

Venue: Savoy Seychelles Resort & Spa

## April 9, Wednesday

10:00 – 10:20 **Opening Ceremony**

10:20 – 11:00 **Plenary Talk I**

Session chair: Imre J. Rudas



77	József Bokor	Design of Experiments for Learning Dynamic Models
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11:00 – 11:20 Coffee break

11:20 – 12:00 **Plenary Talk II**

Session chair: Levente Kovács

75	Chee-Kong Chui	Intelligent Robotic Assistance in Precision Surgery: Vision, Automation, and Human-Robot Collaboration
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12:00 – 13:20 Lunch

13:20 – 15:20 **[W1] Session on Cyber-Medical Systems**

Session chair: László Gulácsi

40	Peter Drotár, Juraj Gazda, Liberios Vokorokos, Máté Hireš and Peter Mesaros	Evaluating dysgraphia level using handwriting dynamics
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8	Márta Péntek, Botond Fehér and László Gulácsi	Population Norms with the Robot Anxiety Scale for Hungary
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23	Erwin Hegedüs, Anca Maxim, Marcian Mihai, Isabela Birs, Nicoleta Badau and Cristina Muresan	Towards controlled general anesthesia: A comparative study of model predictive control and fractional order control
24	Botond Fehér, László Gulácsi and Márta Péntek	Wearables and Activity Trackers Market Among University Students
25	Marianna Dimitrova Kucarov, Miklos Kozlovszky and Bela Molnar	Integration of NGS Genomic Metadata Analysis with Open-source Genomic Databases for Single Cell Tissue Samples
61	Attila Biró and László Szilágyi	Gamified AI-Driven Video Monitoring for Enhanced Rehabilitation in Performance Sports

15:20 – 15:40 Coffee break

15:40 – 17:20 [\[W2\] Session on Computational intelligence-based results of information technology](#)

Session chair: Zoltán Rajnai

76	Robert Kozma, Levente Kovács, Péter Galambos and Imre J. Rudas	Robotic Implementation of Brain-Inspired Multi-Sensory Integration and Decision Making
29	Yue Wu, Attila Nagy, Zoltan Rajnai, Beatrix Fregan and Katalin Dr. Takácsné Prof. Dr. György	Quantum Machine Learning in Crop Disease Monitoring: Opportunities and Challenges to Practical Implementation
63	Sándor Tarsoly, Artúr István Károly, Tamás Csibrák and Péter Galambos	Edge-Cloud Infrastructure for Mushroom Growth Monitoring and Analysis
64	Balázs Tusor, Annamária R. Várkonyi-Kóczy and Stefan Gubo	Information Entropy-Driven Sequential Fuzzy Indexed Search Trees for Human Activity Recognition
49	László Horváth	Integrated Representation of Research by Intelligent Content

18:00 Welcome Reception

## April 10, Thursday

9:30 – 11:10 [T1a] Session on Computational intelligence-based results of control theory and signal processing, and social systems

Session chair: László Szilágyi

41	Marcian Mihai, Emanuel Coman, Isabela Birs, Erwin Hegedüs and Cristina Muresan	Adaptive Fractional Order PI-PD Controllers applied on a DC Modular Servo System
60	Peter Kadar	A new autonomous control level in the power system
69	Szabolcs Csaholczi, Levente Kovacs and László Szilágyi	Brain Tumor Segmentation From Multi-Spectral MRI Records: Classical Machine Learning or Convolutional Neural Networks?
47	Bogdan Smolka, Milena Smolka and Damian Kusnik	Reachability Distance-Based Vector Median Filter: A Novel Method for Image Denoising
16	Luna Mohanad Al-Akhras and Andrea Tick	Navigating the AI Revolution: Employee Sentiment Analysis

10:30 – 11:10 [T1b] e-poster session

Session chairs: Ladislav Főző and Gábor Molnár

21	Kristián Sopkovič, Eva Kupcová, Daniel Hládek, Matúš Pleva and Maroš Harahus	Enhancing Slovak Natural Language Processing: Fine-Tuning Sentence BERT Models with Translated MS MARCO V2 Data Using MADLAD-400
33	Albert Nagy and Andrea Tick	Automation of Railway Operations, with a Special Focus on Artificial Intelligence Applications
39	Jean Rosemond Dora, Ladislav Hluchy and Jean Rosemond Dora	Security Review of a Client-side Code Execution with HTML Smuggling Attack
46	Volodymyr Polishchuk, Miroslav Kelemen, Peter Mésároš and Martin Kelemen	Expert-Recommendation System for Assessing and Improving Airmen's Language Skills Following International Standards
36	Martin Pollák, Adrián Vodilka and Marek Kočíško	Sorting Objects Using the Vision System of the Robot

48	Adrián Vodilka, Martin Pollák and Marek Kočiško	Design of a modular enclosed chamber for use in 3D printing
56	Ladislav Fóző, Peter Korba, Rudolf Andoga, Martin Venceľ and Peter Klamo	Fuel composition's impact on small jet engine mathematical modelling
54	Antal Ákos, Bálint Szabó, Ákos Szlávecz, Katalin Kovács, J. Geoffrey Chase and Balázs Benyó	NeuralODE-based Parameter Identification of the Three Chamber Model of the Circulatory System

11:10 – 11:30 Coffee break

11:30 – 12:00 [\[T2\] Special session on Digitalisation, Generation Research, Consumer Trends](#)

Session organizers and chairs: Mónika Garai-Fodor, Ágnes Csiszárík-Kocsir and János Varga

70	Mohammadreza Azodinia, Mohammed Mudabbiruddin, Sina Ardabili, Annamária R. Várkonyi-Kóczy, Kazizat Iskakov and Amir Mosavi	Service Life Modeling of Pavement with Ensemble Learning
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e-posters:

43	Monika Garai-Fodor and Anett Popovics	Gender analysis of corporate social responsibility and its impact on consumption
65	Anett Popovics and Monika Garai-Fodor	Conscious food shopping, getting information about food from a gender perspective
67	Gábor Sterczl and Ágnes Csiszárík-Kocsir	The importance of collaboration skills in agile workplaces
71	Ágnes Csiszárík-Kocsir, Hima Parameswaran, Oszkár Dobos, Ádám Mészáros and István Márk Tóth	Interpretation and meaning of agility in relation to individual identification with it
72	Anita Plötz and János Varga	Innovation and competitiveness: theoretical framework for interactions
73	Ágnes Csiszárík-Kocsir and Albert Molnár	The financial awareness of Hungarian enterprises in financial decision-making

12:00 – 13:20 Lunch

13:20 – 15:00 [T3] Session on Computer science

Session chair: Tamás Haidegger

31	Enikő Nagy, Petra Opitz and Tamás Haidegger	Development of an Information Database for Efficient International Freight Transport
55	Judit Szűcs, Krisztián Németh, László Dávid and Tibor Guzsvinecz	An Interactive Educational Platform for E-Sports: Development and Future Perspectives
50	Esmeralda Kadena, Marsidi Gupi, Beatrix Fregan, Aniko Horvath-Kiss, Xhezmiye Palushi and Rajnai Zoltan	From Concepts to Applications: A Comprehensive Overview of ROS
32	Attila Nagy, Rajnai Zoltan and Beatrix Fregan	Detecting Network Threats Using Deep Learning
34	Éva Karl, Enikő Nagy and György Molnár	Advanced Examination Systems: Applying Fuzzy Logic and Machine Learning Methods in Education

18:00 Banquet

**April 11, Friday**

One-day tour and farewell