

CONFERENCE PROGRAM

October 11, 2013 - Friday	
08:00 - 12:00	Registration
09:00 - 09:30	Opening ceremony
09:30 - 10:30	Plenary lecture 1
10:30 - 11:00	Company presentation 1 – ROMTELECOM
11:00 - 11:30	Coffee break
11:30 - 13:00	Regular sessions and Workshops
13:00 - 14:30	Lunch
14:30 - 16:00	Regular sessions, Invited sessions and Workshops
16:00 - 16:30	Coffee break
16:30 - 18:00	Regular sessions, Invited sessions and Workshops
19:30 - 22:30	Welcome party (Restaurant PALACE)
October 12, 2013 - Saturday	
08:00 - 12:00	Registration
09:30 - 10:30	Plenary lecture 2
10:30 - 11:00	Company presentation 2 – ROMTELECOM
11:00 - 11:30	Coffee break
11:30 - 13:00	Regular sessions, Invited sessions and Workshops
13:00 - 14:30	Lunch
14:30 - 16:00	Regular sessions and Workshops
16:00 - 16:30	Coffee break
16:30 - 18:00	Regular sessions and Workshops
19:00 - 23:00	Social Event
October 13, 2013 - Sunday	
09:30 - 10:30	Plenary lecture 3
10:30 - 11:00	Company presentation 3 – ROMTEK
11:00 - 11:30	Coffee break
11:30 - 12:45	Regular sessions
12:45 - 13:00	Closing ceremony
13:00 - 14:30	Lunch

Friday, October 11, 2013, 09:00 - 10:30

Opening ceremony

Plenary session 1

George Enescu Hall

Session chairs: Vladimir RĂSVAN, Rogelio LOZANO

Corneliu LAZĂR, Viorel MÎNZU, Dan POPESCU

Order	Authors	Title
1	Hitay OZBAY	Analysis of an Infinite Dimensional System Modeling Cell Population Dynamics in Leukemia

Friday, October 11, 2013, 10:30 - 11:00

Company presentation 1 – ROMTELECOM

George Enescu Hall

Session chairs: Eugen BOBAȘU, Dan SELIȘTEANU

Friday, October 11, 2013, 11:30 - 13:00

Session RS1-1: System analysis and synthesis 1

George Enescu Hall

Session chairs: Georges BITSORIS, Sorin OLARU

Order	Authors	Paper ID	Title
1	Nikolaos ATHANASOPOULOS, George BITSORIS, Mircea LAZĂR	100	Complexity-driven Construction of Controlled Invariant Polytopic Sets
2	Mircea LAZĂR, Alina DOBAN, Nikolaos ATHANASOPOULOS	026	On Stability Analysis of Discrete-Time Homogeneous Dynamics
3	Fabien CLAVEAU, Philippe CHEVREL	094	Modeling and Analysis of Networked Control Algorithms Using Descriptor Models
4	Clément FAUVEL, Fabien CLAVEAU, Philippe CHEVREL	016	A Generically Well-Posed H2 Control Problem for a One Shot Feedforward and Feedback Synthesis
5	Vladimir RĂSVAN	122	Stability and Control of Systems with Propagation Phenomena

Friday, October 11, 2013, 11:30 - 13:00

Session RS1-2: Fuzzy and sliding mode control

Mircea Eliade Hall

Session chairs: Jaroslav HLAVA, Corneliu LAZĂR

Order	Authors	Paper ID	Title
1	Andrzej BARTOSZEWICZ	036	Non-Switching Reaching Law for Sliding Mode Control of Discrete Time Systems
2	Andrzej BARTOSZEWICZ	111	Sliding Mode Control of Time Delay Systems – a Non-Switching Type Reaching Law Approach
3	Mihaela FLORESCU	023	Fuzzy Control Algorithm for a Tentacle Robot Arm
4	Agustin JIMENEZ, Basil AL-HADITHI, Luciano ALONSO, Juan PEREZ-ORIA	003	Linear Quadratic Regulator Based Takagi-Sugeno Model for Multivariable Nonlinear processes
5	Tomas NAHLOVSKY, Osvald MODRLAK	048	The Fuzzy Approach to the Temperature Control of Superheated Steam

