

Budapest Tech Jubilee Conference (September 1-2, 2009)

<http://www.bmf.hu/conferences/jubilee130>

FINAL PROGRAM

Venue: Budapest Tech

Address: Bécsi út 96/B, H-1034 Budapest, Hungary

September 1, Tuesday

8:30 – 9:30 *Opening Ceremony* BMF Aula

Chairs: János Fodor, Imre J. Rudas, József Gáti, Tamás Németh

Conference opening

Exhibition opening

Tree planting

Keynote speeches are delivered by professors whom are newly awarded by the ‘Civitate Honoris Causa of Budapest Tech’ title, the most prestigious award of Budapest Tech.

9:30 – 10:00 *Keynote Speech I*

Neural Networks or Fuzzy Systems

Bogdan M. Wilamowski

Session chair: Imre J. Rudas

10:00 – 10:30 *Coffee Break*

10:30 – 11:00 *Keynote Speech II*

Problems of Global Supply by Primary Energy Resources

György Bárdossy

Session chair: János Fodor

11:00 – 11:30 *Keynote Speech III*

Branislav Borovac

Session chair: Antal K. Bejczy

11:30 – 13:45 *Lunch*

NIK aula

13:45 – 15:45

Parallel Sessions

Session Theoretical Issues

Room F09

Session chair: László Á. Kóczy

Pseudo-Analysis in Engineering Decision Making

Endre Pap

On Possibilistic Mean Value, Variance, Covariance and Correlation of Fuzzy Numbers

Christer Carlsson, Robert Fullér

Problems and Results in Matrix Perturbation Theory

Aurél Galántai

The New Computationalism – a Lesson from Embodied Agents

Jozef Kelemen, Alica Kelemenová

Measuring Voting Power: The Paradox of New Members vs. the Null Player Axiom

László Á. Kóczy

On Generation of Digital Fuzzy Parametric Conjunctions

Ildar Z. Batyrshin, Imre J. Rudas, Alexandra Panova

Session Control

Room F08

Session chair: Péter Gáspár

3D Nano Assembly Robotic System

Toshio Fukuda

Model-based Control Design of Integrated Vehicle Systems

Péter Gáspár

Design and Applications of Cerebellar Model Articulation Controller

Chih-Min Lin

Model-based Design Issues in Fuzzy Logic Control

Stefan Preitl, Radu-Emil Precup, Marius-Lucian Tomescu, Mircea-Bogdan Rădac, Emil M. Petriu, Claudia-Adina Dragoş

Situational Control, Modeling and Diagnostics of Large Scale Systems

Ladislav Madarász, Rudolf Andoga, Ladislav Főző, Tobiáš Lazar

Hybrid Approach in Power Electronics and Motion Control

Karel Jezernik

Quantum Control Systems

László Nádai, József Bokor

15:45 – 16:15

Coffee Break

16:15 – 17:55

Parallel Sessions

Session Applied Techniques

Room F09

Session Chair: Bernard De Baets

Distributed Detection System of Security Intrusions Based on Partially Ordered Events and Patterns

Liberios Vokorokos, Anton Baláž, Martin Chovanec

Strange Loops

Bernard De Baets

New IEC Research and Frameworks

Hideyuki Takagi

Fuzzy Immune Controller Synthesis for ABR Traffic Control in High-Speed Networks

Georgi M. Dimirovski, Yuanwei Jing, Tao Ren

Control and Dynamics of Fractional Order Systems

J. A. Tenreiro Machado, Isabel S. Jesus, Ramiro S. Barbosa, Manuel F. Silva

Session Robotics I

Room F08

Session chair: Krzysztof Kozłowski

Mobile Mini Robots for Space Applications

Peter Kopacek

Motion Control for Formation of Mobile Robots in Environment with Obstacles

Krzysztof Kozłowski, Wojciech Kowalczyk

Robot Systems for Play in Education and Therapy of Disabled Children

Gernot Kronreif

Recent Advances in Intelligent Robots at J. Stefan Institute

Jadran Lenarčič, Leon Žlajpah, Bojan Nemeč, Aleš Ude, Jan Babič, Damir Omrcen, Igor Mekjavič

