methodology For Active Element Using Impedances - Based Bond Graph Methods
Nasta Tanasescu – ROMANIA
- A3.6** A State Space Approach to the GPC Design in Delta Operator
Cristina Haluca, Corneliu Lazar - ROMANIA
- A3.7** Mathematical Programs with Equilibrium Constrains and Applications to Control
Mihai Anitescu – USA

Session A4. PETRI NETS

Session Chairs: Hasanne Alla – FRANCE, Simona CARAMIHAI - ROMANIA

Thursday May 26, 2005, 14.30 – 16.15, Room A1

- A4.1** Supervisor Design for a Class of Discrete Event Systems
Daniela Cristina Cernega – ROMANIA
- A4.2** Supervisory Synthesis for Safe Petri Nets
C. Bratosin, S. I. Caramihai – ROMANIA Hassane Alla – FRANCE
- A4.3** From Forbidden States to Linear Constraints for the Optimal Supervisory Synthesis
Abbas Dideban, Hassane Alla – FRANCE
- A4.4** Controlling A Manufacturing Cell Using a Multiagent System
Leonard Iurescu – ROMANIA
- A4.5** Timed Continuous Extended State Machines – Study of Markings Evolutions
Mihaela-Hanako Matcovschi, Octavian Pastravanu – ROMANIA

- A4.6 Petri Nets in Hybrid System Simulation Under Simulink
M.H. Matcovschi, C. Lefter, O. Pastravanu – ROMANIA
- A4.7 SME's Integration on Collaborative Enterprise
Dan Nitescu, Radu Vasile - ROMANIA

INVITED SESION AIS1. BUILDING BRIDGES BETWEEN HEALTHCARE AND ENGINEERING

Session Chairs: Lacramioara Stoicu-TIVADAR - ROMANIA, Leonidas ORFANIDIS – GREECE

Thursday, May 26, 2005, 14.30 – 16.15, Room A2

- A5.1 Statistical and Logical Inference in Medicine
Adriana Albu – ROMANIA
- A5.2 Aspects Regarding the Maintenance of a GP Information System in the Framework of a Sentinel Dispensary Network
Dorin Berian – ROMANIA
- A5.3 A Model Framework to Characterise the NEHR Preparedness: A South-East European Perspective
Leonidas ORFANIDIS – GREECE
- A5.4 A Meta-Incremental Development of an Integrated Information System for General Practice.
Vasile Stoicu-Tivadar – ROMANIA
- A5.5 Continuous Wavelet Transform and Heart Rate Variability as Methods for ECG Signal Processing - A new diagnostic tool
Victor Dan Moga – ROMANIA

INVITED SESION AIS2. E-LEARNING APPLICATIONS

Session Chairs: Jacques LOTTIN - FRANCE, Dumitru POPESCU – ROMANIA

Thursday, May 26, 2005, 16.30-18.15, Room A2

- A6.1 Virtual Laboratory – Didactical Platform Remote Control
*Ion Matei, Ciprian Lupu, Dumitru Popescu – ROMANIA, Luk DeBacker
Kahosl University, Gent - BELGIUM, Aziz Nakrachi - FRANCE*
- A6.2 Remote Control of a Magnetic Levitation System
Jacques Lottin – FRANCE, Dumitru Popescu – ROMANIA
- A6.3 Control of Energy Consumption in Home Automation by Ressource Constrain Scheduling
Duy Long Ha, Stéphane Ploix, Eric Zamaï, Mireille Jacomino - FRANCE
- A6.4 E-Learning-SkyNurse Satellite Communication System
Christina Drace – ITALY, Ion Matei, Catalin Petrescu, Sorin Popa – ROMANIA
- A6.5 Computer-Based Learning Shell for Discrete Event System
S. I. Caramihai, J. Culita, C. Munteanu – ROMANIA

**Session A7. ADAPTIVE CONTROL
ELECTRICAL DRIVE**

Session Chairs: Constantin MARIN, Clement FESTILA – ROMANIA

Friday, May 27, 2005, 8.30 – 10.30, Room A1

- A7.1 Adaptive Noise Cancellation Using Labview
C. Dumitrescu – ROMANIA
- A7.2 Adaptive Control of DC Drives Based on Pseudo-Derivative Feedback
A.K.Boglou, S.Pitarokilis, G.D.Pasgianos, K.G.Arvanitis – GREECE
- A7.3 Adaptive Control Strategies for a Class of Recycled Depollution Bioprocesses
Emil Petre, Constantin Marin, Dan Selisteanu – ROMANIA
- A7.4 Stability Analysis of the Direct Field Oriented Control System of the Induction Motor
Corneliu Mandrescu, Olimpiu Stoicuta – ROMANIA
- A7.5 About the Optimal Operation of the Inverter FED Induction Motor
Rodica Festila, Vasile Tulbure, Clement Festila – ROMANIA
- A7.6 Adaptive Control Based on Locally Learning Techniques
Nicolae Constantin – ROMANIA

