

**The 10th International Conference on  
Development and Application Systems  
DAS 2010**

**May 27-29, 2010  
Suceava - Romania**

**[www.dasconference.ro](http://www.dasconference.ro)**

# **Conference Program**

**Organized by**

**Stefan cel Mare University of Suceava  
Faculty of Electrical Engineering  
and Computer Science**



The 10th International Conference on **Development and Application Systems**, organized by the *Faculty of Electrical Engineering and Computer Science, Stefan cel Mare University of Suceava*, has four sections:

- A - Systems, Processes Control and Automations**
- B - Communications and Computer Networks**
- C - Electronics and Computer Aided Engineering**
- D - Software Engineering and Information Technologies**

The scope of the Conference is to bring together specialists from universities, research institutes and companies for useful ideas exchanges regarding concerns in their domains. The latest progresses in these fields as well as the newest scientific and technical results will be presented and discussed during the Conference.

Participant registration will take place in Building D, first Floor, on May 26 between 8 AM and 8 PM and on May 27, between 8 AM and 9 AM.

#### CONTACT INFORMATION

Phone:	+ (40)-230-520-277
Phone:	+ (40)-230-522-978 ext. 124, 220
Phone:	+ (40)-230-216-147 ext. 124, 220
Fax:	+ (40)-230-524-801
Web:	<a href="http://www.dasconference.ro">www.dasconference.ro</a>
E-mail:	<a href="mailto:das@eed.usv.ro">das@eed.usv.ro</a>

**Thursday - May 27, 2010**

*Aula, Building E*

**09:00 - 09:30 Opening Session**

*Welcome message addressed by*

**Adrian GRAUR**

DAS 2010 Chair

Rector of Stefan cel Mare University of Suceava

**09:30 - 10:20 Plenary Session**

**Keynote Address**

*Core Sensor Integration Technologies for Advanced  
Electrical Drives and Power Converters*

**Robert D. LORENZ**

IEEE Fellow

Department of Mechanical Engineering

University of Wisconsin-Madison

USA

**10:30 - 11:00 Coffee break**

**11:00 - 11:50 Plenary Session**

**Keynote Address**

*Power-Electronic Issues of Modern Railway Systems*

**Andreas STEIMEL**

IEEE Senior Member

Department of Electrical Engineering and

Information Sciences

Ruhr University Bochum

GERMANY

**Friday - May 28, 2010**

*Aula, Building E*

**09:00 - 09:40 Plenary Session**

**Keynote Address**

*New Advances and Possibilities in Active Circuit  
Design*

**Hakan KUNTMAN**

Faculty of Electrical and Electronics Engineering  
Istanbul Technical University  
TURKEY

**09:40 - 10:20 Plenary Session**

**Keynote Address**

*Taking customers into new worlds: interaction,  
images*

**Christophe CHAILLOU**

Fundamental Informatics Laboratory  
University of Lille 1  
FRANCE

**10:30 - 11:00 Coffee break**

**Thursday - May 27, 2010**

*Dimitrie Leonida Lecture Theatre, Building D*

## **Section A**

### **Systems, Processes Control and Automations**

#### *Session Co-Chairs*

**Sergey RYVKIN**

*Trapeznikov Institute of Control Sciences of Russian  
Academy of Sciences, Russia*

**Cornel TURCU**

*Stefan cel Mare University of Suceava, Romania*

**Vasile GĂITAN**

*Stefan cel Mare University of Suceava, Romania*

#### **12:30 - 13:30 Section A - Day 1 - Session 1**

12:30 - 12:45 - Paper ID: 114

*A Short Survey on Applications of Rough Sets Theory in Power  
Engineering*

Ioana PISICĂ, Petru POSTOLACHE

*Politehnica University of Bucharest, Romania*

12:45 - 13:00 - Paper ID: 116

*Middleware Based Model of Heterogeneous Systems for SCADA  
Distributed Applications*

Nicoleta-Cristina GĂITAN, Vasile Gheorghită GĂITAN, Ștefan  
Gheorghe PENTIUC, Ioan UNGUREAN, Eugen DODIU