Friday, October 11, 2013, 11:30 - 13:00

Session RS1-3: Software applications

Nicolae Iorga Hall

Session chairs: Przemyslaw IGNACIUK, Marius MARIAN

Order	Authors	Paper ID	Title
1	Viorel Costin BANȚA, Dorian COJOCARU	093	Development Center Tool - A Software Application for Change Request Management
2	Wadii HADI, Ahmed ZELLOU, Bouchaib BOUNABAT	038	Toward the Introduction of New Quality Dimensions in Making Decision for Selecting Information to Materialize at the Mediator Level
3	Mihai PACHIA	066	Design and Implementation of an Information Destruction Security Service in Mixed Local Area Networks
4	Mihai POSTOLACHE, Gabriel NEAMȚU, Sorin Dumitru TROFIN	031	CAN – Ethernet Gateway for Automotive Applications
5	Ionut Cristian REȘCEANU, Sabin Mihai SIMIONESCU, Cristina Floriana REȘCEANU	086	Developing a Framework for Websites With International Audience

Friday, October 11, 2013, 11:30 - 13:00

Workshop W1-1: 3rd International Workshop on Applications of Software Agents (WASA 2013)

Regele Ferdinand Hall, Hotel Caraiman

Session chairs: Mirjana IVANOVIC, Costin BĂDICĂ

Order	Authors	Paper ID	Title
1	Laura JÄRVENPÄÄ, Markku LINTINEN, Anna-Liisa MATTILA, Tommi MIKKONEN, Kari SYSTÄ, Jari- Pekka VOUTILAINEN	WASA_1	Mobile Agents for the Internet of Things
2	Jerzy DUDA, Wojciech DŁUBACZ	WASA_2	GPU Acceleration for the Web Browser Based Evolutionary Computing System
3	Barbara BASTER, Jerzy DUDA, Andrzej MACIOŁ, Bogdan RĘBIASZ	WASA_3	Rule-Based Approach to Human-Like Decision Simulating in Agent-Based Modeling and Simulation
4	Mihaela OPREA	WASA_4	The Development of an Agent-based Virtual Enterprise for Civil Engineering – A Preliminary Report
5	Marina NTIKA, Petros KEFALAS, Ioanna STAMATOPOULOU	WASA_6	Multi-Agent System Simulation of Nano-Robotic Drug Delivery in Tumours of Body Tissues

Friday, October 11, 2013, 14:30 - 16:00

Session RS1-4: System analysis and synthesis 2

George Enescu Hall

Session chairs: Radu-Emil PRECUP, Vladimir RĂSVAN

Order	Authors	Paper ID	Title
1	Aurelian CERNEA	004	On Controllability for a Nonlinear Differential Inclusion
2	Octavian PASTRAVANU, Mihaela-Hanako MATCOVSCHI, Mihail VOICU	085	Feasible and Equilibrium Solutions to the Closed Leontief Model
3	Helem Sabina SANCHEZ, Ramon VILANOVA	067	Nash-based Criteria for Selection of Pareto Optimal PI Controller
4	Vasile SIMA	034	Solving SLICOT Benchmarks for Algebraic Riccati Equations by Modified Newton's Method
5	Alina VODA, Gildas BESANÇON	059	On Noncontact Atomic Force Microscopy Control for Interaction Force and Surface Reconstruction

Friday, October 11, 2013, 14:30 - 16:00
Session RS1-5: Optimal and nonlinear control
Mircea Eliade Hall
Session chairs: Philippe CHEVREL, Dan POPESCU

Order	Authors	Paper ID	Title
1	Andrzej BARTOSZEWICZ, Piotr LEŚNIEWSKI	009	Linear Quadratic Optimal Congestion Control Strategy for Connection-Oriented Networks with Lossy Links
2	Corneliu BOTAN, Florin OSTAFI	043	Optimal Control of Perturbed Discrete Linear Systems
3	Celso Koiti IDE, Sorin OLARU, Pedro RODRIGUEZ-AYERBE, Ahmed RACHID	014	A Nonlinear State Feedback Control Approach for a Pantograph-Catenary System
4	Mihai-Florin TARAN, Pedro RODRIGUEZ-AYERBE, Sorin OLARU, Alexandru TICLEA	047	Moving Horizon Control and Estimation of a Pantograph-Catenary System
5	Sorin OLARU, Ngoc Anh NGUYEN, Georges BITSORIS, Pedro RODRIGUEZ-AYERBE, Morten HOVD	104	Explicit Robustness Margins for Discrete-Time Linear Systems with PWA Control
6	Daniela CARP, Marian BARBU, Ramon VILANOVA, Emil CEANGA	077	Process Control Engineering Considerations on the Application of Virtual Reference Feedback Tuning Method