Session A8. OPTIMAL AND PREDICTIVE CONTROL

Session Chairs: Didier DUMUR - FRANCE, Nicolae CONSTANTIN - ROMANIA

Friday, May 27, 2005, 8.30 – 10.30, Room A2

- A8.1 The Generalized Predictive Control Applied to an Induction Drive
Popescu Marius-Constantin, Petrisor Anca – ROMANIA
- A8.2 Constrained Receding Horizon Predictive Control for Position Tracking of an Induction Motor
Sorin Olaru, Didier Dumur – FRANCE
- A8.3 Genetic Algorithm – Quadratic Programming Based Predictive Control For MLD Systems
Jean Thomas - EGYPT, Sorin Olaru, Jean Buisson, Didier Dumur - FRANCE
- A8.4 Robust Predictive Control Applied Within a Virtual Machine Tool to Positioning During Complex Form Machining
Mara Susanu, Didier Dumur – FRANCE
- A8.5 Run-to-run Optimization of Filamentous Fungal Fermentation
L.Bodisz, D.Bonvin – SWITZERLAND, B.Srinivasan – CANADA
- A8.6 A Predictive Control Algorithm Applied to the Inverse Pendulum on a Cart
Radu Balan, Vistrian Marties, Olimpiu Hancu, Sergiu Stan – ROMANIA
- A8.7 Solving Optimal Control Problems by Means of Genetic Algorithms
Ecaterina Vladu – ROMANIA

INVITED SESSION AIS3. ENVIRONMENTAL CONTROL AND MONITORING SYSTEMS

Session Chairs: Costica NITU – ROMANIA, F. A. MKRITCHYAN – RUSSIA

Friday, May 27, 2005, 8.30 – 10.30, Room A3

- A9.1 Assessing the Environmental Parameters
Vladimir F. Krapivin, Ivan Potapov - RUSSIA, Costica I. Nitu – ROMANIA
- A9.2 Ecoinformatics Based Approach to the Monitoring and Prediction of the Natural Catastrophes
K Ya. Kondratyev, V.F. Krapivin - RUSSIA, Costica I. Nitu – ROMANIA
- A9.3 Remote Monitoring of the Soil-Plant Formations
Vladimir F. Krapivin, Anatolij M. Shutko, Alexander A. Chukhlantsev, Sergei P. Golovachev – RUSSIA, Costica I. Nitu – ROMANIA
- A9.4 An Adaptive Spectroellipsometric Technology for the Precise Real-Time Monitoring of the Aquatic Environment,

F.A. Mkrtchyan, V. F. Krapivin, V.I. Kovalev, V.V. Klimov, A. I. Rukovichnikov, S.P. Golovachev – RUSSIA

- A9.5** An Adaptive Technology for the Classification and Qualitative Interpretation of the Data of Remote Monitoring of Water Surface
Mkrtchyan F.A., Krapivin V.F., Golovachev S.P., Shapovalov S.M. – RUSSIA
- A9.6** Data Compression and Transfer within Environmental Processes
Alexandru Dumitrascu, Hangiu Mihai, Dan Stefanoiu - ROMANIA
- A9.7** High Energy Efficiency Wireless Sensor Networks for Environmental Monitoring
Costica Nitu, Anda Dobrescu – ROMANIA
- A9.8** A Distributed Model for Decision Support Systems
Corneliu C.Nitu – ROMANIA
- A9.9** Environmental Image Integration within a Web-Based Application
Gabriel Costache – ROMANIA
- A9.10** Using G.I.S. Technology for Digital Representation and Monitoring of Floodable Zones
Radu Ungureanu – ROMANIA

Session A10. CONTROL SYSTEMS

Session Chairs: Dan NECSULESCU, Ioana MIHU - ROMANIA

Friday, May 27, 2005, 11.00 – 13.00, Room A1

- A10.1** Automatic System for the Wheat Grind Process
Vintila Florin Filipescu – ROMANIA
- A10.2** Analysis of Formation Control Schemes for Vechiles Subject to Kinematic Constraints
Maciek Kepka, Dan Neculescu, Jerzy Sasiadek - CANADA
- A10.3** A Hierarchical Architecture for Control Systems Using Blackboard Technology
Ozten Chelai – ROMANIA
- A10.4** On the Robustness of Modified Smith Predictor Control for Time - Delay Systems
Ioan Dumitrache, Ioana Mihu, Raluca Misleanu – ROMANIA
- A10.5** Performance Guided Hybrid LQ Controller for Time-Delay Systems
Vojislav Filipovic – SERBIA AND MONTENEGRO
- A10.6** Leader Election Using Spatial Information for Real-Time Cooperative Control: Synthesis and Experimental Results
Cristian Tapus, Lars B. Cremean – USA
- A10.7** Practical Solution for Software Implementation of Algorithms Switching in Multiple Models Control Systems
Ciprian Lupu, Catalin Petrescu, Dumitru Popescu – ROMANIA

