



SISY 2026

PRELIMINARY PROGRAM

IEEE 24th International Symposium on Intelligent Systems and Informatics
23–25 September 2026 | Pula, Croatia

Dress Code: Business Casual

Venue: "Dr. Mijo Mirković" Faculty of Economics and Tourism, Juraj Dobrila University of Pula | Address: Preradovićeva 1/1, 52100 Pula, Croatia



WEDNESDAY, 23 September 2026

9:00 – 9:30 **Opening Ceremony** Room Dvorana Pula

9:30 – 10:10 **Plenary 1** — Habib Zaidi | Artificial Intelligence-powered Computational Models for Theranostic Digital Twins
Session chair: Levente Kovács Room Dvorana Pula

10:10 – 10:50 **Plenary 2** — Bálint Varga | Trustworthy Human-Machine Systems: Formal Methods for Safety-by-Design
Session chair: Róbert Lovas Room Dvorana Pula

10:50 – 11:10 **Coffee Break**

11:10 – 11:50 **Plenary 3** — Emanuel Lacić | From Coding Agents to Research Agents: Context Engineering for Autonomous AI Discovery
Session chair: Darko Etinger Room Dvorana Pula

11:50 – 12:30 **Plenary 4** — Jean Barbier | Statistical physics of neural networks: From classical results to deep learning
Session chair: Péter Galambos Room Dvorana Pula

12:30 – 13:30 **Lunch** University Restaurant

13:30 – 15:30 **W1a Special Session on Women in Engineering and Intelligent Systems** Classroom 302
Session Chair: Panna Zsoldos

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| 35 | Gergely Nyilas, Rita Fleiner, Patrik Dobrovodsky and Eszter Kail | AGORA-Bench: Benchmark for Large Language Model Based Multi-Agent Systems |
| 44 | Szandra Anna Laczi and Valéria Póser | Operationalizing Child-Language Jailbreak Prompts: A Methodological Framework for Controlled Transformation and Annotation |
| 48 | Kata Egres and Sándor Szénási | A Systematic Review of Stopping Criteria in Metaheuristic Optimization Algorithms |

61	Andrea Pődör, Ourania Kounadi, Mariana Vallejo-Velázquez, Levente Dimén and Tamás Bartucz	Fear of Crime in Kecskemét: A Case Study Examining the Relationship with Patterns Across Gender and Age Group
92	Barbara Simon, Bernadett-Ildikó Balázs-Bardocz, György Eigner and Lehel Dénes-Fazakas	Domain-Specific vs. General-Purpose LLMs in Medicine: An Empirical Evaluation of MedGemma-4B
109	Maria Eugenia Cornejo Piñero, Jesús Medina, Ivana Stajner-Papuga and Andreja Tepavcevic	Migrativity of lattice-valued aggregation operators

13:30 – 15:30 **W1b Special Session on Structured Intelligence in Robotic Systems**

Classroom 303

Session Chair: Károly Széll

66	Kata Horváth, Attila Ötvös, Csaba Hajdu, Katalin Kovacs and Károly Széll	Human pose estimation for future industrial robot motion training
96	Bence Zsiga and Éva Hajnal	Towards Intelligent Human--Robot Collaboration: Recent Advances, Challenges, and Research Directions
107	Donát Magda and Katalin Kovacs	The Role of Communication Architectures in the Economic Efficiency of Robotic Systems
135	András György Györök and Péter Udvardy	Concept of a Radar-Based Collaborative Mobile Robot Localization System for Engineering Education

13:30 – 15:30 **W1c Special Session on 5G and Cybersecurity**

Classroom 402

Session Chair: Anna Bánáti & Miklós Kozlovsky

5	Saad Ezzini	Kinematic Shadows: Privacy-Aware, GPS-Free Driver Profiling via Behavioral Signal Minimization
39	Miklós Orsós and Anna Bánáti	A 5G-Native Deception Framework for Standalone Core Networks: Formal Threat and Deception Modeling
40	Lajos Olcsák, Eszter Kali, Anna Bánáti and Rita Fleiner	Hierarchical Attack Graph Framework for Infrastructure Defense
51	Imre Pardi, Valéria Póser, Anikó Szarvák and Anna Bánáti	Role- and Competence-Aware Multi-Agent User Behavior Modeling for SOC-Oriented Cyber Range Evaluation
112	Kristóf Zsombor Kövesi, Anna Bánáti and Miklós Kozlovsky	From Bytes to Behavior: A Survey of CAN Bus Analysis, Synthetic Data, and the Entity-Level Gap
120	Péter Palla and Anna Bánáti	Security of IEEE 1588 Precision Time Protocol: Attack Taxonomy, Defense Coverage Analysis, and Open Research Challenges