*Stefan cel Mare University of Suceava, Romania*

13:00 - 13:15 - Paper ID: 33

*Option to provide the necessary feedback for Closed-Loop  
neuroStimulation*

Radu BAZAVAN, Rodica STRUNGARU

*Gh. Asachi Technical University of Suceava, Romania*

13:15 - 13:30 - Paper ID: 35

*Obstacle Avoidance Fuzzy System for Mobile Robot with IR  
Sensors*

C. G. RUSU, I. T. BIROU

*Technical University of Cluj-Napoca, Romania*

**13:30 - 15:00 Lunch**

**15:00 - 17:00 Section A - Day 1 - Session 2**

15:00 - 15:15 - Paper ID: 37

*Hazardous events monitoring system in a hospital*

Radu ȚIGĂNESCU-AMARIȚII

*Stefan cel Mare University of Suceava, Romania*

15:15 - 15:30 - Paper ID: 40

*Real-time Communications for Distributed Control Systems*

Dan PUIU, Florin MOLDOVEANU, Caius SULIMAN

*Transilvania University of Brasov, Romania*

15:30 - 15:45 - Paper ID: 41

*Design and Comparison of Different Switched Reluctance  
Machines Topologies for Automotive Applications*

Claudia MARTIS<sup>1</sup>, Vlad PETRUS<sup>1</sup>, Adrian-Cornel POP<sup>1</sup>, Johan  
GYSELINCK<sup>2</sup>

<sup>1</sup>Technical University of Cluj-Napoca, Romania

<sup>2</sup>Université Libre de Bruxelles, Belgium

15:45 - 16:00 - Paper ID: 42

*The VSB-01 portable system for monitoring environmental  
conditions*

Alexandru SUCIU, Vasile BUZDUGA, Gabriela VIZITIU

*Stefan cel Mare University of Suceava, Romania*

16:00 - 16:15 - Paper ID: 46

*Computer Program for Studying the Operation of Gas Turbine  
Plants*

Pavel ATĂNĂSOAE, Gicu OICĂ

*Combined Heat and Power Plant of Suceava, Romania*

16:15 - 16:30 - Paper ID: 47

*Kalman Filter Based Tracking in an Video Surveillance System*

Caius SULIMAN, Cristina CRUCERU, Florin MOLDOVEANU

*Transilvania University of Brasov, Romania*

16:30 - 16:45 - Paper ID: 51

*A fuzzy approach regarding the optimization of statistical  
process control through Shewhart control charts*

Alexandru-Mihnea SPIRIDONICĂ, Marius PISLARU, Romeo-  
Cristian CIOBANU

*Gh. Asachi Technical University of Iasi, Romania*

16:45 - 17:00 - Paper ID: 58

*The use of fuzzy modeling regarding the assurance of  
environmental protection*

Alexandru-Mihnea SPIRIDONICA, Marius PISLARU

*Gh. Asachi Technical University of Iasi, Romania*



Friday - May 28, 2010

*Dimitrie Leonida Lecture Theatre, Building D*

## Section A

### Systems, Processes Control and Automations

*Session Co-Chairs*

**Sergey RYVKIN**

*Trapeznikov Institute of Control Sciences of Russian  
Academy of Sciences, Russia*

**Cornel TURCU**

*Stefan cel Mare University of Suceava, Romania*

**Vasile GĂITAN**

*Stefan cel Mare University of Suceava, Romania*

**11:00 - 13:30 Section A - Day 2 - Session 1**

11:00 - 11:15 - Paper ID: 57

*Multiagent System for Robotic Vision System*

Dan FLOROIAN, Florin MOLDOVEANU, Mihai CERNAT

*Transilvania University of Brasov, Romania*

11:15 - 11:30 - Paper ID: 63

*Experience-based design and simulations of a fuzzy control  
system for cardiovascular variables*

Cristian BOLDIȘOR Vasile COMNAC, Iulian ȚOPA

*Transilvania University of Brasov, Romania*

11:30 - 11:45 - Paper ID: 64

*A methodology of power demand prediction*

Corina MARTINEAC<sup>1</sup>, Oana ONET<sup>1</sup>, Simona ARDELEAN<sup>1</sup>,  
Claudiu VERMEȘAN<sup>2</sup>, Mihai HOPÎRTEAN<sup>3</sup>, Tudor VESA<sup>1</sup>

<sup>1</sup>*Technical University of Cluj-Napoca*

<sup>2</sup>*FDEE Electrica Distribuție Transilvania Nord, Romania*

<sup>3</sup>*Utrecht University, The Netherlands*

11:45 - 12:00 - Paper ID: 73

*μC OS-II real time kernel port for Cirrus Logic EP93xx platform*

Eugen DODIU, Adrian GRAUR, Cristina N. GAITAN, Vasile G.