Friday, October 11, 2013, 14:30 - 16:00
Invited Session IS1-1: Modelling, estimation & control of biotechnological processes
Nicolae Iorga Hall
Session chairs: Sihem TEBBANI, Dan SELIȘTEANU

Order	Authors	Paper ID	Title
1	Elena BUNCIU (STANCIU), Dorin ȘENDRESCU, Gheorghiuță Gabriel OPREA	037	Robust-Adaptive Control for an Anaerobic Bioprocess

2	Alina CHIROȘCĂ, Laurentiu LUCA, George IFRIM, Sergiu CARAMAN	011	Robust Control of the Biological Wastewater Treatment Process
3	Emil PETRE, Dan SELIȘTEANU	112	Adaptive and Robust-Adaptive Control Schemes for an Anaerobic Bioprocess with Biogas Production
4	Mihaela SBARCIOG, Daniel COUTINHO, Alain Vande WOUWER	068	Kinetics Independent Multivariable Robust Control of Animal Cell Cultures
5	Dorin ȘENDRESCU, Eugen BOBAȘU	118	Parameter Identification of Bacterial Growth Bioprocesses using Heuristics for Global Optimization

Friday, October 11, 2013, 14:30 - 16:00

Workshop W1-2: 3rd International Workshop on Applications of Software Agents (WASA 2013)

Regele Ferdinand Hall, Hotel Caraiman

Session chairs: Mirjana IVANOVIC, Costin BĂDICĂ

Order	Authors	Paper ID	Title
1	Sorin ILIE, Costin BĂDICĂ	WASA_7	A Comparison of the Island and ACODA Approaches for Distributing ACO
2	Davide ANGHINOLFI, Alberto CAPOGROSSO, Massimo PAOLUCCI, Francesco PERRA	WASA_8	An Agent-Based Simulator for the Evaluation of the Measurement of Effectiveness in the Military Naval Tasks
3	Dejan MITROVIC, Mirjana IVANOVIC, Costin BĂDICĂ	WASA_9	Jason Agents in Java EE Environments
4	Dan NOVISCHI, Adina FLOREA	WASA_10	Toward a Real-Time Heterogeneous Mobile Robotic Swarm: Robot Platform and Agent Architecture
5	Mihaela-Alexandra PUICA	WASA_12	An Approach to Evaluate the Performance of a User Affective Agent

Friday, October 11, 2013, 16:30 - 18:00

**Workshop W2: International Workshop on Systems Safety & Security
for Automotive, Passengers & Goods Protection (IWSSS 2013)**

George Enescu Hall

Session chairs: Emil PRICOP, Nicolae PARASCHIV

Order	Authors	Paper ID	Title
1	Mircea STRUTU, Grigore STAMATESCU, Dan POPESCU	IWSSS_4	A Mobile Sensor Network Based Road Surface Monitoring System
2	Emil PRICOP	IWSSS_7	On the Design of an Innovative Solution for Increasing Hazardous Materials Transportation Safety
3	Silviu POPOVICI	IWSSS_10	Bluetooth Enabled Wireless Networks Sensors
4	Ciprian TABACU, Octav DINU, Dan Lucian CĂMPAN, Ciprian LUPU	IWSSS_1	Vehicle Suspension Systems Multi- Modelling
5	Georgiana MAȚEESCU, Marius VLĂDESCU	IWSSS_2	Secure On Premise - On Demand Services Communication
6	Zoran CONSTANȚINESCU, Monica VLĂDOIU	IWSSS_11	Challenges in Safety, Security, and Privacy in the Development of Vehicle Tracking Systems
7	Mitruț Corneliu CARAIVAN, Valentin DACHE, Valentin SGĂRCIU	IWSSS_6	Optimal Location for Underwater Data Collection Sensor Network Nodes Creating Multi-Purpose "Safe-Nets" Around Offshore Exploration Areas

Friday, October 11, 2013, 16:30 - 18:00

**Workshop W3: 6th International Workshop on Social and Personal
Computing for Web-Supported Learning Communities (SPeL 2013)**

Mircea Eliade Hall

Session chairs: Elvira POPESCU, Andrea STERBINI

Order	Authors	Paper ID	Title
1	Andrea STERBINI, Marco TEMPERINI	SPeL_6	Analysis of Open Answers Via Mediated Peer-Assessment
2	Maria DE MARSICO, Marco TEMPERINI	SPeL_7	Average Effort and Average Mastery in The Identification of the Zone of Proximal Development
3	Boban VESIN, Mirjana IVANOVIC, Aleksandra KLAŠNJA- MILIĆEVIĆ	SPeL_10	Improving Testing Abilities of a Programming Tutoring System