13:30 – 15:30 W1d Special Session on PhD Student Research in Applied Informatics

Classroom 403

Session Chair: László Horváth

8	Christoph Gritsch, Philipp Rosenberger and Andrea Tick	Evidence Requirements for AI-Assisted XML Schema Navigation: An Expert Interview Study
9	Milán Balázs, György Eigner and Bálint Babenyecz	On the Inapplicability of CloudSim and GridSim for Simulating the BlackAnt Microservice Cloud Platform
18	Vladimir Szomosi, Robert Stefko, Julius Simcak, Zsolt Conka and Zoltan Balogh	Cross-Domain Cybersecurity in Smart Grids: Fault-Tolerant Architecture and Anomaly Detection for V2G Infrastructure
22	Zhyar Kwekha Rostam and Gábor Kertész	Context-Aware Dual-Stream Cross-Attention for Sentence Classification in Biomedical Abstracts
30	István Orosz and Tamas Orosz	Workflow-Governed Automated Validation of AI Agent Task Assignments in Microsoft Dynamics 365 ERP
55	Sándor Burian, Péter Galambos and Miklos Kozlovsky	Real-time LeRobot Inference to ROS2 Cartesian Control Bridge

15:30 – 15:50 Coffee Break**15:50 – 17:30 W2a Special Session on Women in Engineering and Intelligent Systems**

Classroom 302

Session Chair: Panna Zsoldos

166	Döníz Borsos and József Katona	Experimental Evaluation of LoRa Mesh Communication for Distributed IoT Sensor Networks
168	Vanja Stepanović and Andreja Tepavčević	Matrix products enhancing similarity
170	Panna Zsoldos, Zsombor Zrubka and Péter Galambos	A Scoping Review of State-of-the-Art Industrial Use Cases, Hardware Platforms, and Reproducibility of Quadruped Robots

15:50 – 17:30 W2b Special Session on Structured Intelligence in Robotic Systems

Classroom 303

Session Chair: Károly Széll

138	András Makány and Péter Galambos	GUIDE-EX: A Declarative Execution Architecture for Hierarchical Robotic Task Execution
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142	Balint Karoly Farkas, Péter Galambos and Károly Széll	Language-Based Task Routing for Vision-Language-Action Systems
146	Adam Ragasits and Katalin Dr Kovacs	Adaptive Hybrid EKF-LSTM Framework with Magnitude-Bounded Fallback for Smartphone GNSS/IMU Sensor Fusion
150	Csaba Hajdu, Zoltán Szilágyi, Bálint Farkas, Péter Galambos and Károly Széll	A Real-Time Hypergraph Contextual Layer for Industrial Robot Control: Microsecond-Scale State Aggregation on a UR5e Grasping Task

15:50 – 17:30

W2c

Session on Intelligent Robotics

Classroom 402

Session Chair: Bálint Varga; Session Co-Chair: Enikő Nagy

124	Sadegh Refaeiabdolhosseinzadehneishabouri, Kerstin Thurow and Steffen Junginger	Configuration-Based Commissioning of Multi-Robot Traffic in Constrained Laboratory Environments
148	Rudolf Krecht, Miklós Unger, Balázs Szőnyi and Balint Varga	Teleoperation of Unmanned Ground Vehicles Using Human Foot-Based Interface
154	György Molnár, Tamas Bertalan, Anna Mária Takács, Antal Joós, Enikő Nagy and Balint Nagy	The Role of AI-Based Educational Bots and Robots in Supporting Operations Research Learning
165	Botond Pátrovics, Dávid Sik, Enikő Nagy, István Németh and Molnár György	Modern technologies and engineering teaching methods for analysing energy generation networks using intelligent chatbots and AI-based solutions
180	György Molnár Dr., Gábor Budai, Enikő Nagy, Gyula Gubán and László Kadocsa	The role of lectures, exercises and seminars in higher education in the age of artificial intelligence and intelligent chatbots