GAITAN, Adrian M. GAITAN

*Stefan cel Mare University of Suceava, Romania*

12:00 - 12:15 - Paper ID: 77

*Analytic method for determination of the amplitude-phase  
transmission errors between selsyns*

Gabriel GHIDUS, Alecsandru SIMION, Leonard LIVADARU, Sorin

MIHAI

*Gh. Asachi Technical University of Iasi, Romania*

12:15 - 12:30 - Paper ID: 81

*Thunderstorms as Interactive Component of Global  
Ecodynamics*

V.F. KRAPIVIN<sup>1</sup>, C. NITU<sup>2</sup>, V.Yu. SOLDATOV<sup>1</sup>

<sup>1</sup>*V.A. Kotelnikov Institute of Radioengineering and Electronics,  
Russian Academy of Sciences, Russia*

<sup>2</sup>*Politehnica University of Bucharest, Romania*

12:30 - 12:45 - Paper ID: 84

*Analysis and simulation of unbalanced systems*

Virgil MAIER, Antoniu TURCU, Sorin PAVEL, Iulian BIROU

*Technical University of Cluj-Napoca*

12:45 - 13:00 - Paper ID: 90

*Hybrid Electric Vehicle Experimental Model with CAN Network  
Real Time Control*

Gheorghe LIVINȚ, Vasile HORGA, Daniel STICEA, Marcel RĂȚOI,

Mihai ALBU

*Gh. Asachi Technical University of Iasi, Romania*

13:00 - 13:15 - Paper ID: 92

*The Iterative Algorithm of Tuning Controllers to the Model  
Object with Advance Delay and Inertia Second Order*

Bartolomeu IZVOREANU

*Technical University of Moldova, Republic of Moldova*

13:15 - 13:30 - Paper ID: 93

*Tuning Controllers in the Multiple-Loop Feedback Control  
System to the Objects with Inertia, Time Delay and Non Minimal  
Phase*

Irina COJUHARI

*Technical University of Moldova, Republic of Moldova*

**13:30 - 15:00 Lunch**

**15:00 - 15:30 Section A - Day 2 - Session 2**

15:00 - 15:15 - Paper ID: 104

*Fuzzy model for sustainability assurance related to  
environmental protection*

Marius PISLARU, Alexandru TRANDABAT, Cristina SCHREINER,  
Alexandru SPIRIDONICA

*Gh. Asachi Technical University of Iasi, Romania*

15:15 - 15:30 - Paper ID: 113

*Mechanical-electrical Optoisolator Transducer with current-to-  
frequency conversion*

Ioan Marcel CIURUȘ, Mihai DIMIAN, Adrian GRAUR

*Stefan cel Mare University of Suceava*

**Thursday - May 27, 2010**

*Nicolae Boțan Lecture Theatre, Building D*

## **Section B**

### **Communications and Computer Networks**

*Session Co-Chairs*

**Lieven De STRYCKER**

*Katholieke Hogeschool Sint-Lieven, Gent, Belgium*

**Nicolae Dumitru ALEXANDRU**

*Gh. Asachi Technical University of Iasi, Romania*

**Alin Dan POTORAC**

*Stefan cel Mare University of Suceava, Romania*

**12:30 - 13:00 Invited Speaker**

#### **Invited Address**

*Improved Pulses Generated By Piece-wise Parabolic  
Nyquist Filters*

**Nicolae Dumitru ALEXANDRU**

*Gh. Asachi Technical University of Iasi*

**ROMANIA**

**13:00 - 13:30 Section B - Day 1 - Session 1**

13:00 - 13:15 - Paper ID: 10

*Time of Arrival Based on Chirp Pulses as a means to Perform  
Localization in IEEE 802.15.4a Wireless Sensor Networks*

Anneleen VAN NIEUWENHUYSE, Jeroen WYFFELS,

Jean-Pierre GOEMAERE, Lieven DE STRYCKER

*Katholieke Hogeschool Sint-Lieven, Gent, Belgium*

13:15 - 13:30 - Paper ID: 102

*Data Communications in an HPC Hybrid Cluster and  
Performance Evaluation*

Ovidiu GHERMAN, Ioan UNGUREAN, Ștefan Gheorghe  
PENTIUC, Oana VULTUR

*Stefan cel Mare University of Suceava, Romania*

**13:30 - 15:00 Lunch**

**15:00 - 17:00 Section B - Day 1 - Session 2**

15:00 - 15:15 - Paper ID: 69

*The impacts of temperature on PMD and CD dispersions during  
high speed optical communications*