Session A11. INDUSTRIAL PROCESS CONTROL AND IDENTIFICATION

Session Chairs: Dumitru POPESCU, Sergiu CARAMAN - ROMANIA

Friday, May 27, 2005, 11.00 – 13.00, Room A2

- A11.1** Maximum Power Point Tracking for Wind Power Systems: A Minimal Knowledge Approach
A.I. Bratcu, I. Munteanu, Dan Dulman – ROMANIA
- A11.2** Identification of Nonlinear Plants Via Distributions; Application for Wastewater Biodegradation Process
C. Marin, E. Petre, D. Selisteanu, D. Sendrescu – ROMANIA
- A11.3** Robust Multimodel Control Using QFT Techniques of a Wastewater Treatment Process
S. Caraman, M. Barbu, E. Ceanga – ROMANIA
- A11.4** Advanced Control of Aerobic Industrial Wastewater Treatment

Matei Vinatoru, Eugen Iancu - ROMANIA

- A11.5** The Remote Control of Industrial Processes Using the Mobile Phone Network
Ravigan Florin, Petrisor Anca - ROMANIA

Session A12. INTELLIGENT SYSTEMS

Session Chairs: Matei VANATORU, Lavinia FERARIU - ROMANIA

Friday May 27, 2005, 11.00 - 13.00, Room A3

- A12.1** Efficient Algorithms for the Planning of Some Intelligent Vehicles Used for the Detection and Extinction of Fire
Valeriu Lupu, Catalin Lupu - ROMANIA
- A12.2** Evolutionary Design of Heterogenous Neural Architectures with Application to System Identification
Lavinia Ferariu - ROMANIA
- A12.3** A Fault Detection and Isolation System Using Neural Networks
Eugen Iancu, Matei Vanatoru - ROMANIA
- A12.4** Simulation of an Implementation for a Two Decision-Making Layers Intelligent Vehicle-Highway System
Valentin Avram - ROMANIA
- A12.5** Training MLP Neural Networks by Means of Genetic Algorithms
Ecaterina Emilia Vladu, Sanda Dale - ROMANIA

Session A13. ROBOT CONTROL

Session Chairs: Adrian FILIPESCU, Monica DRAGOICEA - ROMANIA

Friday, May 27, 2005, 14.00-16.00, Room A1

- A13.1** Reinforcement Learning Applied in Mobile Robot Path Planning
Mihaela Oprea - ROMANIA
- A13.2** Diversity and Intelligence in Multi-Robot Teams
Monica Dragoicea - ROMANIA
- A13.3** Attractiveness Condition and Parameter Identification for Robust Sliding-Mode WMR Control
A. Filipescu, A. Mocanu, S. Stamatescu - ROMANIA
- A13.4** The Kinematic Model and the Simulation of an Omidirectional Mobile Robot
Angela Egri, Olimpiu Stoicuta - ROMANIA
- A13.5** The Dynamic Accuracy Modeling in Robotics
Iuliu Negrean, Gabriela-Darius Albetel, Dan-Calin Negrean - ROMANIA

INVITED SESION AIS4 (I). MOBILE ROBOTICS

Session Chairs: Mircea IVANESCU, Catalin BUIU - ROMANIA

Friday, May 27, 2005, 14.00-16.00, Room A3

- A14.1** Rapid Prototyping of a Mobile Robot Controller Using FPGA Techonology
S. Nicola - ROMANIA
- A14.2** Model of Underwater Mobile Robot Motion in Disturbed Environment
M.C. Niculescu - ROMANIA
- A14.3** Walking Movement with Controlled Style of the Passive Leg
A. Petrisor - ROMANIA
- A14.4** Videoservoing for Mobile Robots
D. Cojocaru - ROMANIA

Session A15. ROBOTICS

Session Chairs: Dan POPESCU, Silviu IONITA - ROMANIA

Friday, May 27, 2005, 16.30-18.30, Room A1

- A15.1** HIL Simulation and Software Control Implementation for Five Degrees of Mobility Robot by Cinematic Inverted Model
M. Leba, E. Pop, P. Stoian - ROMANIA
- A15.2** Beyond the Resolution of Machine Vision
K. Khalili, S.A. Razavi - IRAN
- A15.3** High Speed, Multitasking Visual Robot Guidance
Th. Borangiu, F. D. Anton, S. Tunaru, A. Dogar - ROMANIA, M. Manu - USA
- A15.4** Vision Based Anticollision System with Application on Industrial Robots
Silviu Ionita, Petre Angheliescu - ROMANIA
- A15.5** Tracking Trajectories for Walking Robot Control
Constantin Marin, Anca Petrisor - ROMANIA

