

# TECHNICAL PROGRAM

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June 26, 2006, Monday

- 8:00 – 16:00    REGISTRATION**
- 9:00 – 9:30    OPENING CEREMONY** **Room A**  
Chairs:    *Algirdas Pakštis*  
London Metropolitan University, United Kingdom  
*Imre J. Rudas*  
Budapest Tech, Hungary
- 9:30 – 10:15    PLENARY SESSION I** **Room A**  
Chair:    *Algirdas Pakštis*  
London Metropolitan University, United Kingdom  
**Intelligent Systems Research Centre**  
*Hassan B. Kazemian*  
United Kingdom
- 10:15 – 10:35    COFFEE BREAK**
- 10:35 – 12:15    PARALLEL SESSION** **Room A**  
**Artificial Intelligence in Engineering I**  
Chair:    *Tatiana Kalganova*  
London Metropolitan University, United Kingdom
- 10:35          Mitigating Data Gathering Obstacles within an Agile Information  
Systems Development Environment**  
*Victor Page, Maurice Dixon, Islam Choudhury*  
United Kingdom
- 10:55          Two Functional Equations in Fuzzy Preference Modelling**  
*János Fodor, Imre J. Rudas*  
Hungary
- 11:15          Semantic Web Data Integration Using F-Logic**  
*Ana Meštrović, Mirko Čubrilo*  
Croatia
- 11:35          Controlling Interstate Conflict using Neuro-fuzzy Modeling and  
Genetic Algorithms**  
*Thando Tettey, Tshilidzi Marwala*  
South Africa

- 11:55            **System Behavior Investigation Depending on FLC Parameter Choice**  
                       *Márta Takács*  
                       Hungary
- 10:35 – 12:15    **PARALLEL SESSION** **Room B**
- Systems Modeling and Simulation**
- Chair:            *Subrata K Bose*  
                           London Metropolitan University, United Kingdom
- 10:35            **Constructing a Product Model with Corporate Knowledge for the Definition of Constraints**  
                       *László Horváth, Imre J. Rudas*  
                       Hungary
- 10:55            **RFId Application in Production Process of an Auto-motive Industry Supplier**  
                       *Lajos Tóth, Petra Döbrössy, Dorottya Mánik*  
                       Hungary
- 11:15            **A Model for Target Ranging in Shallow Water and Short Ranges**  
                       *Ali Reza Hoseini Karrab, Mohammad Ali Masnadi-Shirazi*  
                       Iran
- 11:35            **Piece-Wise Linear Multi-Channel Complex Microstatistics Filters**  
                       *Dušan Kocur, Jozef Kraňák, Stanislav Marchevský*  
                       Slovakia
- 11:55            **Extending an OCL Compiler for Metamodeling and Model Transformation Systems: Unifying the Twofold Functionality**  
                       *Gergely Mezei, László Lengyel, Tihamér Levendovszky, Hassan Charaf*  
                       Hungary
- 12:15 – 14:00    **LUNCH**
- 14:00 – 16:00    **SESSION Intelligent Mechatronics** **Room A**
- Chair:            *Victor Page*  
                           London Metropolitan University, United Kingdom
- 14:00            **AC Induction Machine Observability Analysis and its Impact on Sensorless Control Algorithms**  
                       *Pavel Václavek, Petr Blaha*  
                       Czech Republic

- 14:20 **Managing Understatements in Legislation Acts when Developing Legal Ontologies**  
*Sandra Lovrenčić, Ivorka Jurenec Tomac*  
 Croatia
- 14:40 **Improved Starting of the Induction Motor Fed by a Run-Time Reconfigurable Frequency Converter**  
*József Vásárhelyi, Mária Imecs, Csaba Szabó, Ioan I. Incze*  
 Hungary, Romania
- 15:00 **Tracking Error Based On-line Trajectory Time Scaling**  
*Emese Szádeczky-Kardoss, Bálint Kiss*  
 Hungary
- 15:20 **The Algorithm for Online Stator Resistance Identification of an AC Induction Motor**  
*Petr Blaha, Pavel Vaclavek*  
 Czech Republic
- 15:40 **Modeling, Identification, and Control of Harmonic Drives for Automotive Applications**  
*László Lemmer, Bálint Kiss, István Jánosi*  
 Hungary
- 16:00 – 16:20 **COFFEE BREAK**
- 16:20 – 18:00 **PARALLEL SESSION** **Room A**
- Artificial Intelligence in Engineering II**
- Chair: *Lajos Tóth*  
 Széchenyi István University, Hungary
- 16:20 **Identification and Reconstruction of Car Body Deformation Process with Tensor Product Models**  
*István Harmati, András Rövid, László Szeidl, Péter Várlaki*  
 Hungary
- 16:40 **Proximity Based Knowledge with Evaluating Algorithm**  
*Ágnes Achs*  
 Hungary
- 17:00 **Dietary Menu Planning Using an Evolutionary Method**  
*Barbara Koroušič Seljak*  
 Slovenia
- 17:20 **Knowledge and Decision Making**  
*Dana Klimešová*  
 Czech Republic