Stojanović NIKOLA, Miodrag JELIĆ, Miloš SLANKAMENAC, Miloš  
ŽIVANOV

*University of Novi Sad, Faculty of Technical Sciences, Serbia*

15:15 - 15:30 - Paper ID: 124

*Eigenvalue Characterization of the Sum Capacity of Multi-User  
MIMO Multiple Access Channels*

Paul COTAE

*University of the District of Columbia, USA*

15:30 - 15:45 - Paper ID: 28

*Spectral Analysis of Three Miller-like Codes*

Nicolae Dumitru ALEXANDRU

*Gh. Asachi Technical University of Iasi, Romania*

15:45 - 16:00 - Paper ID: 66

*An Optimization of Gaussian UWB Pulses*

Adrian POPA

*Gh. Asachi Technical University of Iasi, Romania*

16:00 - 16:15 - Paper ID: 24

*A New Family of CSK Signals*

Nicolae Dumitru ALEXANDRU

*Gh. Asachi Technical University of Iasi, Romania*

16:15 - 16:30 - Paper ID: 117

*LTE eNodeB Demonstrator with Real and Simulated Interfaces*

Titus-Constantin BĂLAN<sup>1</sup>, Florin SANDU<sup>2</sup>, Szilard CSEREY<sup>1</sup>,  
Virgil CAZACU<sup>3</sup>

<sup>1</sup> *SIEMENS Program and System Engineering, Braşov, Romania*

<sup>2</sup> *Transilvania University of Brasov, Romania*

<sup>3</sup> *Bit Defender, Bucureşti, Romania*

16:30 - 16:45 - Paper ID: 118

*Simulation of LTE Signaling*

Florin SANDU<sup>1</sup>, Szilárd CSEREY<sup>2</sup>, Eugen MILE-CIOBANU<sup>2</sup>

<sup>1</sup> *Transilvania University of Brasov, Romania*

<sup>2</sup> *SIEMENS Program and System Engineering, Braşov, Romania*

16:45 - 17:00 - Paper ID: 119

*BPEL Implementation of QoS-based Management in Multi-  
modal Mobile Communications*

Florin SANDU<sup>1</sup>, Dan Nicolae ROBU<sup>2</sup>, Cosmin COSTACHE<sup>2</sup>

<sup>1</sup> *Transilvania University of Brasov, Romania*

<sup>2</sup> *SIEMENS Program and System Engineering, Braşov, Romania*

**Friday - May 28, 2010**

*Dimitrie Leonida Lecture Theatre, Building D*

## **Section B**

### **Communications and Computer Networks**

#### *Session Co-Chairs*

**Lieven De STRYCKER**

*Katholieke Hogeschool Sint-Lieven, Gent, Belgium*

**Nicolae Dumitru ALEXANDRU**

*Gh. Asachi Technical University of Iasi, Romania*

**Alin Dan POTORAC**

*Stefan cel Mare University of Suceava, Romania*

**11:00 - 12:15 Section B - Day 2 - Session 1**

11:00 - 11:15 - Paper ID: 79

*New High Performance Deterministic Interleavers for Turbo Codes*

Georgian Alexandru LAZAR, Nicoleta Roxana BUZATU, Elena COJOCARIU, Lucian TRIFINA, Razvan VIERU