INVITED SESION AIS5. NEW MODELS IN BIO-INFORMATICS AND HUMAN-RELATED SCIENCES

Session Chairs: Horia-Nicolai TEODORESCU - ROMANIA

Friday, May 27, 2005, 16.30 - 18.30, Room A2

- A16.1** Tent Map Based Chaotic Circuits Application to Neuromorphic Eye
Horia-Nicolai Teodorescu, Ciprian Zamfir - ROMANIA
- A16.2** Neural Network Implementation of a Decision Block for the Evaluation of Genomic Sequences Recognition Scores
Lucian-Iulian Fira, Horia-Nicolai Teodorescu - ROMANIA
- A16.3** Recurrent Fuzzy Rules (Teodorescu's Fuzzy Systems) in Economic Process Modeling
Marius-Dan Zbancioc - ROMANIA
- A16.4** Assesment of Voice Quality Based on Nonlinear Dymanic Analysis
Horia-Nicolai Teodorescu, Raluca Ganea, Monica Feraru, Ada Burlui - ROMANIA
- A16.5** Model of Artificial Intelligence. Between Digital and Analog: From Formal to Intuitive Reasoning
S. Ionita, E. Sofron, M.M. Ionita - ROMANIA
- A16.6** Adaptive Fuzzy Interpolative Controllers and Applications
Balas Marius, Balas Valentina - ROMANIA

INVITED SESION AIS4 (II). MOBILE ROBOTICS

Session Chairs: Mircea IVANESCU, Catalin BUIU - ROMANIA

Friday, May 27, 2005, 16.30-18.30, Room A3

- A14.5** New Trends in Mobile Robots
M. Ivanescu - ROMANIA
- A14.6** Fuzzy Logic Control for Mobile Robots Based on Artificial Potential Field Method
M. Ivanescu - ROMANIA
- A14.7** Controlling a Mobile Robot Along Planned Trajectories
M. Nitulescu - ROMANIA
- A14.8** Control Strategy and Kinematics for High Risk Environment Inspection Mobile Robot
N. Bizdoaca - ROMANIA

Session C1. ARTIFICIAL INTELLIGENCE AND EXPERT SYSTEMS (I)

Session Chairs: Cristian GIUMALE, Adina FLOREA - ROMANIA

Thursday, May 26, 2005, 9.30 – 11.15, Room C1

- C1.1** Parallel Java Expert System Shell
Dana Petcu - ROMANIA
- C1.2** Argumentative Agents for Flexible Diagnosis in Health Care
Ioan Alfred Letia, Raluca Vartic – ROMANIA
- C1.3** A Cognitive Trust Approach of Delegation in Multi-Agent Systems
Ioan Alfred Letia, Radu Razvan Slavescu – ROMANIA
- C1.4** Z-Based Agents for Service Oriented Computing
Ioan Alfred Letia, Anca Chioran, Adrian Groza - ROMANIA
- C1.5** Securing Interaction in Agent-Based Systems
Cristian Giumale, Lorina Negreanu- ROMANIA
- C1.6** The Effect of Flag Introduction on the Explosion of Nogood Values when using the Asynchronous Backtracking Technique
Muscalagiu Ionel, Balan Mihai- ROMANIA
- C1.7** Syntactic Recognition Using Fuzzy Grammar
Decebal Popescu, Cornel Popescu – ROMANIA
- C1.8** Neuro-Fuzzy System for Fingerprint Recognition
Nirvana Popescu, Cornel Popescu - ROMANIA