4	Florin LEON, Elvira POPESCU	SPeL_14	Exploring the Relationships between Students' Learning Styles and Social Media Use in Educational Settings
5	Safa BEN SALEM, Lilia CHENITI BELCADHI, Rafik BRAHAM	SPeL_13	Using Concept Maps in Knowledge Assessment of Short and Open Answer Questions
6	Jalel AKAICHI, Zeineb DHOUIOUI, Maria José LÓPEZ-HUERTAS PÉREZ	SPeL_3	Text Mining Facebook Status Updates for Sentiment Classification

Friday, October 11, 2013, 16:30 - 18:00

Invited Session IS1-2: Modelling, estimation & control of biotechnological processes

Nicolae Iorga Hall

Session chairs: Sihem TEBBANI, Dan SELIȘTEANU

Order	Authors	Paper ID	Title
1	Daniela CARP, Marian BARBU, Viorel MÎNZU	087	Robust Control of an Activated Sludge Wastewater Treatment Process
2	Sette DIOP, Jean Philippe STEYER, Ivan SIMEONOV	107	A Dynamic Estimation Scheme of Specific Growth Rates of Bacteria for an Anaerobic Wastewater Treatment Process
3	Karen GONZALEZ, Sihem TEBBANI, Didier DUMUR, Dominique PAREAU, Filipa LOPES, Sébastien GIVRY, Françoise ENTZMANN	046	Modeling and Parameter Identification of the Batch Lactic Acid Production Process from Wheat Flour
4	Sihem TEBBANI, Laurent Le BRUSQUET, Emil PETRE, Dan SELIȘTEANU	106	Robust Moving Horizon State Estimation: Application to Bioprocesses
5	Hongyang XU, Ramon VILANOVA	049	Comparison of Control Strategies on Combined Biological Phosphorus and Nitrogen Removal Wastewater Treatment Process

Friday, October 11, 2013, 16:30 - 18:00

**Workshop W1-3: 3rd International Workshop on Applications of
Software Agents (WASA 2013)**

Regele Ferdinand Hall, Hotel Caraiman

Session chairs: Costin BĂDICĂ, Marius BREZOVAN

Order	Authors	Paper ID	Title
1	Rafał TKACZYK, Maria GANZHA, Marcin PAPRZYCKI	WASA_13	AgentPlanner - Agent-Based Timetabling System - Preliminary Design and Evaluation
2	Marius BREZOVAN, Liana STĂNESCU, Eugen GANEA	WASA_14	From GMoDS Models to Object-Oriented Specifications in Event-B
3	Bogdan MANATE, Victor MUNTEANU	WASA_11	Handling Data Heterogeneity in Internet of Things
4	Lucian LUNCEAN, Costin BĂDICĂ	WASA_15	Multi-Agent System for Brokering of Logistics Services - Preliminary Analysis
5	Maria GANZHA, Mariusz Marek MESJASZ, Marcin PAPRZYCKI	WASA_16	Travel Support System

Saturday, October 12, 2013, 09:30 - 10:30

Plenary session 2

George Enescu Hall

Session chairs: Corneliu LAZĂR, Vladimir RĂSVAN

Order	Authors	Title
1	Andrzej BARTOSZEWICZ	Sliding Mode Control: Concepts Ideas and Impressions

Saturday, October 12, 2013, 10:30 - 11:00

Company presentation 2 – ROMTELECOM

George Enescu Hall

Session chairs: Eugen BOBAȘU, Marius MARIAN

Saturday, October 12, 2013, 11:30 - 13:00

Session RS2-1: Predictive control and applications

George Enescu Hall

Session chairs: Andrzej BARTOSZEWICZ, Mircea LAZĂR

Order	Authors	Paper ID	Title
1	Sabin-Constantin CARPIUC, Corneliu LAZĂR	029	Low-Computational-Complexity Algorithm for Current Predictive Control of an Externally Excited Synchronous Machine
2	Jamil EL HADEF, Sorin OLARU, Pedro RODRIGUEZ-AYERBE, Guillaume COLIN, Yann CHAMAILLARD, Vincent TALON	092	Nonlinear Model Predictive Control of the Air Path of a Turbocharged Gasoline Engine Using Laguerre Functions
3	Jaroslav HLAVA	105	Evaluation of a Simplified Multi Model Predictive Controller for a Three Stage Power Plant Superheater Based on Projection of Controller Output onto the Admissible Set
4	Przemyslaw IGNACIUK	024	Inventory Management in Systems with Perishable Goods and Unreliable Production-Delivery Channels
5	Joanna Ewa ORZECZOWSKA, Andrzej BARTOSZEWICZ, Keith BURNHAM, Dobrila PETROVIC	103	A Simple Approach to MPC of Perishable Inventory Systems
6	Veaceslav SPÎNU, Jan SCHELLEKENS, Mircea LAZĂR, Marcel HENDRIX	061	On Real-Time Optimal Control of High-Precision Switching Amplifiers