*Gh. Asachi Technical University of Iasi, Romania*

11:15 - 11:30 - Paper ID: 25

*Some Useful Properties of STBC codes for Residential Applications*

Angela DARIE, Mihai GHENGHEA, Ion BOGDAN

*Gh. Asachi Technical University of Iasi, Romania*

11:30 - 11:45 - Paper ID: 45

*A New Evolutionary Approach for Base Station Transmitter Placement*

Shahriar MAHBUB, Nusrat SHARMIN

*Lucian Blaga University of Sibiu*

11:45 - 12:00 - Paper ID: 123

*Some Mathematical Fundamentals for a Spacecraft Explorer Communication*

Dimitris C. VOUKALIS

*Technical University of Piraeus, Greece*

12:00 - 12:15 - Paper ID: 100

*A Comparative Approach on WiMax and LTE Technologies*

Mihai-Florentin URSULEANU, Daniel SIMION, Adrian GRAUR,  
Alin Dan POTORAC

*Stefan cel Mare University of Suceava, Romania*



**Thursday - May 27, 2010**

*Remus Răduleț Lecture Theatre, Building D*

## **Section C**

### **Electronics and Computer Aided Engineering**

#### *Session Co-Chairs*

**Milos ZIVANOV**

*University of Novi Sad, Serbia*

**Eugen COCA**

*Stefan cel Mare University of Suceava, Romania*

**Mihai RATA**

*Stefan cel Mare University of Suceava, Romania*

**12:30 - 13:00 Invited Speaker**

#### **Invited Address**

*Magnetization Dynamics for Nonvolatile Memory  
Technologies*

**Leonard SPINU**

AMRI & Department of Physics

University of New Orleans, New Orleans

USA

**13:00 - 13:30 Section C - Day 1 - Session 1**

13:00 - 13:15 - Paper ID: 7

*Assigning Connection Sources in Large-Scale Circuits Multilevel  
Decomposition*

Olivian STĂNICĂ

*Politehnica University of Bucharest, Romania*

13:15 - 13:30 - Paper ID: 11

*The modeling of the heating resistors in transient regime*

Mitica Iustinian NEACA, Andreea Maria NEACA

*University of Craiova, Romania*

**13:30 - 15:00 Lunch**

**15:00 - 17:00 Section C - Day 1 - Session 2**

15:00 - 15:15 - Paper ID: 122

*Magnetic Properties of Two-Dimensional (2D) Heisenberg  
Lattices as Good Candidates for Spintronic Junctions*

Jacques CURÉLY

*University of Bordeaux 1, France*

15:15 - 15:30 - Paper ID: 12

*Electronic Devices for Determining the Working Length in Root  
Canal Therapy*

Anca POPESCU

*Politehnica University of Bucharest, Romania*

15:30 - 15:45 - Paper ID: 121

*Embedded System for Start-of-ICE with Hybrid Battery-  
Supercapacitor Sources*

Aurel Cornel STANCA<sup>1</sup>, Venetia SANDU<sup>1</sup>, Iuliu SZEKELY<sup>2</sup>

<sup>1</sup> *Transilvania University of Braşov, Romania*

<sup>2</sup> *Sapientia University of Târgu- Mureş, Romania*

15:45 - 16:00 - Paper ID: 19

*A study in binary relations for logic algebra functions*

Ion COJOCARU, Andrei VASILĂŢEANU, Octavian IONEL

*Politehnica University of Bucharest, Romania*

16:00 - 16:15 - Paper ID: 20

*Study of binary relations of Boolean algebra functions*

Ion COJOCARU, Octavian IONEL

*Politehnica University of Bucharest, Romania*

16:15 - 16:30 - Paper ID: 29

*Sensitivity and Tolerance Analysis in Analog Circuits Using  
Symbolic Methods*

Lucian MANDACHE<sup>1</sup>, Mihai IORDACHE<sup>2</sup>, Lucia DUMITRIU<sup>2</sup>

<sup>1</sup> *University of Craiova, Romania*

<sup>2</sup> *Politehnica University of Bucharest, Romania*

16:30 - 16:45 - Paper ID: 112

*Audio Source Localization, using a Network of Embedded  
Devices*

Laurențiu FRANGU, Marius MĂZĂREL, Claudiu CHICULIȚĂ  
*Dunărea de Jos University of Galați*

16:45 - 17:00 - Paper ID: 120

*Modeling of Ferrite Common Mode Chokes for EMI Suppression  
in LTCC Technology*

Mirjana DAMNJANOVIĆ, Ljiljana ŽIVANOV, Miloš ŽIVANOV  
*University of Novi Sad, Serbia*

**Friday - May 28, 2010**

*Remus Răduleț Lecture Theatre, Building D*

## **Section C**

### **Electronics and Computer Aided Engineering**

*Session Co-Chairs*

**Milos ZIVANOV**

*University of Novi Sad, Serbia*

**Eugen COCA**

*Stefan cel Mare University of Suceava, Romania*

**Mihai RATA**

*Stefan cel Mare University of Suceava, Romania*

**11:00 - 13:30 Section C - Day 2 - Session 1**

11:00 - 11:15 - Paper ID: 26

*Electrical and Switching Parameters of Amorphous  
Chalcogenide Glassy Semiconductors  $Cu_5(AsSe_{1.4}As_{0.2})_{95}$*

Miloš Slankamenac, Svetlana R. Lukić, Miloš Živanov  
*Univerzitet of Novi Sad, Serbia*

11:15 - 11:30 - Paper ID: 34

*HDL Implementation from Petri Nets Description*  
Viorica SUDACEVSCHI, Victor ABABII, Emilian GUTULEAC,  
Valentin NEGURA