15:50 – 17:30

W2d

Special Session on PhD Student Research in Applied Informatics

Classroom 403

Session Chair: László Horváth

56	Attila Kovács, Levente Adalbert Kovács and László Szilágyi	Rendered Orthographic Views and Modality Fusion for SAC-Based Humanoid Balance
60	Marek Bobček, Július Šimčák, Vladimír Szomosi, Veljko Đurković, Zoltan Balogh and Zsolt Conka	Communication Frameworks for Nanogrid and Microgrid Environments: A Comprehensive Review of Protocols, Security, and Scalability
63	Tamás Szalárdi and Tibor Farkas	A Lightweight Methodology for Protocol-Level Security Assessment of Smart Home Connectivity Standards: A Comparative Study of Matter, Zigbee and Z-Wave
65	Anita Szappan, Patrik Dobrovodsky, Rita Fleiner, Eszter Kail and Barnabas Erdei	Knowledge Base-Driven Response Generation for Customer Support Using Artificial Intelligence

71	Péter Ákos Girgász and Peter Kadar	Topology-Aware Multi-Objective Sensor Placement for Voltage Estimation in LV Radial Feeders
85	Dávid Holecska, Judith Pálfi and Ferenc Molnár	Business models of energy communities in the European Union

15:50 – 17:30

Wp1

e-Poster Session

Session Chair: Tamás Nógrádi

Room Dvorana Pula

17	Jakub Kołota	Optimization of Collision Path Reduction for Mobile Robots Using Quantum Computing
27	Julianna Bódog and Sándor Szénási	GPU-Accelerated Texture Baking from High-Poly to Retopologized Low-Poly 3D Models Using BVH-Based Ray Tracing
36	Tamás Szőnyi and Sándor Szénási	Intelligent Optimization of Rooftop Solar Panel Placement Using Image-Based and Spatial Analysis
37	Chaimae Binjach and Sándor Szénási	Customer Churn Prediction for SMEs: A Structured Review of Modeling Methods, Business-Centric Evaluation, and Hyperparameter Optimization
69	Máté Prorok and János Varga	Natural and Artificial Intelligence in Business Decision Support: A Literature-Based Analysis of Human–AI Complementarity
94	Apor Dezső Gratzl and Sándor Szénási	Real-Time GPU-Accelerated Simulation of Fluvial Erosion and Meandering River Morphodynamics
98	Péter Pető and Ádám Pintér	Design and Implementation of a Static Source Code Analysis Framework for Legacy PHP Systems
103	Matko Glučina, Vedran Mrzljak, Nikola Anđelić, Jonatan Lerga and Sandi Ljubić	Low-False-Alarm Window-Based Framework for Operational Fine Particulate Matter Episode Warning
117	István Móni and Krisztina András	Digital Motorsport Engagement and Media Consumption Intensity in Hungary
143	Mykhailo Huk, Ján Perháč and Samuel Novotný	A Web-Based Educational System for Creating, Visualizing, and Querying First-Order Models
156	Martin Štancel, Marek Ružička and Matúš Petro	NILM-Based Energy Disaggregation and Real-Time Monitoring System for Industrial Facilities
159	Peter Klamo, Miloslav Pecinovský, Dávid Hriadel', Pavol Hudak, Peter Kaľavský, Peter Korba, Martin Vencel' and Ladislav Főző	Computational Assessment of the Lower Limit of the Outlet Diameter of a Variable Nozzle for a Laboratory Small Turbojet Engine

161	Gabriel Strakay, Ján Perháč and Samuel Novotný	Enhancing the Learning of the Curry–Howard Isomorphism Through Interactive Visualization
172	István Lovas and András Molnár	Experimental Investigation of the Relationship Between Tip Speed Ratio and Aerodynamic Braking Force in Windmilling Multirotor UAV Propellers
174	István Lovas and András Molnár	Comparison of PID-, SMC- and TSMC-Based RFPT Controllers for Robust Quadcopter Trajectory Tracking
188	Katalin Papp Fesus, László Személyi and János Varga	Similar Priorities, Different Conditions: An Importance-Performance Diagnosis of the Innovation-Relevant Business Environment in Hungary and South Korea
79	Daudi Amani Zacharia and Balázs Harangi	Lung Segmentation, Shortcut Learning, and Cross-Dataset Failure in Deep Learning-Based Tuberculosis Detection from Chest X-rays
179	Muhammad Muttaka, Leila Rzayeva, Delavar Ardavan and Aliya Kanatova	Layered Cybersecurity For Enforcing Human Control Over Autonomous AI
191	Ahsan Habib Shihab, Aman Mussa, Assel Ospan and Ardavan Delavar	Circularity-Controlled Evaluation: An Independent Assessment Methodology for AI Governance and Oversight Mechanisms
192	Bekzat Makhanbet, Madina Mansurova, Nurgul Karymsakova, Imre Felde and Mosavi Amir	Monitoring Urban Air Emissions Using an Automated AERMOD Pipeline with Satellite-Derived Surface Parameterization

