

Friday, October 19th

09.30 – 09.40 Opening

09.40 – 10.40 Plenary Session: Hybrid systems: a control theoretic perspective
József Bokor, Zoltán Szabó, László Nádai, Imre J. Rudas (Hungary)

10.40 – 11.00 Coffee break

Session: Fuzzy Systems

11.00 – 11.20 How to Aggregate Information in Intelligent Systems?
János Fodor (Hungary)

11.20 – 11.40 Emulating Quantum Interference and Quantum Associative Memory Using Fuzzy Qubits
M. Skander Hannachi, Fangyan Dong, Kaoru Hirota (Japan)

11.40 – 12.00 Distance-based Operations on Type-2 Fuzzy Sets
Márta Takács (Hungary)

12.00 – 12.20 Plausible Reasoning and Fuzzy Logic
Claudiu Pozna, Radu-Emil Precup (Romania)

12.20 – 12.40 Fuzzy Sliding Mode Control of Rotary Inverted Pendulum
M. Ahmadiéh Khanesar, M. Aliyari Shoorehdeli (Iran)

12.40 – 14.40 Lunch break

Session: Control Systems

14.40 – 15.00 Historical Background and Coincidences of Kalman System Realization Theory
József Bokor, László Nádai, Péter Várlaki (Hungary)

15.00 – 15.20 Consideration Regarding the Convergence and Stability of an Adaptive Self-Tuning Control System
Ioan Filip, Octavian Prostean, Iosif Szeidert, Cristian Vasar (Romania)

15.20 – 15.40 SVD-Based Multiple Dimensional Generalization of an Adaptive Control of Geometric Interpretation
József K. Tar, József Gáti, Zoltán Puklus (Hungary)

15.40 – 16.00 GIS Intelligent Solution
Vasile Lupu, Catalin Lupu (Romania)

16.00 – 16.20 Coffee break

Session: Neural Networks

16.20 – 16.40 Feed-Forward and Recurrent Neural Networks in Signal Prediction
Ales Prochazka, Ales Pavelka (Czech Republic)

16.40 – 17.00 Pattern Recognition for the Letters of Dactyl Alphabet by Using a Novel Neural Network Simulator
Daniela Durackova, Emil Raszman (Slovakia)

17.00 – 17.20 Synthesizing Handwritten Characters Using Naturalness Learning
Ján Dolinsky, Hideyuki Takagi (Japan)

17.20 – 17.40 Trustworthiness Measurement Methodology (TMM) for Assessment Purposes
Farookh Khadeer Hussain, Omar Khadeer Hussain, Elizabeth Chang (Australia)

Saturday, October 20th

9.30 – 10.30 Plenary: Fixed Point Transformations as Simple Geometric Alternatives in Adaptive Control
József K. Tar (Hungary)

10.30 – 11.00 Coffee break

Session: Communication in Computer systems

11.00 – 11.20 The Sigmund Freud's "Pleasure Pump" as a Marvin Minsky's Emotion Machine
Jozef Kelemen (Slovakia)

11.20 – 11.40 Non-Contact Mouse Click: Augmentative and Alternative Communication Devices for Individuals with Multiple Disabilities

Riya Singh, S. Thiruthakkathevan, Anil Prabhakar, Namita Jacob (India)

11.40 – 12.00 Efficient Priority-based Hierarchical Application Layer Multicast Model

Xu Jian-zhen, Xu Mi-hua, Zhang Eu-van (China)

12.00 – 12.20 A Novel Way to Secure Communication: Large Scale IFS Approach

Slim B. Abdelbari, Yosser B. Cheikh, Jejel Ezzine

12.20 – 12.40 Multilingual CAPTCHA

M. Hassan Shirali-Shahreza, Mohammad Shirali-Shahreza (Iran)

12:40 – 13:00 An Improvement Interval Promulgate Arithmetic based on Constraint Network

Wang Da-yong, Jin Wei-dong, Hu Jiao (China)

13:00 – 14:00 Lunch break

Session: Design and Manufacturing Systems

14.00 – 14.20 Methods for Enhanced Level of Automation in Intelligent Product Modeling

László Horváth, Imre J. Rudas (Hungary)