Saturday, October 12, 2013, 11:30 - 13:00

Session RS2-2: Computational intelligence, data mining, multi-agent systems 1

Mircea Eliade Hall

Session chairs: Marius BREZOVAN, Petru CAȘCAVAL

Order	Authors	Paper ID	Title
1	Sorina CORNOIU, Honoriu VĂLEAN	013	New Development for Legal Information Retrieval Using the Eurovoc Thesaurus and Legal Ontology
2	Lucian-Ovidiu FEDOROVICI, Radu-Emil PRECUP, Florin DRAGAN, Constantin PURCARU	005	Evolutionary Optimization-Based Training of Convolutional Neural Networks for OCR Applications
3	Constantin PURCARU, Radu-Emil PRECUP, Daniel IERCAN, Lucian-Ovidiu FEDOROVICI, Radu-Codruț DAVID	006	Hybrid PSO-GSA Robot Path Planning Algorithm in Static Environments with Danger Zones
4	Csaba SZASZ, Adrian CIOLOCA	081	Two-layer Coarse-fine-grid Network Model for Bio-inspired Computing Systems Development
5	Alexandru ȚIGĂNAȘU, Corneliu LAZĂR	039	Singular Regions Detection in Fingerprint Images

Saturday, October 12, 2013, 11:30 - 13:00

Session RS2-3: Process control

Nicolae Iorga Hall

Session chairs: Sergiu CARAMAN, Ramon VILANOVA

Order	Authors	Paper ID	Title
1	Anca MAXIM, Clara-Mihaela IONESCU, Cosmin COPOT, Corneliu LAZĂR, Robin De KEYSER	062	Multivariable Model-Based Control Strategies for Level Control in a Quadruple Tank Process
2	Mădălin MĂȚĂSARU	116	Synchronisation of Two DC Servo SRV-02ET Motors Using xPC Target
3	Cristina-Ioana MUREȘAN, Eva-Henrietta DULF, Roxana BOTH	040	Fractional and Integer Order Control. Application to DC motor speed control

4	Vlad MUREȘAN, Mihail ABRUDEAN, Tiberiu COLOȘI, Mihai SECARĂ	102	Convergent Control of the Residual Water Blunting System Used in Metallurgy
5	Matei VÎNĂTORU, Camelia MAICAN, Corneliu VÎNĂTORU	084	Fault detection and Isolation for Hydropower Systems using Adaptive Residual Approach

Saturday, October 12, 2013, 11:30 - 13:00

Workshop W4-1: Medical and Rehabilitation Engineering Applications

Regele Ferdinand Hall, Hotel Caraiman

Session chairs: Nirvana POPESCU, Dorin POPESCU

Order	Authors	Paper ID	Title
1	Dorin POPESCU, Juan Lopez PASCUAL, Marius MARIAN, Mihaela ILIE, Ignacio Bermejo BOCH	MREA_12	Case Studies of Human Motion Analysis for e-learning in Biomedical Engineering
2	Vassilis VIRVILIS, Stavros PERANTONIS, Konstantinos ZAGORIS, Ioannis PRATIKAKIS	MREA_7	A Multimodal e-Learning Environment for Orthopedics: Design and Implementation Challenges
3	Elena Taina AVRAMESCU, Olivera LUPESCU, Gheorghe Ion POPESCU, Cristina PATRU, Mihail NAGEA	MREA_8	New Approaches in Orthopedic Medical Education by E-Learning
4	Nirvana POPESCU, Marian POBORONIUC, Dorin POPESCU, Cristian Dinu POPESCU	MREA_3	Intelligent Haptic Robotic Glove for Patients Diagnosed with Cerebrovascular Accidents
5	Dorin POPESCU, Mircea IVĂNESCU, Cosmin BERCEANU, Alina GIDEA	MREA_9	Researches for Robotic Glove Development with Application in Robotics Rehabilitation
6	Sergiu HARTOPANU, Marian POBORONIUC, Danut IRIMIA, Florin SEREA	MREA_10	Design of a Hybrid FES-Mechanical Intelligent Haptic Robotic Glove