18:00 – 22:00 **Welcome Reception** | Dress Code: Business Casual

Park Plaza Histria



THURSDAY, 24 September 2026

8:00 – 10:00

TOa

Session on Intelligent Mechatronics + Intelligent Manufacturing Systems

Classroom 302

Session Chair: Dominik Kratochwill



10	Mohammed Faeik Ruzaij Al-Okby, Thomas Roddelkopf and Kerstin Thurow	Multi-Sensor Environmental Event Detection Using an Embedded IoT Node
193	László Horváth	Model Driven Automation of Research for High Automation in Industry

47	Balázs Deák, Istvan Szabo and Laszlo Személyi	Digital Platforms and Innovation Orientation among innovative companies in Hungary and South Korea
114	Dominik Kratochwill and György Györök	Realization of a power-efficient spectrum analyzer with a hybrid system of a microcontroller and an FPAA

8:00 – 10:00 **T0b** **Session on Applied Mathematics**
Session Chair: József Kopják

Classroom 303

45	Paola Magillo and Lidija Comic	Edge detection in 3D images using four gradient filters
104	Aleksandar Takači, Zagorka Lozanov-Crvenkovic, Ivana Štajner-Papuga, Dragan Jočić, Tatjana Dosenovic and Gabrijela Grujić	Hypotheses testing in fuzzy surrounding: a multivariate case
126	Sándor Nagy, Gábor Nádor and József Kopják	Two-Dimensional Finite Element Redesign of a Salient-Pole Synchronous Machine with Solid Rotor into a Laminated Cage-Damper Motor
127	Martin Kalina and Fateme Kouchakinejad	Relationship between Divisible Aggregation Functions on Bounded Lattices and Order-Like Relations Induced by those Operations

8:00 – 10:00 **T0c** **Special Session on PhD Student Research in Applied Informatics**
Session Chair: László Horváth

Classroom 402

81	Ervin Szabolcs Murvai, Krisztián Hriczó and Attila Károly Varga	Human-Centric Predictive Control of Hybrid HVAC Systems Using Physics-Informed, Context-Aware Graph Attention Networks
90	Aimen Tanougast and Krisztian Hriczó	Analysis of boundary layer flow along a rotating disk with a rough surface
88	Attila Biró, Martin Turcsányi and László Szilágyi	Fuzzy Semantic Recovery for Multilingual OCR in Self-Healing Testing Pipelines
89	István Orosz and Tamas Orosz	KPI-Based Evaluation of PIM-Guided Code Reusability Decisions in SaaS ERP Migration
93	Csaba Arendas, Tamás Haidegger and Zsombor Zrubka	A Scoping Review Protocol for Venture Capital Investment Performance Research
101	Mihaly Szabo, Attila Kövari and Gabor Kertész	Traceable Ablation of Packing-Inspired Geometric Priors in License-Plate Optical Character Recognition Segmentation

8:00 – 10:00

T0d

Session on Computational Intelligence

Session Chair: Amir Mosavi

Classroom 403

7	Marc Favier, Xinxin Liao, Paolo Germano and Yves Perriard	Towards Explainable AI in Tribology: Unveiling Friction History Dependencies With Transformers
29	Ahmed Al-Ashoor, Ferenc Lilik and Szilvia Nagy	Assessing the Effect of Dataset Structural Variability on YOLO-Based Brain Tumor Detection in MRI Images
31	Bence Jekl, Dániel Fényes and Balázs Németh	Motion Prediction of Vulnerable Road Users at Signalized Intersections Using Lightweight Feed-Forward Neural Networks
52	Milana Petkovic and Marko Arsenovic	Spectral Input Analysis for Water Segmentation with U-Net: Generalization Across Sentinel-Based Datasets
54	Attila Kantó, Sándor Szénási and Attila Csaba Marosi	Bridging the Asymmetry Gap: A Threshold Model for Hybrid Cloud GPU Offloading
62	Jozsef Kovacs, Mónika Garai-Fodor and Bálint Kovács	Sensitivity Analysis of a Fuzzy Logic-Based NFL Viewership Model: Crisp Output Behavior and Practical Implications for Broadcast Decision Making

