4th Conference on Sustainability (COS2026) - Session schedule

10.11.2026 Tuesday AM

Session 1 - Sustainability and transportation I. 9:40-10:40 **room MC02**

Chair: Dr. Petra Szakonyi

1	Melinda Hajdu-Smahó	Measuring Cities' Readiness for Accepting Autonomous Vehicles. What Is Missing from the Literature?
2	Ferenc Tajti	Sustainable Adhesive Innovations for EV Applications
3	Matthew Boota	The Role of Agentic AI in Sustainable Transportation Supply Chains: A Systematic Review, Framework, and Case Study Analysis

Session 2 - Built environment 9:40-10:40 **room M123**

Chair: Dr. János Szép

1	Gergely Ámon	Quantifying habitat provision and water-related activities of large-scale floodplain restoration using the River Ecosystem Service Index (RESI) in the Szigetköz-Danube, Hungary
2	Orsolya Farkas	Characteristics of User-Friendly and Sustainable Playgrounds in Light of Expectations, Preferences, and Community Engagement
3	Sugdiyona Jurajonova	From Industrial Heritage to Contemporary Use: An Architectural Assessment Model for Adaptive Reuse in Győr, Hungary

Session 3 - Sustainability in agriculture & food engineering 9:40-10:40 **room MC01**

Chair: Prof. Dr. Attila Péter Kiss

1	Judit Makkos-Káldi	Financial Growth Capacity of Hungarian Corporate Agricultural Enterprises Before and During the Polycrisis, 2019–2024
2	László Moldvai	From Pixels to GPS: Georeferencing UAV-Based Weed Detections for Precision Agriculture
3	Babett Greff	Evaluation of lactic acid bacteria as natural biopreservatives in a chia seed-based coating matrix against foodborne pathogens

Session 4 - Sustainability and law & political science 9:40-10:40 **room MC227**

Chair: Prof. Péter Smuk

1	Zeynep Begüm Gökçek	The Concept of "Green Default" in Sustainable Debt Instruments and Its Place in Enforcement Law
2	Güzide Irem Can	Remedies for breach of sustainability clauses in contract law
3	Éva Rampasek	The 2024–2025 Court of Justice of the European Union Wolf Trilogy: A Sustainability Paradigm Shift in EU Biodiversity Law and Its Hungarian Implementation

Session 5 - Sustainability and transportation II. 11:00-12:00 **room MC02**

Chair: Dr. László Jóna

1	Marco Nyári	Investigation of Magnetic Material Property Changes Caused by Machining from a Sustainable Electric Drive Design Perspective
2	Antónia Payer	Assessing Sustainable Mobility Services in Smart Cities
3	Botond Ákos Mecséri	Structural Limits to Electrification Payoff: A Unified Break-Even Framework for National Passenger Vehicle Fleets
4	Noémi Szabó	Driving Sustainable Mobility: Consumer Behaviour and Engineering Insights in Electric Vehicle Adoption by a Mixed-method Approach

Session 6 - Environmental management 11:00-12:00 **room MC123**

Chair: Dr. Eszter Kókai

1	Attila Kálmán	Operational CO2 emission of diesel-pump and gravity-fed water replenishment system in Szigetköz, Hungary
2	Richard Bodó	Comparative Assessment of Carbon Dioxide Utilisation Pathways through a Multi-Criteria Strategic Assessment Approach
3	Pasquale Marcello Falcone	Beyond waste valorization: Environmental justice and circular energy transitions in Brazil's semi-arid region

Session 7 - Sustainability in agriculture & food engineering 11:00-12:00 **room MC01**

Chair: Prof. Dr. Attila Péter Kiss

1	Jenő Balla	Circular Economy in Practice: Waste-Heat Recovery and Digestate Briquetting at the Hajdúböszörmény Biogas Plant
2	Babett Greff	Nitrogen and phosphorus recovery using innovative technology in soft cheese production: Preliminary results from the NENUPHAR Project
3	Éva Rampasek	Computer Vision for Sustainable Cage-Free Egg Production: Aligning Deep-Learning-Based Welfare Monitoring with European Union Policy

Session 8 - Sustainability in health 11:00-12:00 **room MC227**

Chair: Prof. Szilvia Boros

1	Rita Vas-Barna	Health tourism as a therapeutic ecosystem: the relationship between balneotherapy and musculoskeletal disorders
2	Pálma Porrogi	Personalized Medicine for a Greener Pharmaceutical Sector: A Pharmacogenomics- Based Framework for Sustainable Prescribing

10.11.2026 Tuesday PM

Session 9 - Sustainable living 13:40-14:40 **room MC227**

Chair: Dr. Júlia Szőke

1	Csongor Czipf	Energy literacy among Hungarian and Mexical students
2	Judit Emma Boda-Ujlaky	Indoor and outdoor leisure time physical activity: differences in emotional experience and motivation
3	Boglárka Barsi & Andrea Uszkai	Permaculture as a Source of Subjective Well-Being and a Post-Growth Development Path in Central Europe – The Case of Hungary

