

November 14, Thursday

9:00 – 9:20 **Opening Ceremony**

Room Tisza Lajos

9:20 – 10:00 **Plenary Talk I**

Session chair: Imre J. Rudas

Room Tisza Lajos

37	Hamido Fujita	Data Analytics for Health-Care Risk Predictions based on Ensemble Classifiers and Subjective Projection
----	---------------	---

10:00 – 10:40 **Plenary Talk II**

Session chair: Annamária R. Várkonyi-Kóczy

Room Tisza Lajos

47	Valentina E. Balas	Advanced Computational Intelligence Methods and Practical Applications
----	--------------------	--

10:40 – 11:00 **Coffee break**

11:00 – 11:40 **Plenary Talk III**

Session chair: Levente Kovács

Room Tisza Lajos

41	George Weiss, Florian Dörfler and Yoash Levron	Two stability theorems concerning power networks
----	--	--

11:40 -12:20 **Plenary Talk IV**

Session chair: Dominik Boesl

Room Tisza Lajos

35	Tamás Haidegger	Situation Awareness: The Key to Safe Autonomous Systems
----	-----------------	---

12:20 – 14:00 **Lunch**

14:00 – 15:40 Session (T1a)**Room Lechner Lajos**

Session chair: József Dombi

18	Gergely Pap and László Tóth	A Comparison of Supervised and Semi-supervised Training Algorithms of Restricted Boltzmann Machines on Biological Data
28	Lenka Skovajsova	Comparison of Cryptography by Chaotic Neural Network and by AES
42	Sakshi Dhama and Jozsef Dombi	Preference relation and Community detection
45	László Horváth	Representations for Driving Objects in Model of Smart Engineering System
8	Razvan Cristian Marales and Stefan Preda	Demand Side Managment Electric Energy Consumption Data Processing Architectures Within Internet Of Things Context

14:00 – 15:40 Session (T1b)**Room Vedres István**

Session chair: Lőrinc Márton

33	István Zsolt Székley and Sándor Tihamér Brassai	Quadcopter control implemented on FPGA
10	László Molnár and István Módy	Quantifying spectral peaks in theta and gamma brain oscillations detected from long term Local Field Potential (LFP) recordings in mice
27	László Somai, László Molnár and József Domokos	Intelligent IoT Shelf Design and Development
11	Aron Feher, Lorinc Marton and Lehel Nagy	Testbed for Mobile Robot Platoon Control System Evaluation
16	Tamás Kardos, Dénes Nimród Kutasi and Katalin György	Control strategies for HVAC systems

15:40 – 16:00 Coffee break**16:00 – 17:40 Session (T2)****Room Lechner Lajos**

Session chair: László Bakó

1	József Dombi and Tamás Jónás	Modeling Probability Weighting Functions in Prospect Theory using a Class of Modifier Operators of Continuous-valued Logic
21	Kristijan Kuk, Misa Angeleski and Brankica Popovic	A Semi-automated generation of Entity-Relationship Diagram based on Morphosyntactic Tagging from the Requirements Written in a Serbian Natural Language

4	Monika Pogatsnik	Measuring Problem Solving Skills of Informatics and Engineering Students
25	Laszlo Bako , Geza Csernath , Laszlo Turos and Barna Csenteri	Testing and analysis of battery wear characteristics
17	Igor Astrov, Andres Udal, Andrus Pedai and Raivo Sell	Simulink/MATLAB based Comparison of Neural and Basic Tracking Control for an Autonomous Surface Vessel for Situation Awareness Applications

18:00 Welcome Reception

Room Tisza Lajos

November 15, Friday

10:00 – 10:40 Plenary Talk V

Session chair: Tamás Haidegger

Room Vedres István

48	Dominik Boesl	Disruption Cannot be Planned! On Robotics, Automation, Flying Cars and Smart Digital Solutions
----	---------------	--

10:40 – 12:20 Session (F1)

Session chair: Márton Máté

Room Vedres István

24	Bence Dávid	Extensible Highway Simulation Environment Supporting the Research of Situation Analysis and Behaviour Planning for Autonomous Vehicles
32	Márton Máté, Dénes Hollanda, Zoltán Forgó, Ferenc Tolvaly-Rosca and Erzsébet Egyed-Faluvégi	Synthesis of a Profile Errorless Involute Shaper Cutter with Cylindrical Rake Face
49	Annamária R. Várkonyi-Kóczy	
46	Jozsef Dombi and Abrar Hussain	Robust Fuzzy Control using the Type2 Distending Function
40	Edit Tóth-Laufer and Richárd Horváth	Mixed-Order Sugeno Model to Predict the Resultant Force in the Milling Process for Honeycomb Sandwich

10:40 – 12:20 Poster session

Session chair: György Eigner

23	Viera Maslej Krešňáková, Martin Sarnovský and Peter Butka	Deep learning methods for Fake News detection
29	András Ratkovics, Sándor Vass and Viktor Tihanyi	Development of an LQ regulator for longitudinal vehicle control of an automated vehicle
44	Dániel András Drexler, Árpád Takács, Tamás Dániel Nagy and Tamás Haidegger	Handover Process Modeling in Autonomous Vehicles – a Control Engineering Approach

12:20 – 14:00 Lunch**13:40 – 15:40 Session (F2a)**

Session chair: Viktor Tihanyi

Room Vedres István

12	Anna Barbara Ádám, László Kocsány, Emese Gincsiné Szádeczky-Kardoss and Viktor Tihanyi	Parking Lot Exploration Strategy
14	Viktor Remeli, Sunil Morapitiye, András Rövid and Zsolt Szalay	Towards Verifiable Specifications for Neural Networks in Autonomous Driving
15	Dávid Tollner, Hang Cao and Máté Zöldy	Artificial Intelligence Based Decision Making of Autonomous Vehicles Before Entering Roundabout
19	Ádám Domina and Ádám Bárdos	MIMO controller design for stabilizing vehicle drifting
30	Henrietta Lengyel and Zsolt Szalay	Test scenario for road sign recognition systems with special attention on traffic sign anomalies
31	László Lindenmaier and Viktor Tihanyi	Comparison of Different Tracking Approaches on Pre-Fused Data for Automotive Perception System

14:00 – 15:40 Session (F2b) PhD students special session

Session chair: László Horváth

Room Lechner Lajos

3	Árpád Varga , György Eigner and József Tar	A Simple Fixed Point Iteration-Based Digital Noise Filter for Control Applications
9	Hemza Redjimi, József Tar , Márta Takács and Abdallah Benhamida	Fuzzified Fixed Point Transformation-based Adaptive Controller for a Strongly Dynamic non-linear System
20	Róbert-Rossi Madarász and András Kelemen	Stoichiometry control of the two gas reactive sputtering process

34	Zolt Domozi, Márta Takács and András Molnár	Pool Detection with Concurrent Algorithms
43	Ádám Pintér and Sándor Szénási	Comparison of Source Code Storage Methods

15:40 – 16:00 Coffee break

15:00 – 17:00 Glamories Magic Mirror Photo Enterntainment

17:00 MFT közgyűlés

Room Lechner Lajos

18:30 Banquet