- 17:40**      **A Method to Represent Restricted Classes of Planar Graphs in the Enhanced Spatial Relational Model PLA, Based on Halin Graphs**  
*Ágnes B. Novák, Zsolt Tuza*  
Hungary
- 16:20 – 18:00**      **PARALLEL SESSION**      **Room B**
- Computational Intelligence in Engineering I**
- Chair:      *László Horváth*  
Budapest Tech, Hungary
- 16:20**      **Dynamic Analysis and Control of a Polymerization Reaction**  
*József K. Tar, Imre J. Rudas, Kazuhiro Kosuge*  
Hungary, Japan
- 16:40**      **Automatic Linguistic Inversion of a Fuzzy Model for Fed-Batch Fermentation Control**  
*Andri Riid, Ennu Rüstern*  
Estonia
- 17:00**      **Presenting a Novel Neural Network Architecture for Membrane Protein Prediction**  
*Subrata K Bose, Hassan Kazemian, Antony Browne, Kenneth White*  
United Kingdom
- 17:20**      **Comparison of Genetic and Gradient Descent Algorithms for Determining Fuzzy Measures**  
*S. H. Alavi, J. Jassbi, Paulo J. A. Serra, Rita A. Ribeiro*  
Iran, Portugal
- 17:40**      **Unconstrained Evolution of Close-to-ideal “LCR” Low-pass Filter**  
*Yerbol Sapargaliyev, Tatiana Kalganova*  
United Kingdom
- 18:30 –**      **WELCOME RECEPTION**      **Londonmet Graduate Center**

June 27, 2006, Tuesday

- 8:00 – 16:00 REGISTRATION**
- 9:00 – 9:45 PLENARY SESSION II Room A**  
Chair: *Imre J. Rudas*  
Budapest Tech, Hungary
- Extreme Requirements for Robotics in Space Exploration and Utilization**  
*Antal K. Bejczy*  
USA
- 9:45 – 10:05 COFFEE BREAK**
- 10:05 – 12:05 SESSION Artificial Intelligence in Engineering III Room A**  
Chair: *Hassan B. Kazemian*  
London Metropolitan University, United Kingdom
- 10:05 Aggregation Operators Based Fuzzy Approximations**  
*Martina Daňková, Barnabás Bede*  
Czech Republic, Hungary
- 10:25 The Configurable Digital Cellular Neural – Hopfield Network**  
*Tamás Zeffler, Timót Hidvégi*  
Hungary
- 10:45 A Communication Model of Distributed Information Sources Bacteria Colonies Inspired**  
*Hakima Mellah, Salima Hassas, Habiba Drias*  
Algerie, France
- 11:05 Bushing Fault Detection and Diagnosis using Extension Neural Network**  
*Christina B. Vilakazi, Tshilidzi Marwala*  
South Africa
- 11:25 Feature Space Transformations in Document Clustering**  
*Kristóf Csorba, István Vajk*  
Hungary
- 11:45 Education of Mobile Robot Architecture**  
*István Matijevics*  
Hungary
- 12:05 – 13:30 LUNCH**

- 13:30 – 15:30**    **Computational Intelligence in Engineering II**                      **Room A**  
Chair:            *János Fodor*  
Budapest Tech, Hungary
- 13:30**            **Pareto Frontier Construction. A GA vs Gauss-Newton Optimization for Normalized Normal Constraint Method**  
*Miguel Martínez, Sergio García-Nieto, Javier Sanchis, Xavier Blasco*  
Spain
- 13:50**            **Non-Identifer-Based Adaptive Tracking Control for a Two-Mass System**  
*Hans Schuster, Christian Westermaier, Dierk Schröder*  
Germany
- 14:10**            **Numerical Reconstruction of the HOSVD-based Canonical Form of Polytopic Dynamic Models**  
*Péter Baranyi, László Szeidl, Péter Várlaki*  
Hungary
- 14:30**            **Motion Control of Multidegree Prosthetic Hand**  
*Jakub Žajdlík*  
Czech Republic
- 14:50**            **Sensorless Decoupling Control of Induction Motors Based on Feedback Linearization**  
*Cheng-Hung Tsai, Hung-Ching Lu*  
Taiwan
- 15:10**            **Data Policy for Intelligent Systems**  
*Tatjana Welzer, Marko Hölbl, Aida Kamišalić, Marjan Družovec, Boštjan Brumen, Hannu Jaakkola*  
Slovenia, Finland
- 15:30 – 15:50**    **COFFEE BREAK**
- 15:50 – 17:10**    **SESSION Artificial Intelligence in Engineering IV**                      **Room A**  
Chair:            *John A. Mpalika*  
London Metropolitan University, United Kingdom
- 15:50**            **Survey on Subtree Matching**  
*Péter Cserkúti, Tihamér Levendovszky, Hassan Charaf*  
Hungary
- 16:10**            **Image Recognition Study via the Neural Fuzzy System**  
*Hung-Ching Lu, Cheng-Hung Tsai*  
Taiwan