10:00 – 10:20

Coffee Break

10:20 – 12:00

T1a

Session on Informatics

Session Chair: Anca Mihai

Classroom 302

4	Katarina Kostelić and Mieta Bobanovic Dasko	Mapping Workplace Cyberbullying in Digital Work Environments: Toward an Organizational Perspective
6	Darko Etinger and Dejana Pivac	Simulating the Long-Term Impact of Dark Patterns on User Trust: A Network-Based Agent-Based Model
14	Anca Mihai and Adrian Groza	Explainable Fundus Image Curation and Lesion Detection in Diabetic Retinopathy
19	Daniel Šolc, Dušan Čatloch and Eva Chovancová	Machine Learning-Based Detection of DDoS, Brute-Force and Web Attacks: A Leakage-Aware Evaluation on CIC-IDS-2017 and CSE-CIC-IDS2018
20	Dániel Edmond Tóth-Szegó and Zoltán Vámosy	Creating Marquetry from a Photo with Utilizing Given Veneers
24	Gabriela Kralj Bartovčak, Marija Dušek and Mario Tomiša	Generative Artificial Intelligence in Secondary Education: Educational Value, Motivation, and Ethical Perceptions of Students

10:20 – 12:00

T1b

Session on Informatics

Session Chair: Darko Etinger

Classroom 303

25	Marija Dušek, Gabriela Kralj Bartovčak and Domagoj Frank	More Knowledge, More Use? The Relationship Between Self-Assessed Knowledge and Generative AI Use Among Students
28	Nikolina Topolko, Biljana Marković and Jelena Blaži	A Data-Driven Model of Digital Adaptation in Selected Digitally Visible Croatian Museums
32	Kinga Kovács, Áron Visky, Csaba Sulyok, Nándor Bándi, Hunor Szimma, Kristóf-Bálint Nagy and Mátyás Fosztó	A Holistic Event Management System with an Extensible Plugin Architecture
41	Tibor Guzsvinecz, Krisztián Németh and Judit Szűcs	Acute and Accommodated Emotional Profiles in Cybersickness-Related First-Person Virtual Reality Game Reviews
42	Miklós Sipos and András Kovács	AI-Assisted Multi-Source Decision Support Framework for Evaluating Developer Teamwork from Repositories, Meeting Transcripts, and Peer Feedback
43	Bálint Bódi and Miklós Sipos	Baseline-Normalized Deception Cue Detection from Facial Action Units in Short Video Responses

10:20 – 12:00

T1c

Special Session on PhD Student Research in Applied Informatics

Session Chair: Márta Takács

Classroom 402

113	Sandor Tarsoly, Artur Istvan Karoly and Peter Galambos	Traning Data Diversification for Robust Mushroom Detection Throughout the Cultivation Cycle
118	Mustafa Elkomy, Erick Noboa, Malgorzata Verone Wojtaszek and György Eigner	TimescaleDB with PostGIS versus MongoDB for Agricultural Database Workloads
121	Bettina Miklos, Janos Kontos and Agnes Vathy-Fogarassy	Uncertainty-Aware Self-Attention-Based Virtual Sensing for Yaw-Rate Prediction under Driving Scenario Shifts
133	Wendler Márk, Robin Meisinger and József Kopják	Acquisition-Time Limited Modulation in Single-Shunt Current Reconstruction for PMSM FOC
136	Roland Szand, Márta Takács, József Kopják and Gergely Sebestyén	Sugeno Fuzzy-Based RF Electrode–Tissue Interaction Stability Index for Constant-Voltage Point-Wise RF Tissue Sampling
106	Ármin Károly and Péter Galambos	Online Geometric Parameter Identification for Robot Manipulators via Diversity-Driven Adaptive Particle Swarm Optimization

10:20 – 12:00 **T1d** **Session on Computational Intelligence**

Classroom 403

Session Chair: Amir Mosavi

70	Teodor Fucek and Ivan Polasek	Supporting Software Comprehension with Agentic AI and UML Visualizations
78	Áron Lóránd, Annamária R. Várkonyi-Kóczy and Ágota Drégelyi-Kiss	Advanced Fuzzy-Based Surface Determination Method for Dimensional Analysis of Aluminum Alloy Components in Industrial Computed Tomography
100	Lucija Žužić and Jonatan Lerga	Reevaluating Battery State of Health Prediction Using Attention and Boosting
105	Anai Pučić, Igor Marković and Ivan Lorencin	Smart Crosswalk Control Using OWL-ViT-Based Pedestrian Detection