Session C2. COMPUTER NETWORKS AND DISTRIBUTED SYSTEMS

Session Chairs: Mihai MOCANU, Razvan RUGHINIS - ROMANIA

Thursday May 26, 2005, 9.30 – 11.15, Room C2

- C2.1** Designing and Implementating an IP Telephony Architecture Over a Heterogenous Infrastructure
Razvan Runghinis, Ioan Herisanu - ROMANIA
- C2.2** Software Architecture Used to Develop Mobile Context and Location Aware Applications
Mihai Cristian Enescu, Ruxandra Jitianu – ROMANIA
- C2.3** Capturing the TCP/IP Traffic in an Ethernet LAN
Mihai Mocanu, Mihai Dorobantu - USA, Sorin Capra – ROMANIA
- C2.4** Design of a Remote Control Casching Proxy Administration System: Algorithm and Implementation
Khaled Negm, Mariam Al-Aly -- UAE
- C2.5** Processor-Based Periodic Testing and Repair in Distributed Systems Using Software Agents
Liviu Miclea, Enyedi Szilard, Gavril Todorean – ROMANIA, Dimitris Gizopoulos, Yiorgos Xenoulis – GREECE
- C2.6** Descriptive Dynamic Rewriting GSPN-Based Performance Modeling of Computer Systems
Emilian Gutuleac - R. MOLDOVA, Mihai Mocanu – ROMANIA
- C2.7** A Method Taking Fast and Accurate Geo* Snapshots of Large P2P Networks
A.Iosup – ROMANIA, P. Garbacki, J.A. Pouwelse, D.H.J. Epema - THE NETHERLANDS

Session C1. ARTIFICIAL INTELLIGENCE AND EXPERT SYSTEMS (II)

Session Chairs: Cristian GIUMALE, Adina FLOREA - ROMANIA

Thursday, May 26, 2005, 11:30 – 13.00, Room C1

- C1.9** The Redundance of Messages in the Nogood Learning Techniques Case
Muscalagiu Ionel, Manuela Panoiu, Osaci Mihaela – ROMANIA
- C1.10** Agent World in Economic Learning
Amine Soueidy – LEBANON
- C1.11** Character Recognition Using Neural Networks
Eugen Ganea, Marius Brezovan, Simona Ganea – ROMANIA
- C1.12** Conceptual Architecture and Sample Implementation of a Multi-Agent e-Commerce System
Amalia Parvanescu, Costin Badica - ROMANIA, Maria Ganzha, Marcin Paprzycki – USA
- C1.13** Reinforcement Learning with Logical Models: A Distance Based Approach
Mircea Preda, Dan Popescu – ROMANIA
- C1.14** A Comparative Study on Two Hybrid Metaheuristics
Liviu Beldiman, Viorel Minzu – ROMANIA

Session C3. SECURITY

Session Chairs: Nicolae TAPUS, Valentin SGARCIU - ROMANIA

Thursday May 26, 2005, 11.30 – 13.00, Room C2

- C3.1** One Time Passwords for Uncertain Number of Authentications
Bogdan Groza, Dorina Petrica – ROMANIA
- C3.2** New Data Coding Approach Using Quantum Cryptography
Madalin Stefan Vlad, Valentin Sgarciu – ROMANIA
- C3.3** Assessment of Thor - Optical Fingerprinting to Protect Data
Adrian Vintu, Dacian Grapini – ROMANIA
- C3.4** Secure Messaging System
Victoria Jordan – ROMANIA
- C3.5** Design, Implementation and Testing of Mobile Agent Protection Mechanism for Manets
Khaled E.A. Negm – UAE
- C3.6** A Case Study of the Pki-Tsp Based on a Practical Implementation
Marinescu Cristian, Nicolae Tapus - ROMANIA, Gianluca Ramunno - ITALY
- C3.7** Secure Encryption for Confidential Information
Andrei Hagiescu, Tiberius Pircalabu, Nicolae Tapus – ROMANIA
- C3.8** Trace Back Flows Methods for Tracking DoS Attacks
Victor-Valeriu Patriciu, Iustin Priescu, Sebastian Nicolaescu – ROMANIA

Session C4. NEW TRENDS IN COMPILERS

Session Chairs: Irina ATHANASIU, Virgil PALANCIUC - ROMANIA

Thursday May 26, 2005, 14.30 – 16.15, Room C1

- C4.1** Model Checking of Small Code Components
Bogdan Panghe, Irina Athanasiu – ROMANIA
- C4.2** If-Conversion Controlled by Instruction Scheduling
Bogdan Ditu – ROMANIA
- C4.3** An Informed Factorization Framework
Dragos Badea – ROMANIA
- C4.4** An Evaluation of Current State-Of-Art Register Allocation Algorithms
Virgil Palanciuc – ROMANIA

- C4.5 Reconfigurable High-Level/Low-Level Feedback
Simona-Sorina Costinescu, Anca-Gabriela Zane – ROMANIA
- C4.6 Architecture Specification Issues in the Context of Reconfigurable Compilers
Raluca Vranita – ROMANIA
- C4.7 Data Structure Verification
Raluca Sauciu, Irina Athanasiu – ROMANIA