Searching for Life Possibilities in the Cosmos

Antal K. Bejczy

18:00

Welcome Reception

NIK aula

September 2, Wednesday

9:00 – 10:40

Parallel Sessions

Session Information Technology I

Room F09

Session Chair: Dusan Kocur

High-Level Specification of Games

Jaak Henno

New Trends in Non-Volatile Semiconductor Memories

Zsolt J. Horváth, Péter Basa

Biometric Motion Identification Based on Motion Capture

Ryszard Klempous

Through Wall Tracking of Moving Targets by M-Sequence UWB Radar

Dušan Kocur, Jana Rovňáková, Mária Švecová

Advanced Industrial Communications

Petr Krist

Session Machines, Materials and Manufacturing I

Room F08

Session Chair: László Horváth

History and Challenges of Mechanism and Machine Science within IFToMM Community

Marco Ceccarelli

A Service-orientated Architecture for Holonic Manufacturing Control

Theodor Borangiu

Sensitivity of Power Spectral Density (PSD) Analysis for Measuring Conditions

Árpád Czifra

Numerical Prediction of Friction, Wear, Heat Generation and Lubrication in Case of Sliding Rubber Components

Tibor J. Goda

Engineering Objective-driven Product Lifecycle Management with Enhanced Human Control

László Horváth, Imre J. Rudas

10:40 – 11:00

Coffee Break

11:00 – 12:20

Parallel Sessions

Session Robotics II

Room F09

Session Chair: Claudiu Pozna

New Trends in Robotic Reinforcement Learning: Single and Multi-Robot Case

Duško Katić

Points of View on Building an Intelligent Robot

Claudiu Pozna, Radu-Emil Precup, Stefan Preitl, Fritz Troester, József K. Tar

Autonomous Locomotion of Humanoid Robots in Presence of Mobile and Immobile Obstacles

Gyula Mester, Aleksandar Rodić

Autonomous Advertising Mobile Robot for Exhibitions, Developed at BMF

Péter Kucsera

Session Intelligent Systems and Complex Processes II

Room F08

Session Chair: Annamária R. Várkonyi-Kóczy

Fine Structure Constant – A Possibilistic Approach

Péter Várlaki, Robert Fullér, Imre J. Rudas

Observer-based Iterative Fuzzy and Neural Network Model Inversion for Measurement and Control Applications

Annamária R. Várkonyi-Kóczy

Role of the Cyclodextrins in Analytical Chemistry

Zoltán Juvancz, Judit Némethné-Katona

An Intelligent GIS-based Route/Site Selection Plan of a Metro-Rail Network

András Farkas

12:20 – 14:00

Lunch

NIK aula

14:00 – 16:00

Parallel Sessions

Session Information Technology II

Room F09

Session Chair: Dezső Sima

Logical Consequences in Partial Knowledge Bases

Mirko Maleković, Mirko Čubrilo, Kornelije Rabuzin

Wireless Sensors Networks – Theory and Practice

István Matijevics

Image Processing Using Polylinear Functions on HOSVD Basis

András Rövid, László Szeidl

Intelligent Short Text Assessment in eMax

Dezső Sima, Balázs Schmuck, Sándor Szöllősi, Árpád Miklós

Determination the Basic Network Algorithms with Gains

András Bakó, Péter Földesi, István Szűts

The Role of RFID in Development of Intelligent Human Environment

Márta Seebauer

Session Intelligent Systems and Complex Processes I

Room F08

Session Chair: Márta Takács

A Comprehensive Evaluation of the Efficiency of an Integrated Biogas, Trigen, PV and Greenhouse Plant, using Digraph Theory

Nicola Pio Belfiore, Umberto Berti, Aldo Mondino, Matteo Verotti

Approximation of a Modified Traveling Salesman Problem Using Bacterial Memetic Algorithms

Márk Farkas, Péter Földesi, János Botzheim, László T. Kóczy

Towards Intelligent Systems with Incremental Learning Ability

Tomas Reiff, Peter Sinčák

Systems Engineering Approach to Sustainable Energy Supply

István Krómer

Fuzziness of Rule Outputs by the DB Operators-based Control Problems

Márta Takács

Adaptive Control Using Fixed Point Transformations for Nonlinear Integer and Fractional Order Dynamic Systems

József K. Tar, János F. Bitó

16:00 – 16:30

Coffee Break

16:30 – 17:50

Session

Session Machines, Materials and Manufacturing II

Room F09

Session Chair: Gyula Hermann

Design of a Linear Scale Calibration Machine

Gyula Hermann

In-Situ Investigation of the Growth of Low-Dimensional Structures

Ákos Nemesics

Monitoring of Heat Pumps

M. József Nyers, J. Lehel Nyers

The Nozzle's Impact on the Quality of Fabric on the Pneumatic Weaving Machine

István Patkó

17:50

Closing Ceremony

Room F09

Chair: Imre J. Rudas

18:00

Banquet

NIK aula