12:20 – 13:20 **Lunch**

University Restaurant

13:20 – 14:30 **T2a** **Session on Informatics**

Classroom 302

Session Chair: Igor Marković

46	Sandi Baressi Šegota, Igor Poljak, Darin Majnarić, Maro Jelić, Nikola Anđelić and Vedran Mrzljak	Usage of LLMs in Identifying Incident Factors in Maritime Incident Reports
50	Norbert Pál, Szilamér Angi, Levente-Zoltán Bartus, Tas Szakács and Károly Simon	Hands-free Apiary Management System using Voice Recognition and Semantic Parsing
53	Enikő András, Boróka Oltean-Péter, Roland-Mihály Magyarosi and Bence Kiss	Gaspulse: Fuel Price Forecasting and Data Collection Web Application
58	Najeeb Albate and Andrea Tick	A Bibliometric Analysis of Questionnaire-Based Digital Literacy Research: Trends, Influential Contributors, and Emerging Themes
59	Najeeb Albate and Andrea Tick	Mapping Questionnaire-Based Media Literacy Research: A Bibliometric Analysis of Trends, Influence, and Emerging Themes
77	Norbert-Levente Czerják, Norbert Veres, Károly Simon, Szabolcs Balogh and Hunor Hegedüs	Privacy-Oriented Health Event Diary and Treatment Tracking Application for Caregiver-Centered Health Management

13:20 – 14:30

T2b

Session on Informatics

Session Chair: Darko Etinger

Classroom 303

87	Samuel Balucha and Lukáš Radoský	Exploiting conceptual dictionary for semantic textual similarity of Slovak texts
95	Petra Grd	A Two-Dimensional Taxonomy of Bias in Biometric Systems: Separating Sources from Manifestations
97	Igor Tomicic, Petra Grd and Andrija Bernik	A Reference Model for AI-Assisted Information Security GRC: Roles, Control Gates, and Oversight for Enterprise Adoption
102	Antonio Labinjan and Nikola Tanković	Real-Time Training-Free Multimodal Identity Verification using Biometric Temporal Score Fusion
125	Krisztián Póra, Róbert Lovas and Attila Csaba Marosi	Approximate Edge-Server Placement Evaluation for Cyber-Physical Urban Rail Systems
128	Albert Mráz	Effects of NB-IoT Deployment on the Performance of LTE DL User Data Transmission

13:20 – 14:30

T2c

Special Session on PhD Student Research in Applied Informatics

Session Chair: László Horváth

Classroom 402

162	Vivien Roxána Patakvolgyi	An Affinity Matrix Based Approach for Temporal Correspondence Analysis in Multimodal Biosignals
169	István Szűcs and József Kopják	Comparative Performance Analysis of Classification and Regression Models for EV Charging Behavior Prediction
173	Attila Biró, Levente Kovacs and László Szilágyi	Coverage-Controlled Dynamic Voronoi Analysis for Tactical Space Optimization and Lineup Evaluation in Team Sports
181	Máté Szabolcs Józsa and Balázs Gáspár	Comparative Analysis of Proximal Policy Optimization and Soft Actor-Critic Algorithms in a Procedurally Generated Dynamic Environment
149	Tamás Piricz, Márta Takács and Péter Galambos	Effective Exploration for Reinforcement Learning via LLM-generated Fuzzy Rules

13:20 – 14:30

T2d

Session on Computational Intelligence

Session Chair: Anca Adriana Petcut-Lasc

Classroom 403

122	Azar Mamiyev, Kornélia Lazányi and Eszter Kail	When Perfect Is Wrong: Auditing Link-Stealing Attacks on Federated Graph Neural Networks
139	Yue Wu, Attila Nagy, Zoltan Rajnai, Beatrix Fregan, István Takács and Katalin Takács-György	5G-Enabled Smart Agriculture: Security Risks and Tiered Digital Education Framework Based on Dynamic Farmer Risk Perception
153	Attila Farkas, Mátyás Nagy and Gábor Kertész	Distributed GraphSAGE Training with DistDGL: A Multi-GPU Scalability Study
171	Martin Ferenc Dömény, Melánia Puskás, Levente Kovacs and Dániel András Drexler	Comparing Adaptive Differential Evolution and Genetic Algorithm in Chemotherapy Optimization
189	Anca-Adriana Petcut-Lasc, Flavius-Maxim Petcut and Valentina Emilia Balas	Optimal Day-Ahead Dispatch of a Hybrid Floating-Photovoltaic and Hydropower Plant: A Comparative Study of Metaheuristic Algorithms