Saturday, October 12, 2013, 14:30 - 16:00

Session RS2-4: Robotics 1

George Enescu Hall

Session chairs: Mircea IVĂNESCU, Adrian FILIPESCU

Order	Authors	Paper ID	Title
1	Luciano ALONSO, Juan PÉREZ-ORIA, Basil AL-HADITHI, Agustín JIMÉNEZ	022	Self-Tuning PID Controller for Autonomous Car Tracking in Urban Traffic
2	Mircea IVĂNESCU, Dorian COJOCARU, Mihaela FLORESCU, Sorin DUMITRU, Florin MANTA	007	Control by Position Sensors for a Hyper-redundant Robot
3	Răzvan ŞOLEA, George VELICHE, Daniela-Cristina CERNEGA, Mădălina-Roxana TEACĂ	057	Indoor 3D Object Model Obtained using Data Fusion from Laser Sensor and Digital Camera on a Mobile Robot
4	Ileana VLADU, Mircea IVĂNESCU, Ionel Cristian VLADU	069	Hyper-Redundant Arm Actuation with Electro-Pneumatic Actuation System – Part I - Construction

Saturday, October 12, 2013, 14:30 - 16:00

**Session RS2-5: Computational intelligence, data mining,
multi-agent systems 2**

Mircea Eliade Hall

Session chairs: Elvira POPESCU, Honoriu VĂLEAN

Order	Authors	Paper ID	Title
1	Abdel Alnasser ALASFOUR, Ştefan TRAUŞAN-MATU	074	Developing an Arabic Corpus for Event Mining
2	Iulia BADEA, Ştefan TRAUŞAN-MATU	019	Text Analysis Based on Time Series
3	Lavinia FERARIU, Corina CIMPANU	025	Multi-Objective Genetic Algorithm with Clustering- based Ranking and Direct Control of Diversity
4	Bogdan TÂRNAUCĂ, Dan PUIU, Anca PETRESCU, Vasile COMNAC	109	Petri Net based Agent Behaviour Definition and Execution for Multi-agent Systems
5	Gabriela VARVARA	095	Multi-agent Team Formation and Execution for a Holonic Palletizing Scenario

Saturday, October 12, 2013, 14:30 - 16:00

Invited Session IS2: Real time control applications

Nicolae Iorga Hall

Session chairs: Ciprian LUPU, Dumitru POPESCU

Order	Authors	Paper ID	Title
1	Catalin DIMON, Andreea Ioana UDREA	097	Compartmental Networks Approach on Urban Traffic Control
2	Ciprian LUPU, Cătălin PETRESCU, Gabriel FLOREA, Mircea LUPU	032	Steering Control for Multiple Propulsion Systems
3	Silviu MEDIANU, Dumitru POPESCU, Laurent LEFEVRE, Ciprian LUPU	083	Identification of a Distributed Parameters System for Thermo-Energetic Applications
4	Stevenson PIERRE, Cristian NICHITA, Jérôme BROSSARD, Chul H. JO	001	Concept Development of Real Time Emulators for Offshore Wind Power (OWP) and Tidal Current Power (TCP) Hybrid System
5	Valentin TANASA, Andrei Ioan CHIRIAC, Dumitru POPESCU	088	Errors Estimation and Refining Methods for the Numerical Computation in Real-Time Control Systems

Saturday, October 12, 2013, 14:30 - 16:00

Workshop W4-2: Medical and Rehabilitation Engineering Applications

Regele Ferdinand Hall, Hotel Caraiman

Session chairs: Marian POBORONIUC, Dorin POPESCU

Order	Authors	Paper ID	Title
1	Simona NOVEANU, Beniamin CHETRAN, Olimpiu TĂTAR, Gelu RĂDUCANU, Dan MÂNDRU	MREA_13	Structural Synthesis of the Upper Limb Modular Wearable Exercisers
2	Florin SEREA, Marian POBORONIUC, Danut IRIMIA, Sergiu HARTOPANU, Radu OLARU	MREA_11	Preliminary Results on a Hybrid FES-Exoskeleton System Aiming To Rehabilitate Upper Limb in Disabled People
3	Beniamin CHETRAN, Simona NOVEANU, Gelu RADUCANU, Olimpiu TATAR, Dan MÂNDRU	MREA_15	Modelling of the Upper Limb Wearable Exercisers