Session 10 - Sustainability in Engineering & IT 13:40-15:00 **room MC02**

Chair: Dr. Jean Pimentel

1	Botond Bertók	Optimal batch production scheduling for mixed intermediate storage policies by P-graph algorithms
2	Csaba Hajdu	Towards resource efficient neural networks: Nagare framework
3	Nurullah Bektas	Towards Resource-Efficient Structural Assessment: A Machine Learning Approach to FRP-Strengthened RC Beam Life-Extension
4	Szonja Panna Sipos	Integrated Synthesis of Process Separation and Heat Exchanger Networks by Conventional P-graph Algorithms

Session 11 - Sustainability and social sciences 13:40-15:20 **room MC01**

Chair: Prof. Lívia Ablonczyné Mihályka

1	Ágnes Kovács	The Hidden Conflicts of Urban Climate Adaptation: Evidence from Budapest's Erzsébetváros District
2	Csilla Pótáné Dallos	Regional access conditions for AI-supported career guidance in Hungary: Implications for social sustainability
3	Fanni Csikós	University Knowledge Transfer and Commercialisation
4	Gábor Pék	Determinants of E-scooter Usage Intentions and Behavior within Sustainable Urban Transport Systems
5	Grazia Errichiello	What Drives Circular Economy Behavioral Intentions in Europe? Evidence from Microdata

11.11.2026 Wednesday AM

Session 12 - Sustainability and economics 9:40-10:40 **room MC228**

Chair: Dr. Judit Petra Koltai

1	Zoltán Bugovics	The sustainability of the Hungarian insurance sector from the period of market liberalisation to the challenges of digitalisation
2	Peggi Palasics	From Twin Transition to Twin Transformation: A Firm-Level Concept for the Construction Industry
3	Péter Mesterházy	AI-Supported Customer Service Process Optimization: A Sustainability Perspective

Session 13 - Sustainability and social sciences 9:40-11:00 **room MC227**

Chair: Prof. Lívia Ablonczyné Mihályka

1	Sanjida Khanom	Gendered Impacts of Climate-Induced Displacement in Bangladesh
2	Petra Kecskés	Beyond direct effects: a review of work arrangements, employee engagement and social sustainability
3	Erzsébet Hegyi	Cultural sustainability at risk: the erosion of community norms in Hungarian equestrianism
4	Boglárka Domján	Consumer Awareness and Sensitivity to Greenwashing

Session 14 - Sustainability in Engineering & IT 9:40-10:40 **room MC123**

Chair: Dr. Boldizsár Tüű-Szabó

1	Botond Bertók	Trajectory Optimization for Energy Efficient Free Navigation of Automated Guided Vehicles
2	Csaba Hajdu	Comparison of Human-Robot interaction aspects in Japanese and Hungarian populations based on the visual appearance of robots
3	László Környei	Random-Forest Estimation of Hourly NO2 from NOx in Győr

Session 15 - Sustainability in agriculture & food engineering 9:40-10:40 **room MC01**

Chair: Porf. László Amand Palkovics

1	Judit Makkos-Káldi	From Efficiency to Resilience: Redefining Farm Management for Sustainable Agriculture
2	Pavithra Hemachandra	Sustainable Analytical Methods for Heavy Metal Determination in Fruit Juices
3	Károly Kalauz	Optimal Resource Scheduling for Energy–Water Management in Agrivoltaic Systems

Session 16 - Sustainability in agriculture & food engineering 11:00-12:00 **room MC01**

Chair: Prof. László Amand Palkovics

1	Miklós Posgay	Antimicrobial potential of essential oils against Escherichia coli, Salmonella Typhimurium, and Staphylococcus aureus in pork sausages
2	Abo Alemayehu Adinew	Response of Summer Barley (Hordeum vulgare L.) to Nitrogen Fertilizer Rates and Varieties in Central Ethiopia
3	Judit Makkos-Káldi	Consumer Perception of Functional and Organic Foods from a Sustainability Perspective: A Systematic Literature Review

11.11.2026 Wednesday PM

Session 17 - Sustainability in Engineering & IT 13:40-14:40 **room MC01**

Chair: Dr. Botond Bertók

1	Ahmed Ibrahim	Dynamic Behavior-Driven Filtering Architecture for Mitigating HTTP Flood Attacks: Design and Simulation Study
2	Mahmoud Ahmad	A Multi-Method Framework for Understanding and Predicting Groundwater-Level Dynamics in the Al-Hsain Coastal Aquifer, Syria
3	László Környei	MPI-Parallel SVD-Based Compression of a One-Year Urban NOx Dispersion Simulation

Session 18 - Sustainability and transportation 13:40-14:40 **room MC123**

Chair: Dr. Adrián Horváth

1	Patrik Eszes	Integrating Demand Responsive Transportation into the Smart City Ecosystem: Opportunities for Sustainable and Efficient Urban Mobility
2	Sanjida Khanom	Understanding the Growth of Last-Mile Delivery Research: A Systematic Review and Bibliometric Study
3	Anna Szaniszló	Logistics Infrastructure and Teenagers' Attitudes Toward Waste Collection in the School-Home Environment