INES 2022 preliminary program

Since it is a hybrid event, <u>onsite</u> and <u>online</u> participants are welcome.

Please click the link below to join online:

https://us06web.zoom.us/j/88354715548

Time zone: CEST

VENUE:

August 12, Friday

9:30 – 9:50   Opening Ceremony

9:50 – 10: 20   Celebrating the 25ᵗʰ Birthday of INES   Presentation by Imre J. Rudas

10:20 – 11:00   Plenary Talk I

    Session chair: Levente Kovács

9330	**József Bokor**	Dynamics and Control of Autonomous Vehicles

11:00 – 11:20   Coffee break

11:20 – 12:00   Plenary Talk II

    Session chair: Imre J. Rudas

8689	**Péter Galambos**	Robotics out of the Mainstream: Special Topics in Agrifood and Laboratory Automation

12:00 – 13:20   Lunch

13:20 – 15:20   [F1] Session on Artificial Intelligence in Engineering and Communications Software and Systems in Engineering

    Session chair: Peter Brida

9099	**Zrubka Zsombor, László Gulácsi and Péntek Márta**	Time to start using checklists for reporting artificial intelligence in health care and biomedical research: a rapid review of available tools
2039	**Sepideh Hassankhani Dolatabadi, Ivana Budinská, Zoltán Balogh, Ján Mojžiš and Saeid Hassankhani Dolatabadi**	Prediction of Photovoltaic Energy Production Using Machine Learning Methods in the RapidMiner Application
1629	**Bálint Szabó, Ákos Szlávecz, Katalin Kovács, Béla Paláncz, J. Geoffrey Chase and Balázs Benyó**	Increasing Patient Specificity of the Recurrent Neural Network Based Insulin Sensitivity Prediction by Transfer Learning
9492	**Renáta Nagyné Elek, Berta Mach, Kristóf Móga, Alexander Ládi and Tamás Haidegger**	Autonomous Non-Technical Surgical Skill Assessment and Workload Analysis in Laparoscopic Cholecystectomy Training
3271	**Jaroslav Janacek and Marek Kvet**	Repeated Refinement Approach to Bi-objective p-Location Problems
7659	**Jozef Papan, Juraj Dobrota, Ivana Bridova, Peter Brida, Juraj Machaj and Ondrej Krejcar**	Evaluation of Bit String Fast Reroute Mechanism

15:20 – 15:40   Coffee break

15:40 – 17:40   [F2] Session on Computational Intelligence in Engineering and Systems Engineering

Session chair: László Szilágyi

5473	**Ágnes Győrfi, Szabolcs Csaholczi, Ioan Marius Pisak Lukáts, Dénes-Fazakas Lehel, Andrea Kőble, Olga Shvets, György Eigner, Levente Kovacs and László Szilágyi**	Effect of spectral resolution on the segmentation quality of magnetic resonance imaging data
9590	**Marek Kvet and Jaroslav Janacek**	Non-dominated Set of Public Service System Designs using Simulated Annealing Approach
6261	**Peter Czimmermann**	Application of Uniformly Deployed Sets
6207	**Alon Kuperman**	On the Explicit Relation between Mains-Side Current THD and DC Link Voltage Controller Gain in Grid-Connected Converters
9446	**Bence Géza Czakó, Dániel András Drexler and Levente Kovacs**	Time-Varying Parameter Identification of a Tumor Growth Model Using Moving Horizon Estimation
5251	**Patrik Müller, Paul Christoph Gembarski and Roland Lachmayer**	Reasoning Mechanism for the Implementation of Computational Design Synthesis

18:00   Welcome reception

August 13, Saturday

9:00 – 10:40   [St1] Session on Intelligent Mechatronics and Robotics Systems, and Web Engineering

Session chair: Alon Kuperman

1066	**László Szűcs and Péter Galambos**	On the manipulability of the Generalized Triangle Parallel Delta Robots
1138	**Enikő Nagy and Ildiko Holik**	Empirical research on robot-assisted educational innovations
8076	**Marianna Dimitrova Kucarov and Miklos Kozlovszky**	Robot Instead Of Laboratory Technicians - Slide Holder Detection and 3D Position Determination by Robotic Arm
8910	**József Kuti and Péter Galambos**	A Real-life Benchmark Study on the Weights of the Symmetric Unscented Kalman-filter
4744	**Mika Saari, Petri Rantanen and Mikko Nurminen**	OSKU - an Application for Collecting User Feedback on Living Conditions in Buildings

10:40 – 11:00   Coffee break

11:00 – 13:00   [St2] Special Session on Cybersecurity and 5G Cybersecurity

Organizers and session chairs: Miklós Kozlovszky, Anna Bánáti, Zoltán Rajnai and László Nádai

1887	Yue Wu and Yuchi Liu	The security risks from the application of 5G and GPS in agriculture
2562	Haya Altaleb and Zoltán Rajnai	Decentralized autonomous organizations review, importance, and applications
6273	Huu Phuoc Dai Nguyen, Lourdes Ruiz and Rajnai Zoltán	Mobile Technology Security Concerns and NESAS as a Solution
7357	Silvana Qose and Esmeralda Kadena	Enhancing Trust in 5G