4	Vlad CIOBANU, Norman HENDRICH, Adrian PETRESCU, Jianwei ZHANG	MREA_4	Tactile Sensor Value Preprocessing Pipeline
5	Vlad CIOBANU, Martin NOESKE, Nirvana POPESCU, Adrian PETRESCU	MREA_5	Robot Telemanipulation System
6	Cornel POPESCU	MREA_6	Wireless Intelligent Control of a Mobile Robot used for Tracking and Monitoring of Patients
7	Teodoru POPA, Mihai MOCANU	MREA_1	Coronary Artery Segmentation in Cardiac Angiography Images based on a Hybrid Approach

Saturday, October 12, 2013, 16:30 - 18:00

Session RS2-6: Robotics 2

George Enescu Hall

Session chairs: Dorian COJOCARU, Alina VODĂ

Order	Authors	Paper ID	Title
1	Bogdan DUMITRAȘCU, Adrian FILIPESCU, Alina VODĂ, Eugenia MINCA, Silviu FILIPESCU, George PETREA	030	Laser-based Obstacle Avoidance Algorithm for Four Driving/Steering Wheels Autonomous Vehicle
2	George PETREA, Adrian FILIPESCU, Eugenia MINCA, Alina VODĂ, Adrian FILIPESCU Jr, Adriana ȘERBENCU	050	Hybrid Modelling Based Control of a Processing/Reprocessing Mechatronics Line Served by an Autonomous Robotic System
3	Cosmin MARCU, Gheorghe LAZEA, Daniela BORDENCEA, Diana LUPEA, Honoriu VĂLEAN	054	Robot Orientation Control Using Digital Compasses
4	Sorin MĂNOIU-OLARU, Mircea NIȚULESCU	052	Locomotion Strategies over Obstacles for a Hexapod Robot Using Matlab
5	Vladimir JIGĂNAȘ, Marius KLOETZER, Adrian BURLACU	041	Multi-Robot Based Implementation for a Sample Gathering Problem

Saturday, October 12, 2013, 16:30 - 18:00

Session RS2-7: Modelling and simulation 1

Mircea Eliade Hall

Session chairs: Eva-Henrietta DULF, Dorin ŞENDRESCU

Order	Authors	Paper ID	Title
1	Lucian Florentin BĂRBULESCU, Viorel Nicolae MÎNZU	033	Design and Implementation of an Elementary Simulator for the Miter-Type Gate of a Navigation Lock
2	Mihaela CONSTANTINESCU, Mihai CONSTANTINESCU, Honoriu VĂLEAN	115	GPS Collars Data Visualization for Wildlife Management
3	Sanda DALE, Helga Maria SILAGHI, Claudiu COSTEA	113	Procedural and Software Development of a Liapunov-based Stability Analysis Method for Interpolative-type Control Systems
4	Monica ROMAN, Dan SELIŞTEANU, Eugen BOBAŞU, Dorin ŞENDRESCU	114	Modeling of Culture Cells for Pharmaceutical Industry Applications
5	Gabriel VLĂDUJ, Sebastian SBIRNA, Liana Simona SBIRNA, Cristian CODRESI	073	Mathematical Modeling of the Concentration Values for Main Air Pollutants in Craiova (Romania) Between 2010 and 2011

Saturday, October 12, 2013, 16:30 - 18:00

Session RS2-8: Identification

Nicolae Iorga Hall

Session chairs: Pedro RODRIGUEZ-AYERBE, Dumitru POPESCU

Order	Authors	Paper ID	Title
1	Elena CIMPOEŞU, Bogdan CIUBOTARU, Dan ŞTEFĂNOIU	018	State-Space Parameter Estimation for Closed-Loop Fault Detection and Identification
2	Carmen COCHIOR, Paul van den BOSCH, Siep WEILAND	055	Robust State Estimator Design for Systems with Input-Induced Nonlinearities: An Industrial Printer Case Study
3	Zeineb LASSOUED, Kamel ABDERRAHIM	098	A comparison study of some PWARX system identification methods

4	Ahlem SASSI, Saida BEDOUI, Kamel ABDERRAHIM	096	Time Delay System Identification Based on Optimization Approaches
5	Liviu TOMESC, Petru DOBRA, Bogdan BETEA	063	Practical Aspects of the System Identification of a Buck Converter

Saturday, October 12, 2013, 16:30 - 18:00

**Workshop W4-3: Medical and Rehabilitation Engineering Applications
Regele Ferdinand Hall, Hotel Caraiman**

Practical Demo

Issues on Brain-Computer Interfaces to control neuroprostheses aiming to rehabilitate the upper limb

A practical set-up of the entire system will be presented during the demonstration as well as new results obtained during some clinical trials.