Session C5. COMPUTER ARCHITECTURES

Session Chairs: Adrian PETRESCU, Ion BUCUR – ROMANIA

Thursday May 26, 2005, 16.30 – 18.15, Room C2

- C5.1 Three Implementations of the General Smith-Waterman Algorithm: a Comparative Study
Octavian Cret, Zsolt Mathe, Balint Szente, Stefan Mathe, Lucia Vacariu, Adrian Darabant – ROMANIA
- C5.2 An Interactive Approach to Support Vector Machines
Paul Bogdan – ROMANIA
- C5.3 Constructing Checkers from PSL Properties
Stefan Valentin Gheorghita - THE NETHERLANDS, Radu Grigore – ROMANIA
- C5.4 Undetectable Bridging Faults in Combinational Circuits
Ion Bucur – ROMANIA
- C5.5 Partitioning Combinational Circuits
Ion Bucur – ROMANIA
- C5.6 Mapping Techniques Targeting Minimum Delay for k-LUT Based FPGA Evaluation
Ion Bucur – ROMANIA
- C5.7 Strategies in Functional Verification Based On SAT and BDDs
Ion Bucur, Daniel Avieritei – ROMANIA
- C5.8 A Variable Single-Cycle Instruction Data Path Simple MIPS Processor
Jacob Petrescu, Adrian Petrescu – ROMANIA

Session C6. INVITED SESSION: GRID COMPUTING

Session Chairs: Nicolae TAPUS, Valentin CRISTEA – ROMANIA

Friday, May 27, 2005, 8.30 – 10.30, Room C1

- C6.1 Aspects of Grids Over Mobile Phone Network
Bogdan Ioan Fartatescu – ROMANIA
- C6.2 A Simulation Study for T0/T1 Data Replication and Production Activities
Iosif Legrand - USA, Ciprian Mihai Dobre, Ramiro Voicu, Corina Stratan, Catalin Cirstoiu, Lucian Musat – ROMANIA
- C6.3 Distributed Agents for Global Optimization and Control in MonALISA Framework
Iosif Legrand - USA, Mihaela Toarta, Ramiro Voicu, Costin Grigoras, Adrian Muraru, Corina Stratan – ROMANIA
- C6.4 LISA (Local Host Information Service Agent)
Iosif Legrand - USA, Ciprian Mihai Dobre, Ramiro Voicu, Corina Stratan, Catalin Cirstoiu, Lucian Musat – ROMANIA
- C6.5 Real-Time Job Monitoring in GRID Environments Using MonALISA and ApMon
Iosif Legrand - USA, Corina Stratan, Catalin Cirstoiu, Mihaela Toarta, Costin Grigoras, Adrian Muraru – ROMANIA
- C6.6 Information Gathering and Management in MonALISA Framework

Costin Grigoras, Adrian Muraru, Lucian Musat, Mihaela Toarta, Ramiro Voicu – ROMANIA, Iosif Legrand – USA

Session C7. DATABASES AND APPLICATIONS (I)

Session Chairs: Mircea PETRESCU, Florin RADULESCU -ROMANIA

Friday, May 27, 2005, 8.30 – 10.30, Room C2

- C7.1** Transposed Relation Implementation: Past, Present and Future
M. Petrescu, F. Radulescu – ROMANIA
- C7.2** A New Method for Content-Based Region Query
Dumitru Dan Burdescu, Liana Stanescu, Anca Ion – ROMANIA
- C7.3** Software System for Content-Based Region Query with Relative Localization
Liana Stanescu, Dumitru Dan Burdescu, Mihai Suiu - ROMANIA
- C7.4** FP-Growth Algorithm for Multi-Level Databases
Robert Gyorodi, Cornelia Gyorodi, Mirela Pater, Ovidiu Boc, Zoltan David – ROMANIA
- C7.5** Multi-Level Apriori Algorithms
Mirela Pater, Robert Gyorodi, Cornelia Gyorodi, Ovidiu Boc, Zoltan David – ROMANIA
- C7.6** Security Enforcement of Query Optimizers
Lorina Negreanu, Cristian Giumale – ROMANIA

Session C7. DATABASES AND APPLICATIONS (II)

Session Chairs: Mircea PETRESCU, Florin RADULESCU -ROMANIA

Friday, May 27, 2005, 11.00 – 13.00, Room C2

- C7.7** Cryptography at the Relational Database Management System Level
Dan Gheorghe – ROMANIA
- C7.8** Using Web Services in Web Information Retrieval
Mihai Mocanu, Mihai Dorobantu – ROMANIA
- C7.9** Handling Network Timeouts in Case of Java Remote Method Invocation
Mihai Balan - DENMARK, Ionel Muscalagiu – ROMANIA
- C7.10** Web Services – A Case Study
Madalina Nedelea, Daniela Saru, Stefan Mocanu - ROMANIA
- C7.11** Re-Design of the IT&C System after a Business-Merge
Mariana Mocanu – ROMANIA
- C7.12** Mass Optimization of a Mechanical Structure Using Finite Element Analysis
E. Maican, F. Radulescu – ROMANIA