- 16:30**            **Topic Mapping: a Tool for Finding the Meaning of Internet Search Queries**  
*Domonkos Tikk, Zsolt T. Kardkovács, Zoltán Bánsághi*  
Hungary
- 16:50**            **A Practice Oriented Approach to Intelligent Computing Assisted Distance Education for Engineering**  
*Stefan Preitl, József Gáti, Gyula Kártyás*  
Romania, Hungary
- 17:10**            **SMART-Agua: a Hybrid Intelligent System for Diagnosis of Water Production Problem**  
*Leonid Sheremetov, Ildar Bathyrzin, Ana Cosultchi, Jorge Martínez-Munoz*  
Mexico
- 17:45 –**            **Bus transfer to Westminster Pier**
- 19:00 – 23:00**    **Banquet – Cruising on river Thames** (boat name is Westminster)  
*after cruising there is no bus transfer back to the hotel*

June 28, 2006, Wednesday

- 8:00 – 12:00**    **REGISTRATION**
- 9:00 – 9:45**    **PLENARY SESSION III**    **Room A**  
Chair:        *Ken Fisher*  
                     London Metropolitan University, United Kingdom  
**Cognitive Situation Management: Issues, Approaches, and Challenges**  
                     *Gabriel Jakobson*  
                     USA
- 9:45 – 10:05**    **COFFEE BREAK**
- 10:05 – 12:15**    **SESSION Communications Software and Systems**    **Room A**  
Chair:        *Gyula Mester*  
                     University of Szeged, Hungary
- 10:05**            **Client's Script Execution in Semantic Web Services**  
                     *Igor V. Toujilov, Sylvia B. Nagl*  
                     United Kingdom
- 10:25**            **Performance Factors in ASP.NET Web Applications with Limited Queue Models**  
                     *Ágnes Bogárdi-Mészöly, Tihamér Levendovszky, Hassan Charaf*  
                     Hungary
- 10:45**            **Towards Communications Network Modelling Ontology for Designers and Researchers**  
                     *Muhammad Azizur Rahman, Algirdas Pakštas, Frank Zhigang Wang*  
                     United Kingdom
- 11:05**            **A Costing Model for Estimating Costs of Interconnection Services in the Fixed Public Switched Telephone Networks with Wireless Local Loop System Based Access Networks**  
                     *John A. Mpapalika, Algirdas Pakštas, Romas Mikušauskas*  
                     United Kingdom
- 11:25**            **Network Security on the Intrusion Detection System Level**  
                     *Liberios Vokorokos, Alžbeta Kleinová, Ondrej Látka*  
                     Slovakia
- 11:55**            **Investigation of the Properties of the HEAF Estimator Using Simulation Experiments and MPEG-encoded Video Traces**  
                     *Karim Mohammed Rezaul, Algirdas Pakštas, Robert Gilchrist*  
                     United Kingdom, USA



- 12:15 – 13:30 LUNCH**
- 13:30 – 15:10 SESSION Intelligent Control Approaches Room A**  
Chair: *Vassil T. Vassilev*  
 London Metropolitan University, United Kingdom
- 13:30 Intelligent Mobile Robot Controller Design**  
*Gyula Mester*  
 Hungary
- 13:50 Towards the Development of a Problem Solver for the Monitoring and Control of Instrumentation in a Grid Environment**  
*Tatiana Kalganova, Somjet Suppharangsarn, Russell Taylor, Mujtaba Alsaif, Francesco Lelli*  
 United Kingdom, Italy
- 14:10 Error Correction in 3D Coordinate Measurement**  
*Gyula Hermann*  
 Hungary
- 14:30 System I4Control®: Contactless Control PC**  
*Marcela Fejtová, Jan Fejt, Petr Novák, Olga Štěpánková*  
 Czech Republic
- 14:50 Modeling Medium Access Control (MAC) by Quantum Methods**  
*Márton Bérces, Sándor Imre*  
 Hungary
- 15:10 Virtual Learning Aspects of Curriculum Development in Technical Teacher Training**  
*Ágnes Tóth, Pál Pentelényi, Péter Tóth*  
 Hungary
- 15:30 – CLOSING CEREMONY Room A**  
Co-Chairs: *Imre J. Rudas, Algirdas Pakštas*