

## May 17, Thursday

<b>9:00 – 9:20</b>	<b>OPENING CEREMONY</b>	<b>Room A 109</b>
<b>9:20 – 10:00</b>	<b>PLENARY SESSION</b> Human-Machine Interaction and Symbiotic Partnership for Environment Sensing and Perception <i>Emil M. Petriu</i>  <i>Session Chair: Stefan Preitl</i>	<b>Room A 109</b>
<b>10:00 – 10:20</b>	<b>COFFEE BREAK</b>	
<b>10:20 – 12:40</b>	<b>SPECIAL SESSION</b> Intelligent Engineering  <i>Special session organizer and session chair: Imre J. Rudas</i>	<b>Room A 109</b>
10:20 – 11:00	<b>PLENARY TALK</b> Geometric Approach to Nonlinear Adaptive Control <i>József K. Tar, Imre J. Rudas</i>	
11:00 – 11:20	Migrative Triangular Norms <i>János Fodor, Imre J. Rudas</i>	
11:20 – 11:40	Communication and Knowledge Intensive Engineering Modeling in Virtual Spaces <i>László Horváth, Imre J. Rudas, Simona Vaivoda, Zsuzsa Preitl</i>	
11:40 – 12:00	Axioms of the System Behavior in FLC Using Uninorms <i>Márta Takács</i>	
12:00 – 12:20	Calibration System for Dial Gauges <i>Gyula Hermann</i>	
12:20 – 12:40	Future Transportation: Intelligent Vehicles in Intelligent Environment <i>László Nádai, Roland Kovács</i>	
<b>12:40 – 14:00</b>	<b>LUNCH</b>	

<b>14:00 – 15:20 PARALLEL SESSIONS</b>		
Oral Session	Oral Session	Poster Session

**14:00 – 15:20 Session Modelling I Room A 109**

Session Chair: *László Horváth*

14:00 – 14:20 Towards an Attractor-based Natural Language Modeling  
*M. Crisan*

14:20 – 14:40 Haptic Human Interfaces for Robotic Telemanipulation  
*Emil M. Petriu, Pierre Payeur, Ana-Maria Cretu*

14:40 – 15:00 A Flexible Chronic Care Model Implementation in a GP Software  
*V. Stoicu-Tivadar, D. Berian, D. Nica*

15:00 – 15:20 Interpolative Models Regarding the Health Status of a Population  
*D. Berian, T. L. Dragomir*

**14:00 – 15:20 Session Intelligent Control Room A 115**

Session Chair: *Ioan Filip*

14:00 – 14:20 Providing Grid Systems' Dependability and Security  
*Răzvan Bogdan*

14:20 – 14:40 Dynamic Policy Based Replication on the Grid  
*Dacian Tudor, Georgiana Macariu, Vladimir Cretu*

14:40 – 15:00 Problem Setting and Modeling in Vehicles and Pedestrians Traffic Control Using Sensor Networks  
*O. Baniaş, R.-E. Precup, D.-I. Curiac*

15:00 – 15:20 Developing a Logopaedic Mobile Device Using an FPGA  
*Marius Cristian Cerlincă, Adrian Graur, Stefan Gheorghe Pentiu, Tudor Ioan Cerlincă*

**14:00 – 15:20 Poster Session**

Two-Degree-Of-Freedom Fuzzy Control in Decentralized Trajectory Tracking  
*R.-E. Precup, Zs. Preitl, S. Preitl, S. Vaivoda, J. K. Tar, M. Takács*

Robustness Analysis of a Novel Adaptive Control based on Geometric Approach  
*József K. Tar, János F. Bitó*

A Web Connected Smart Sensor  
*M. Popa, A. S. Popa, C. Patitoiu*

**15:20 – 15:35 COFFEE BREAK**

**15:35 – 16:35 PARALLEL SESSIONS**

Oral Session	Oral Session	Poster Session
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**15:35 – 16:35 Session Neural Network and AI Room A 109**

Session Chair: *László Bakó*

15:35 – 15:55 FPGA Parallel Implementation of CMAC Type Neural Network with on Chip Learning

*S. T. Brassai, L. Bakó, Ş. Dan*

15:55 – 16:15 Using Plausible Reasoning Theory

*Claudiu Pozna*

16:15 – 16:35 Expert System for Medical Predictions

*Doina Drăgulescu, Adriana Albu*

**15:35 – 16:35 Session Computational Intelligence Room A 115**

Session Chair: *Mircea Popa*

15:35 – 15:55 Fuzzy Logic Controller for the Liénard System

*Marius L. Tomescu*

15:55 – 16:15 A Computational Intelligence Approach for Ranking Risk Factors in Preterm Birth

*Daniela Zahariea, Stefan Holbanb, Diana Lungeanuc, Dan Navoland*

16:15 – 16:35 The effect of different fuzzy partition parameterization strategies in gradient descent parameter identification

*Zsolt Csaba Johanyák, Szilveszter Kovács*

**15:35 – 16:35 Poster Session**

Towards Scalable Distributed Control of Unmanned Autonomous Vehicles

*Meng Wang, Alex Doboli, Thomas Robertazzi, Simona Doboli, Daniel Curiaç*

Object Description Based Processes for Higher Education in Global Computer Networks