Session C8. E-LEARNING

Session Chairs: Valentin CRISTEA, Nicolae TAPUS - ROMANIA

Friday, May 27, 2005, 11.00 – 13.00, Room C1

- C8.1** Patterns for E-learning
Valentin Cristea – ROMANIA
- C8.2** Software Assistant for Students with Learning Disabilities
Sergiu Dascalu, Maryann Chandy, Frederick Harris - USA, Daniela Saru - ROMANIA

- C8.3 Authoring Environment System for Creating Teaching Files from PACS
A. Delistamatis, G. Delovski, M. Mantatzis - GREECE, N. Tapus - ROMANIA
- C8.4 Towards an Ontology Based Approach for E-learning
Dan Garlasu - ROMANIA
- C8.5 Unismart - A Solution for e-Learning Content Management
Cristina Niculescu - ROMANIA

Session C9. GRAPHICS AND IMAGE PROCESSING

Session Chairs: Florica MOLDOVEANU, Carmen ODUBASTEANU - ROMANIA

Friday, May 27, 2005, 14.00 – 16.00, Room C1

- C9.1 Reconstruction on Three-Dimensional Objects from Parallel Planar Sections - Vertical Planes Algorithm for the Tiling Problem
Catalin Tudose, Tudor Metea, Carmen Odubasteanu - ROMANIA
- C9.2 Fully Automatic, Real-Time Head-Pose Estimation Using Stereo Vision
Ciprian Cudalbu, Bogdan Anastasiu, Horia Grecu - ROMANIA, Erhardt Barth - GERMANY
- C9.3 Multimodal Biometric Systems
Catalin Lupu, Valeriu Lupu - ROMANIA

Second Symposium on “Interdisciplinary Approaches in Fractal Analysis”

Session F1. COMPLEXITY, SIMILITUDE AND POWER LAWS

Session Chairs: Dan IORDACHE, Mihai CEAPARU - ROMANIA

Thursday, May 26, 2005, 9.30 – 11.15, Room A3

- F1.1 Power Scaling Laws for Electrical Engineering and Applied Mechanics Materials
Dan Iordache, Viorica Iordache - ROMANIA
- F1.2 Complexity, Similitude and Fractals in Physics
Dan Iordache, Ștefan Pușcă, Viorica Iordache - ROMANIA, P.P. Delsanto - ITALIA
- F1.3 Fractal Analysis of Video Traffic on Wireless Networks
Matei Dobrescu, Stefan Mocanu - ROMANIA
- F1.4 Self-Similarity in Wireless Networks
Roland Ulrich, Michael Rothenberg - ROMANIA
- F1.5 An Iterative Approach to Support Vector Machines
Paul Bogdan - ROMANIA
- F1.6 A Distributed Diagnosis Method for Computer Networks
Mihai Ceaparu, Valentin Sgarciu - ROMANIA
- F1.7 Fuzzy Rule Base Complexity Reduction: a Survey
Daniela Andone - ROMANIA

Session F2. FRACTALS AND CHAOS IN EVOLUTIONARY PROCESSES

Session Chairs: Paul FLONDOR, Catalin VASILESCU - ROMANIA

Thursday, May 26, 2005, 11.30 – 13.00, Room A3

- F2.1 Some Aspects Concerning the Simulation of a Sepsis Treatment
Virginia Ecaterina Oltean - ROMANIA
- F2.2 The Dynamics of the Inflammatory Processes

Paul Flondor, Catalin Vasilescu – ROMANIA

- F2.3** Dynamical Behavior of Systems Modelling Sepsis
Cristina Bercia - ROMANIA
- F2.4** A Model for the Molecular Interactivity in Sepsis Based on Scale-Free Networks
Ciprian Ivan, Radu Dobrescu, Catalin Vasilescu - ROMANIA
- F2.5** Various Modeling Types for Sepsis Dynamics Simulation
Sabin Stoicescu - ROMANIA
- F2.6** Patient Evolution Prediction with Variables Constructed from Temporal Sequences
Radu Dobrescu, Calin Soare – ROMANIA

Session F3. FRACTALS AND CHAOS IN IMAGE AND DATA PROCESSING

Session Chairs: Dan POPESCU, Valentin SGARCIU - ROMANIA

Thursday, May 26, 2005, 14:30 – 16.15, Room A3

- F3.1** Association of Fractal Dimension to Textural Features of Images
Nicoleta Angelescu, Daniela Alexandra Crişan - ROMANIA
- F3.2** Nonlinear Analysis of Medical Images
Rodica Dragomir, Mircea Olteanu, Mihai Tanase – ROMANIA, Frank Doidy - FRANTA
- F3.3** Comparing Methods for Image Texture Analysis: A Survey
Nicoleta Angelescu, Daniela Alexandra Crişan, Radu Dobrescu, Dan Popescu - ROMANIA
- F3.4** Improving RS and GIS Image Analysis by Using Fractal Techniques
Victor Vasilescu, Bogdan Droasca - ROMANIA
- F3.5** Wavelet Investigation in Electroretinogram
Dorina Creanga- ROMANIA
- F3.6** Decryption Techniques Based on Artificial Intelligence and Chaos Theory
Catalin Cosoi, Madalin Vlad, Valentin Sgarciu – ROMANIA
- F3.7** Fractal Analysis of Galaxies Clustering
Sanziana Paduroiu, Mircea Rusu – ROMANIA