*Technical Unversitez of Moldavia, Republic of Moldavia*

11:30 - 11:45 - Paper ID: 111

*Analysis of Beamforming in Phased Antenna Arrays*  
Octavian MANU, Mihai DIMIAN, Adrian GRAUR  
*Stefan cel Mare University of Suceava, Romania*

11:45 - 12:00 - Paper ID: 44

*Induction motor control with predicted maximum  
electromagnetic torque and speed*

Nicoleta Roxana BUZATU, Dimitrie ALEXA, Georgian Alexandru  
LAZAR, Dan BUTNICU, Oana Loredana BUZATU  
*Gh. Asachi Technical University of Iasi, Romania*

12:00 - 12:15 - Paper ID: 59

*Temperature influence on conversion efficiency in the case of photovoltaic cells*

Corina MARTINEAC<sup>1</sup>, Mihai HOPÎRTEAN<sup>2</sup>, Gilbert DE MEY,  
Vasile ȚOPA<sup>1</sup>, Silviu ȘTEFĂNESCU<sup>1</sup>

<sup>1</sup> *Technical Univeristz of Cluj-Napoca, Romania*

<sup>2</sup> *Utrecht University, The Netherlands*

<sup>3</sup> *Gent University, Belgium*

12:15 - 12:30 - Paper ID: 70

*GPRS controlled system for monitoring and control of well sites*

Vladimir MILOSAVLJEVIC, Milos ZIVANOV, Viktor DOGAN

*University of Novi Sad, Serbia*

12:30 - 12:45 - Paper ID: 71

*Cordless seismic data acquisition system*

Miodrag BRKIC, Predrag TEODOROVIC, Milan LUKIC, Milos ZIVANOV

*University of Novi Sad, Serbia*

12:45 - 13:00 - Paper ID: 72

*Borehole Orientation Sensor - Hardware Realization*

Viktor DOGAN, Milos ZIVANOV, Miodrag BRKIC

*University of Novi Sad, Serbia*

13:00 - 13:15 - Paper ID: 74

*Indoor Inter-Robot Distance Measurement in Collaborative Systems*

Mihai V. MICEA<sup>1</sup>, Andrei STANCOVICI<sup>1</sup>, Dan CHICIUDEAN<sup>1</sup>,  
Constantin FILOTE<sup>2</sup>

<sup>1</sup> *Politehnica University of Timișoara, Romania*

<sup>2</sup> *Stefan cel Mare University of Suceava, Romania*

13:15 - 13:30 - Paper ID: 76

*On Resonance Charts of Piezoelectric Ceramics of Perovskite-Type, in Microwave Range*

Daniela IONESCU, Iulia Brîndușa CIOBANU

*Gh. Asachi Technical University of Iasi, Romania*

**13:30 - 15:00 Lunch**

**15:00 - 16:15 Section C - Day 2 - Session 2**

15:00 - 15:15 - Paper ID: 80

*Finite State Machine Design and VHDL Coding Techniques*

Iuliana CHIUCHISAN, Alin Dan POTORAC, Adrian GRAUR

*Stefan cel Mare University of Suceava, Romania*

15:15 - 15:30 - Paper ID: 91

*Synchronous Overmodulation Control of Cascaded Inverters for  
Photovoltaic Application*

Valentin OLESCHUK, Roman PRUDEAK, Alexandr SIZOV

*Power Engineering Institute of the Academy of Sciences,  
Republic of Moldova*

15:30 - 15:45 - Paper ID: 97

*Hysteresis Modelling of Soft Magnetic Materials using LabVIEW  
Programs*

Septimiu MOTOASCA, Gheorghe SCUTARU

*Transylvania University of Braşov, Romania*

15:45 - 16:00 - Paper ID: 27

*Analysis of coupled oscillators through a series RLC network*

Iulia DUMITRESCU, Mihai IORDACHE, Mihaela IONITA

*Politehnica University of Bucharest, Romania*

16:00 - 16:15 - Paper ID: 108

*Performance Evaluations and Comparative Electromagnetic  
Compatibility Measurements on Compact Fluorescent Lamps*