15:20 – 15:40

Coffee Break

15:40 – 17:00

T3a

Session on Informatics

Session Chair: László Szilágyi

Classroom 302

131	Botond Horváth, Miklós Vincze, Balázs Dr. Tusor, Zsuzsanna Simon, Zalán Miller, Kruti Shah, Sándor Burian and Miklós Dr. Kozlovsky	Development of a test environment for wildfire simulation software
132	Zalán Miller, Botond Horváth, Zsuzsanna Simon, Kruti Shah, Sándor Burian, Miklós Vincze and Dr. Miklós Kozlovsky	A Reinforcement Learning Decision Support Module for Firefighting Resource Allocation in Wildfire Simulation
140	Zsuzsanna Simon, Botond Horváth, Zalán Miller, Miklós Vincze, Sándor Burian, Kruti Shah and Dr. Miklós Kozlovsky	Fire Spread Modeling and Simulation Under Varying Environmental Parameters Using Fuzzy Logic
141	Mátyás Erdődi, Boróka Oltean-Péter, Endre Györfi and Krisztián Koncsag	AI-Based Automatic Lesson and Quiz Generation from User-Provided Educational Content in Mobile Learning Systems

15:40 – 17:40 **T3b** **Session on Informatics**
Session Chair: Snježana Babić

Classroom 303

157	Miklós Vincze, Sándor Burian and Dr. Miklós Kozlovsky	Multimodal 3D medical image fusion: Joint spatial visualization of CT, MRI, and pathological serial sections
160	Ivana Kovačević, Milan Stojkov and Goran Sladić	SABAC: Secure Attribute-based access control framework based on multi-party computation
163	Márk Emődi, Róbert Lovas and József Kovács	From Service Meshes to MPI: Sidecar-Free Observability with PMPI and eBPF
164	Szilvia Nagy, Brigita Sziová, Melinda Kovács and Nadja Nebbou	On Reconstruction of Continuous Thigh MRI Volumes from Multi-Stack Acquisitions Using Multi-Criteria Overlap Confidence Estimation
177	Goran Bubaš and Andreja Kovačić	The Use of LLMs In English Literature Education: AI-Assisted Generating of an Elizabethan-Style Theatre Play Using ChatGPT and Claude Sonnet
190	Snježana Babić and Tomislav Bičanić	Croatian Users' Perceptions of Privacy and Security in Google Street View

15:40 – 16:40 **T3c** **Session on Informatics and Computational Intelligence**
Session Chair: József Kopják

Classroom 402

83	Vivien Leuba, Noémi Piricz and Máté Prorok	A Systematic Review of Emerging AI Technologies in Healthcare Supply Chains: Toward a Conceptual Taxonomy
144	Konrád Bánfi and Márk Emődi	Towards a Maintainable Multi-Tenant SLURM PaaS for Scientific Clouds
155	Boglárka Nagy and Annamária Szenkovits	Explaining BERT: A Case Study of Sentiment Classification Using Attention and Attribution Methods
187	Bekim Fetaji, Majlinda Fetaji, Mirlinda Ebibi, Zoran Trifunov, Vladimir Kitanovski and Edon Fetaji	Hybrid Recommendation Systems for Student–Employer Matchmaking: Combining Collaborative Filtering and Semantic NLP

18:00 – 22:00 **Gala Dinner & Best Paper Award Ceremony** | Dress Code: Business Casual

Grand Hotel Brioni



FRIDAY, 25 September 2026

Social Program

One-Day Tour — Brijuni National Park Excursion

Gathering, departure time & meeting point: information coming soon — stay tuned!

** This is a PRELIMINARY PROGRAM — schedule and details subject to change.*

Dress Code: Business Casual

Venue:

"Dr. Mijo Mirković" Faculty of Economics and Tourism,
Juraj Dobrila University of Pula

Address

Preradovićeve 1/1, 52100 Pula, Croatia