*Radu-Emil Precup, József Gáti, Gyula Kártyás, Stefan Preitl*

A Simple Control Solution for Traction Motor Used in Hybrid Vehicles  
*Zsuzsa Preitl, Péter Bauer, József Bokor*

**17:00 – 18:00**

**DHC AWARD**

**Room A 101**

**DHC SPEECH**

Geometric Theory and Control of Linear Parameter Varying Systems

*József Bokor*

**18:00**

**RECEPTION**

# May 18, Friday

9:00 – 9:40

## TUTORIAL

Performance Analysis of UML Software Models

*Dorina Petriu*

9:40 – 11:00

## PARALLEL SESSIONS

Oral Session	Oral Session	Poster Session
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9:40 – 11:20

### Session Informatics and Network System

**Room 109**

Session Chair: *Claudiu Pozna*

9:40 – 10:00

Local Wireless Positioning System

*Marius Marcu, Sebastian Fuicu, Anania Girban*

10:00 – 10:20

Tree-In-Motion Mapping: A Multi-Agent Solution for Environment Monitoring

*Rami Abielmona, Emil M. Petriu, Voicu Groza*

10:20 – 10:40

Performances Analysis on Video Transmission in a Wireless Sensor Network

*Bogdan Ciubotaru, Dan Pescaru, Doru Todinca*

10:40 – 11:00

Digital Watermarking using Karhunen-Loeve Transform

*Daniela Stanescu, Mircea Stratulat, Bogdan Ciubotaru, Dan Chiciudean, Razvan Cioarga, Daniel Borca*

9:40 – 11:00

### Session Process Control and Image Processing

**Room 115**

Session Chair: *János Fodor*

9:40 – 10:00

Map Building and Localization of a Robot Using Omnidirectional Image Sequences

*Zoltán Vámosy*

10:00 – 10:20

Model Predictive Control of the (13C) Isotope Separation Column

*E. H. Dulf, Cl. Festila*

10:20 – 10:40

Automatic Parametrization of Region Finding Algorithms in Gray Images

*Szabolcs Sergyán, László Csink*

10:40 – 11:00

Improved High Dynamic Range Image Reproduction Method

*András Rövid, Takeshi Hashimoto, Péter Várlaki*

**9:40 – 11:00 Poster Session**

Using Registration Algorithms for Wireless Sensor Network Node Localization

*Daniela Fuiorea, Vasile Gui, Dan Pescaru, Corneliu Toma*

Fuzzy Control Systems based on Parametric TNorm Function

*József Tick*

Image Retrieval by Shape Based on Contour Techniques – A Comparative Study

*Irina Mocanu*

**11:00 – 11:20 COFFEE BREAK**

**11:20 – 12:40 PARALLEL SESSIONS**

Oral Session	Oral Session	Poster Session
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**11:20 – 12:40 Session Modelling II Room 109**

Session Chair: *Marius L. Tomescu*

11:20 – 11:40 Representing and Comparing Competences Using Agents

*Alexandru Cicortas, Victoria Jordan*

11:40 – 12:00 Using Petri Nets to Model the Web Structure

*Shih-Yang Yang, Po-Zung Chen, Chu-Hao Sun*

12:00 – 12:20 Implementation of an Authentication Protocol for Sending Audio-Video Information in Java

*Bogdan Groza, Dorina Petrica, Simona Barbu, Mariana Bilanin*

12:20 – 12:40 Embedding Data in Video Stream using Steganography

*Daniela Stanescu, Mircea Stratulat, Bogdan Ciubotaru, Dan Chiciudean, Razvan Cioarga, Mihai Micea*

**11:20 – 12:40 Session Intelligent Mechatronics Room 115**

Session Chair: *Stefan Preitl*

11:20 – 11:40 Simulated Fault Injection for Quantum Circuits Based on Simulator Commands

*Oana Boncalo, Mihai Udrescu, Lucian Prodan, Mircea Vlăduțiu, Alexandru Amăricăi*

11:40 – 12:00 About Initial Setting of a Self-Tuning Controller

*Filip Ioan, Vasar Cristian*

12:00 – 12:20 Considerations regarding the Induction Generator’s Self-Excitation within Energy Power Stations  
*Nicolae Budisan, Ioan Filip, Octavian Prostean, Iosif Szeidert, Lucian Mihet-Popa*

12:20 – 12:40 The Modeling Process of a Human Hand Prosthesis  
*Doina Drăgulescu*

**11:20 – 12:40 Poster Session**

Energy Absorption Modelling Technique for Car Body Deformation  
*István Harmati, András Rövid, Péter Várlaki*

Performance Evaluation for Training a Distributed BackPropagation Implementation  
*Sorin Babii*

An Untimed Petri Net Model for an Automatic Transport System with Accumulation Areas  
*Dan Ungureanu-Anghel, Octavian Prostean*

Measurement of Robot Arm with Stress Investigation Method  
*Attila L. Bencsik*

**12:40 CLOSING CEREMONY**

**Room A 109**

**13:00 LUNCH**