14.20 – 14.40 The Mediator: An Artificial Actor Integrated in a Cooperative Design System

Alain-Jérôme Fougères, Victoria Ospina (France)

14.40 – 15.00 Modeling and Simulation of a Production System by Using Colored Petri Nets

Volkan Mert, Hanife Apaydin Özkan, Aydin Aybar (Turkey)

15.00 – 15.20 Robot Introduction in Human Work Environment. Developments, Challenges and Solution

Olesya Ogorodnikova (Hungary)

15.20 – 15.40 Considerations Above Operations Scheduling Intelligent System

Gabriela Prostean (Romania)

15.40 – 16.00: Coffee break

Session: Medical Applications

16.00 – 16.20 Improving Noninvasive Monitoring in Medical Care

Mihaela Costin, Octavian Baltag, Adrian Ciobanu, Cipriana Stefanescu, Doina Costandache (Romania)

16.20 – 16.40 An EEG Coherence Based Method Used for Mental Tasks Classification

Dan-Marius Dobrea, Monica-Claudia Dobrea, Mihaela Costin (Romania)

16.40 – 17.00 An EEG (Bio)Technological System for Assisting the Disabled People

Dan-Marius Dobrea, Monica-Claudia Dobrea (Romania)

17.00 – 17.20 Neural Oscillator based Control for Wrist Tremor Attenuation

Dingguo Zhang, Wei Tech Ang, Ferdinan Windjaja, Shee Cheng Yap

Sunday, October 21st

Session: Evolutionary Computing

- 9.30 – 9.50 Integrating Uncomfortable Intersection-Turns to Subjectively Optimal Route Selection Using Genetic Algorithm
Yasushi Kambayashi, Hidemi Yamachi, Yasuhiro Tsujimura, Hisashi Yamamoto (Japan)
- 9.50 – 10.10 Radiation Pattern Synthesis for Linear Arrays of Microstrip Antennas on Uniaxially Anisotropic Substrate
Warda Barkat, A. Benghalia (Algeria)
- 10.10 – 10.30 Full-Wave Analysis of Filters in Metallic Waveguides Using the Mode-Matching Method and the Genetic Algorithm
Rawdha Thabet, Mohamed L. Riabi (Algeria)
- 10.30 – 10.50 Natural Inspired Computational Intelligence Method: Saplings Growing up Algorithm
Ali Karci (Turkey)
- 10.50 – 11.10 Human Being Properties of Saplings Growing up Algorithm
Ali Karci (Turkey)
- 11.10 – 11.30 Coffee Break

Session: Concepts and Methods

- 11.30 – 11.50 Aggregation of Ordinal Information in Decision Making
János Fodor (Hungary)
- 11:50 – 12:10 Theoretical Concept of Modifiers and Hedges
József Dombi (Hungary)
- 12:10 – 12:30 On obtaining OWA operator weights: a short survey of recent developments
Robert Fullér (Hungary)
- 12:30 – 12:50 Improved Vision Based 3D Shape Measurement Method
András Rövid (Hungary), T. Hashimoto (Japan)
- 12:50 – 13:10 A feature ranking technique based on interclass separability for fuzzy modeling
Domonkos Tikk (Hungary), Kok Wai (Kevin) Wong (Australia)

Session: Other Aspects of Computational Cybernetics

- 13:10 – 13:30 Object Categorization Using VFA-generated Nodemaps and Hierarchical Temporal Memories
Ádám B. Csapó, Péter Baranyi, Domonkos Tikk (Hungary)
- 13:30 – 13:50 Inversion-based approaches to robust fault detection and isolation with applications in linear systems
András Edelmayer, József Bokor, Zoltán Szabó (Hungary)
- 13:50 – 14:10 A Simple Model of the Air Conditioning Installation of a Compartmented Railway Coach
Marius M. Balas, Valentina E. Balas (Romania)
- 14:10 – 14:30 Hints in Low Cost Solutions for Networked Control Systems
Stefan Preitl, Radu-Emil Precup (Romania), János Fodor, Márta Takács (Hungary)
- 14:30 – 14:50 Digital control system for MPM 20 engine
Ladislav Főző, Rudolf Andoga, Ladislav Madarász (Slovakia)