Georgiana BUTA, Eugen COCA, Adrian GRAUR, Valentin POPA

*Stefan cel Mare University of Suceava, Romania*

Thursday - May 27, 2010

*Dragomir Hurmuzescu Lecture Theatre, Building D*

## Section D

### Software Engineering and Information Technologies

#### *Session Co-Chairs*

**Ioan Alfred LEȚIA**

*Technical University of Cluj-Napoca, Romania*

**Ștefan Gheorghe PENTIUC**

*Stefan cel Mare University of Suceava, Romania*

**Cristina Elena TURCU**

*Stefan cel Mare University of Suceava, Romania*

**12:30 - 13:30 Section D - Day 1 - Session 1**

12:30 - 12:45 - Paper ID: 30

*A New Hybrid Genetic Algorithm For The District Heating  
Network Problem*

Mitică CRAUS<sup>1</sup>, Florin LEON<sup>1</sup>, Dragos AROTĂRIȚEI<sup>2</sup>

<sup>1</sup> *Gh. Asachi Technical University of Iași, Romania*

<sup>2</sup> *Gr. T. Popa University of Medicine and Pharmacy of Iași,  
Romania*

12:45 - 13:00 - Paper ID: 31

*Information Security Policy in the Distributed Computer Systems*

Vadym MUKHIN, Artem VOLOKYTA

*National Technical University of Ukraine, Ukraine*

13:00 - 13:15 - Paper ID: 36

*Analysis and Determination of Risk Factors Leading to Preterm  
Birth Using Data Mining Techniques in R*

Adriana-Georgiana MALEA, Ștefan HOLBAN, Nicolae MELIȚĂ

*Politehnica University of Timișoara, Romania*

13:15 -13:30 - Paper ID: 43

*Embarking on the Road of Intrusion Detection with Erlang*

Ioan Alfred LETIA, Dan Alexandru MARIAN

*Technical University of Cluj-Napoca, Romania*

**13:30 - 15:00 Lunch**

**15:00 - 17:00 Section D - Day 1 - Session 2**

15:00 -15:15 - Paper ID: 49

*Argumentative Support for Structured HACCP Plans*

Ioan Alfred LETIA, Adrian GROZA

*Technical University of Cluj-Napoca, Romania*

15:15 - 15:30 - Paper ID: 50

*Applied Realization of Neural Network and Neurolike Parallel-  
Hierarchical System Based on GPGPU*

Andriy YAROVYY

*Vinnitsia National Technical University, Ukraine*

15:30 - 15:45 - Paper ID: 52

*An Ontological Approach to Legal Literature for Improving Legal  
Knowledge Dissemination*