Via Zoom:

4267	Ruben Hubert, Anna Bánáti, László Erdődi and Rita Fleiner	Strengthening database security with Capture the Flag exercises
4422	Anna Bánáti, Rita Fleiner, Ernő Rigó and Eszter Kail	Use cases of attack graph for SOC optimization purpose

11:00 – 12:00   [St3P] E-poster Session

6864	Jan Hecko, Marek Penhaker, Antonino Proto, Radek Neuwirt, Otakar Jiravsky and Libor Sknouril	Electroanatomic Mapping CT/MR Fusion Models for Stereotactic Radiotherapy Targeting in Ventricular Tachycardia Treatment
2007	György Györök and Olga Shvets	Adaptive Ozone Generator with Embedded Microcontroller
8962	György Györök and Margit Makó	Novel applications of FPAAs in hybrid feedback circuits

12:20 – 14:00   Lunch

14:00 – 15:40   [St4] Session on Computational Intelligence in Engineering   Via Zoom only

Session chair: Annamária R. Várkonyi-Kóczy

2614	**Agnes Gerse and Rita Fleiner**	Data Modelling Aspects of Short-term Resource Availability Analysis of Electric Power Systems
5126	**Tamas Kersanszki, Ildiko Holik and Daniel Sanda**	Causes and possibilities of reducing student drop-out in Hungarian technical higher education
5275	**Kévin Montréer, Loïc Bienvenu, Julian Franquinet and Reggie Davidrajuh**	Modeling APAP Metabolism in Human Liver with Petri Nets
6988	**Hazem Issa and József K Tar**	On the Limitations of PSO in Cooperation with FPI-based Adaptive Control for Nonlinear Systems
8861	**Peter Kadar**	Multi Objective energy mix Optimalization

15:50 – 17:10   [St5] Special Session on Digitalisation, Generation Research, Consumer Trends   Via Zoom only

Organizers and session chairs: Mónika Garai-Fodor and Ágnes Csiszárik-Kocsir

1678	**Mónika Garai-Fodor and Ágnes Csiszárik-Kocsir**	Consumer segments according to their perception of the value of money after the coronavirus pandemic from the financial literacy aspect
6303	**János Varga, Mónika Garai-Fodor and Ágnes Csiszárik-Kocsir**	Identifying the areas affected by the pandemic based on the opinions of Hungarian SME sector
9311	**István Márk Tóth and Ágnes Csiszárik-Kocsir**	Assessing the agile approach to critical infrastructure in the light of primary research
9737	**Csaba Lentner and Sándor J. Zsarnóczai**	Sustainability and environmental conservation in strategy of National Bank of Hungary in 2020s

18:00   Banquet

August 14, Sunday

9:00 – 10:20   **[Sn1] Session on Systems Engineering**   Via Zoom only

Session chair: Péter Kádár

1808	Liberios Vokorokos, Eva Chovancová and Martin Chovanec	Smart traffic lights
4842	Melvin Ogbolu and Miklos Kozlovszky	The Associations Between HPV-infections Associated Risk Factors and Cervical Cancer Associated Risk Factors Using Chi-square Method
1977	Liberios Vokorokos, Jakub Palša and Branislav Madoš	Use of Machine Learning for COVID-19 Disease Detection
8657	Miklos Vincze, Abdallah Benhamida, Viktor Zoltan Jónás, Marianna Kucarov, Melvin Ogbolu, Róbert Paulik, Bence Biricz, Miklos Kozlovszky and Sandor Burian	Comparison of volumetric measurement methods in medicine

10:40 – 12:20   **[Sn2] Session on Artificial Intelligence in Engineering; CAD/CAM/CAE Systems; Intelligent Mechatronics and Robotics Systems; Man-Machine Systems**
                                                          Via Zoom only

Session chair: Reggie Davidrajuh

4394	Ali Salehgohari, Mina Mirhosseini, Hamed Tabrizchi and Annamaria Varkonyi Koczy	Abusive Language Detection on Social Media using Bidirectional Long-Short Term Memory
5750	Mykyta Kretinin and Giang Nguyen	Topic Modeling on News Articles using Latent Dirichlet Allocation
6787	Paul Christoph Gembarski and Pascal Giesecke	A Constraint-based in-CAD Configurator for Modular Locating Jigs
8188	Stephen Kimathi and Bela Lantos	Quaternion based attitude control of a maneuvering fixed wing UAV
5014	Cristina Luna-Jiménez, Syaheerah Lebai Lutfi, Fernando Fernández-Martínez and Andrea Tick	Measuring Trust at Zero-acquaintance: A Cross-cultural Study between Malaysians and Hungarians

12:20 – 14:00   Lunch

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Thank you for your contribution!
See you next year at INES 2023!

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