Organizers:

Marian POBORONIUC, Danut-Constantin IRIMIA, Sergiu HARTOPANU, Florin SEREA

Sunday, October 13, 2013, 09:30 - 10:30

Plenary session 3

George Enescu Hall

Session chairs: Viorel MÎNZU, Vladimir RĂSVAN

Order	Authors	Title
1	Morten HOVD	Introduction to Bi-level Programming in Constrained Control

Sunday, October 13, 2013, 10:30 - 11:00

Company presentation 3 – ROMTEK

George Enescu Hall

Session chairs: Eugen BOBAȘU, Dan POPESCU

Sunday, October 13, 2013, 11:30 - 12:45

Session RS3-1: Signal processing

George Enescu Hall

Session chairs: Mihaela-Hanako MATCOVSCHI, Monica ROMAN

Order	Authors	Paper ID	Title
1	Bogdan BETEA, Liviu TOMESC, Petru DOBRA	070	Bearing defects diagnosis based on Gaussian filtering shock detection and power spectrum of envelope
2	Ștefănuț CIOCHINĂ, Mirela PRAISLER	027	Optimization of Amphetamines Multivariate Detection by GC-FTIR Spectra Preprocessing
3	Eva-Henrietta DULF, Roxana BOTH, Clement FEȘTILĂ, Marius Iosif GRETINGER	080	Non-conventional Techniques for Frequency Response Function Measurements and Analysis
4	Constantina Raluca MIHALACHE, Bogdan APOSTOL	101	Hand Pose Estimation Using Hog Features from RGB-D Data
5	Mirela PRAISLER, Ștefănuț CIOCHINĂ	060	Intelligent Screening for Designer Drugs: A Signal Analysis

Sunday, October 13, 2013, 11:30 - 12:45

Session RS3-2: Modelling and simulation 2

Mircea Eliade Hall

Session chairs: Mitica CRAUS, Mircea NIȚULESCU

Order	Authors	Paper ID	Title
1	Adrian FLOREA, Andrei KLEIN, Victor BADEA, Mihai STEFANESCU, Arpad GELLERT	008	Using FOCAP Tool for Teaching Microarchitecture Simulation and Optimization
2	Andra Silvana HEGEDUS, Cosmin COPOT, Amelie CHEVALIER, Ioan NASCU, Robin De KEYSER	064	Remote Laboratory: A Novel Tool for Control Engineering Laboratories
3	Ricardo LOPEZ, Hipolito AGUILAR- SIERRA, Sergio SALAZAR, Rogelio LOZANO	010	Model and Control of the ELLTIO with Two Degrees of Freedom
4	Rogelio LOZANO Jr, Jonathan DUMON, Ahmad HABLY	065	Reverse Pumping: Theory and Experimental Validation on a Multi-Kites System
5	Gabriel HARJA, Andres HERNANDEZ, Ioan NASCU, Robin De KEYSER	079	Embedded Real-Time MPC Implementation Using Rapid Prototyping Tools: a Thermal Process Case Study

Sunday, October 13, 2013, 11:30 - 12:45

Session RS3-3: Electronics, measurements and monitoring

Nicolae Iorga Hall

Session chairs: Francois GATTO, Emil PETRE

Order	Authors	Paper ID	Title
1	Gheorghe Doru DICU, Ionuț Bogdan DICU	053	Intelligent System for Monitoring and Controlling Environmental Parameters for Spaces Intended for Telecommunications Equipment
2	Dragoș George DUCU	082	A New Discreet Time Sigma Delta Modulator with Fully Differential Current Conveyor

3	Francois GATTO, Marie-Pierre GLEIZES, Lucas ELICEGUI	071	Self-Adaptive Energy Saver
4	Dorina Mioara PURCARU, Ion PURCARU, Ioan Mircea GORDAN	108	Equipment for Monitoring and Analysis of Transient Electrical Events in Power Systems
5	Ciprian SORANDARU, Marius BABESCU, Sorin MUȘUROI	076	Load Control Method for Photovoltaic Solar Panels Based on the Measurement of Short Circuit Currents
6	Tudor VLAS, Andres HERNANDEZ, Cosmin COPOT, Ioan NASCU, Robin De KEYSER	045	Identification and Path Following Control of an AR.Drone Quadrotor

Sunday, October 13, 2013, 12:30 - 13:00

Closing ceremony

George Enescu Hall

Session chairs: Vladimir RĂSVAN, Rogelio LOZANO

Corneliu LAZĂR, Viorel MÎNZU, Dan POPESCU