Ioan Alfred LETIA<sup>1</sup>, Sorina CORNOIU<sup>2</sup>

<sup>1</sup> *Technical University of Cluj-Napoca, Romania*

<sup>2</sup> *Legislative Council, Bucharest, Romania*

15:45 - 16:00 - Paper ID: 53

*Architectural Views for Designing Relationships in Distributed  
Systems*

Anca Daniela IONITA<sup>1</sup>, Jacky ESTUBLIER<sup>2</sup>

<sup>1</sup> *Technical University of Cluj-Napoca, Romania*

<sup>2</sup> *LIG-IMAG, Grenoble, France*

16:00 - 16:15 - Paper ID: 54

*Value Based Argumentation using Formal Concepts*

Ioan Alfred LETIA, Anca GORON

*Technical University of Cluj-Napoca, Romania*



16:15 - 16:30 - Paper ID: 55

*Ontology based modeling of cultural heritage systems*

Dorin-Mircea POPOVICI<sup>1,2</sup>, Crenguta-Madalina BOGDAN<sup>1</sup>,

Ronan QUERREC<sup>2</sup>

<sup>1</sup> *Ovidius University of Constanta, Romania*

<sup>2</sup> *Ecole Nationale d'Ingénieurs de Brest, France*

16:30 - 16:45 - Paper ID: 56

*Some aspects of data integration in data mining systems*

Mirela DANUBIANU, Emanuela – Alina BOLOHAN, Radu

TIGANESCU- AMARITII

*Stefan cel Mare University of Suceava, Romania*

16:45 - 17:00 - Paper ID: 61

*Formation of Microrelief on the Base of Multilevel Elevations*

*Maps*

Sergei I.VYATKIN<sup>1</sup>, Oksana V. ROMANIUK<sup>2</sup>

<sup>1</sup> *Institute of Automation and Electrometry, Novosibirs,  
Russia*

<sup>2</sup> *Vinnitsa National Technical University, Vinnitsa, Ukraine*

Friday - May 28, 2010

*Dragomir Hurmuzescu Lecture Theatre, Building D*

## Section D

### Software Engineering and Information Technologies

#### *Session Co-Chairs*

**Ioan Alfred LEȚIA**

*Technical University of Cluj-Napoca, Romania*

**Ștefan Gheorghe PENTIUC**

*Stefan cel Mare University of Suceava, Romania*

**Cristina Elena TURCU**

*Stefan cel Mare University of Suceava, Romania*

**11:00 - 13:30 Section D - Day 2 - Session 1**

11:00 - 11:15 - Paper ID: 65

*The BRDF Models Based on the Cosine-quadratic Function*

Alexander ROMAHYUK, Yuri LYASHENKO

*Vinnitsa National Technical University, Vinnitsa, Ukraine*

11:15 - 11:30 - Paper ID: 83

*VRDN: A Software Environment for Visual Simulation of  
Rewriting Generalized Timed Differential Petri Nets Models*

Emilian GUȚULEAC, Iurie ȚURCANU, Ion BALMUȘ, Victor  
CHEIBAȘ, Alexei CORDUNENU

*Technical University of Moldova, Republic of Moldova*

11:30 - 11:45 - Paper ID: 85

*Information Technology Approach to Individual "Knapsack  
Problem" (Nanologistics)*

Sergey RYVKIN<sup>1</sup>, Denis KRASNOVSKI<sup>2</sup>

<sup>1</sup> *Trapeznikov Institute of Control Sciences of Russian  
Academy of Sciences, Russia*

<sup>2</sup> *Bank for Development and Foreign Economic Affairs, Moscow,  
Russia*

11:45 - 12:00 - Paper ID: 87

*Cryptoresistant Generator of Binary Key Sequences on the Basis  
of Cellular Automata*

Sergey OSTAPOV, Vladimir ZHIKHAREVICH, Lidiya VAL  
Chernivtsi Yuri Fed'kovich National University, Chernivtsi,  
Ukraine

12:00 - 12:15 - Paper ID: 107

*A distributed RFID based system for patients' identification and  
monitoring*

Tudor CERLINCA, Remus PRODAN, Cornel TURCU, Marius  
CERLINCA  
Stefan cel Mare University of Suceava, Romania

12:15 - 12:30 - Paper ID: 89

*ICT serves business training: Implementing Life Long Learning*

Timothy HALL<sup>1</sup>, Ileana HAMBURG<sup>2</sup>, Emma O'BRIEN<sup>1</sup>, Sinead  
MELLETT<sup>1</sup>

<sup>1</sup> University of Limerick, Limerick Ireland

<sup>2</sup> University of Applied Sciences, Gelsenkirchen, Germany

12:30 - 12:45 - Paper ID: 94

*New trend on OPC Middleware*

Simona-Anda GHERASIM, Adrian Mihai GĂITAN, Vasile  
Gheorghită GĂITAN, Valentin POPA  
Stefan cel Mare University of Suceava, Romania

12:45 - 13:00 - Paper ID: 96

*A Bee-inspired Approach for Selecting the Optimal Service  
Composition Solution*

Cristina Bianca POP, Viorica Rozina CHIFU, Ioan SALOMIE,  
Mihaela DINSOREANU, Mihaly FODOR, Irina CONDOR  
Technical University of Cluj-Napoca, Romania

13:00 - 13:15 - Paper ID: 98

*Modeling the Probability of Deadlocks in a Multithreading  
Process*

Doina LOGOFĂTU, Felix DIETRICH, Evgeni PAVLIDIS, Dennis  
WILFERT  
University of Applied Sciences Munich, Germany

13:15 - 13:30 - Paper ID: 101

*System for Real Time Detection of Hands and Pedestrians  
Movements*

Gina CRĂCIUN, Ionela RUSU, Ștefan-Gheorghe PENTIUC,  
Radu Daniel VATAVU

*Stefan cel Mare University of Suceava, Romania*

**13:30 - 15:00 Lunch**

**15:00 - 15:30 Section D - Day 2 - Session 2**

15:00 - 15:15 - Paper ID: 105

*The Application Of Genetic Algorithm For Training Without a  
Teacher*

Valeriy FRATAVCHAN

*Yurii Fedkovich Chernivtsi National University, Chernivtsi,  
Ukraine*

15:15 - 15:30 - Paper ID: 106

*HL7 Messaging Engine with Customizable Translation System*

Marius CERLINĂ, Cristina TURCU, Tudor CERLINĂ, Remus  
PRODAN

*Stefan cel Mare University of Suceava, Romania*