Session F4. FRACTALS AND CHAOS IN CHEMISTRY AND BIOLOGY

Session Chairs: Mircea RUSU, Eugen GHEORGHIU - ROMANIA

Thursday May 26, 2005, 16.30 – 18.15, Room A3

- F4.1** SEM Investigations for Fractal Dimension Computation of Nanotubes
Gianina Dobrescu, Valentina Lazarescu, Mircea Rusu - ROMANIA, Christine Taeschner, Lothar Dunsch – GERMANIA
- F4.2** Fractal Analysis of Micrographs and Absorption Isotherms of Perovskites
Gianina Dobrescu, Dana Berger, Florica Papa, Iudit Fangli, N.I.Ionescu, Mircea Rusu - ROMANIA
- F4.3** Surface Reconstruction on a Larger Scale of Cu(110) in Dilute Hydrochloric Acid: a Dynamic Scaling Approach
Gianina Dobrescu, M.Anastasescu, N.I.Ionescu, M.Rusu - ROMANIA
- F4.4** Fractal Analysis: an Objective Method for Characterization of Subcellular Structures
Loretta Ichim, Coralia Bleotu - ROMANIA
- F4.5** Non-linear Aspects in Kidney Physiology
Dorina Creanga - ROMANIA
- F4.6** Assessment of Cell Cycle by Chaos Theory
Eugen Gheorghiu – ROMANIA
- F4.7** Structural and Functional Variability in PR Gene of HIV 1 Clade F
Paul Cristea – ROMANIA

GENERAL INFORMATION

LOCATION

CSCS15 will be held at the Faculty of Automatic Control, "POLITEHNICA" University of Bucharest, Spl. Independentei nr.313, Bucharest, Romania. The formal Opening Ceremony will be organized in the EC105 room, Faculty of Automatic Control and Computers.

ACCESS TO CONFERENCE SITE

The Conference site can be accessed by the following means of transportation:

By underground - The Conference site is at 5 minutes walk from
POLITEHNICA underground station

By bus - Nos. 136, 236, 336 (UPB Stop)

By trolley bus - Nos. 61, 62 (UPB Stop)

CAR PARKING

There are free and ample parking facilities in the immediate vicinity of the Conference site.

MAIL

Correspondence in connection to the CSCS15 Conference should be addressed as it follows:

CSCS15 - SRAIT

"POLITEHNICA" University of Bucharest

Faculty of Control and Computers

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ROMANIA

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CONFERENCE LITERATURE

The text of the contributions included in the final programme will be published after the Conference and distributed to all registered participants who have paid the registration fee and presented their papers.

WORKING LANGUAGE

The working language of CSCS15 is English and will be used for presentations and discussions.

NAME BADGE

An admission badge bearing the participant's name will be issued to all registered participants, thus authorizing access to all Conference sessions.

GET ACQUAINTED COCKTAIL PARTY

A Get Acquainted Cocktail Party will be held on Thursday 26th May 2005 from 19:30 hours at Casa Oamenilor de Stiinta Restaurant. The cost of attendance is covered by the registration fee.

REFRESHMENTS

Refreshments will be available at the Conference site daily.

LUNCHES

Self-lunches will be available in the Leu Complex. The price for a lunch varies between 3 Euros and 5 Euros.

DINNER

Dinner will be served Friday night at 20:00 hrs. The price of a dinner will be around 15 Euros.

REGISTRATION AND INFORMATION DESK

The CSCS15 Registration Desk will be open at the Conference site, Faculty of Automatic Control and Computers starting from 25th May 2005, 14:00 hrs.

REGISTRATION FEE

Registration fee is 250 Euro and includes participation, volumes, coffee breaks and cocktail. The fee for foreign students is 50 Euro. For Romanian participants and SRAIT members the fee will be 700.000 ROL and 350.000 ROL, respectively. Student members of SRAIT will pay 100.000 ROL.

CLIMATE

The weather in Bucharest is warm in May. Temperatures between 20°C to 30°C are to be expected.

INSURANCE

The organizers cannot be held liable for accidents to participants or for damage to, or loss their personal property, howsoever caused. Participants are advised to make their own insurance arrangements.