

SECTION PROGRAMME

COS'23 Conference

Sustainability and Economics section, Slot session 1 – Friday 10:45 -13:00

Section Chair: Dr. Sándor Remsei

Section Secretary: Dr. Gabriella Imre

Location: MC001

Factors of responsible and sustainable entrepreneurial behaviour: Empirical findings from Hungary	Dr. Szennay
Mediating and moderating factors of sustainability innovation and competitiveness of companies	Dr. Dőry
How the categorisation of SDG targets into ESG pillars informs the corporate SDG report	Mr. Lukács
Results and further proposals of basic research in floating plastic waste detecting on offsets of river Tisza, Hungary	Dr. Elo
Disruptive proposal to fill one gap in waste collection in Hungary regarding to plastic recycling	Dr. Elo
Sustainability of Large AI Models: Balancing Environmental and Social Impact with Technological Advancements	Dr. Elo
The Role of Blockchain and IoT in Reverse Logistics: The Impacts on the Environmental and Economical Sustainability – a Structured Literature Review	Ms. Almelhem
A Big Data Approach to Improve Productivity and Sustainability in the Clothing Manufacturing Industry: Case Study from Bangladesh	Mr. Md Al Mamun
Sustainability Model of ZalaZONE Innovation Ecosystem	Dr. Meszaros

Sustainability and Economics section, Slot session 2 – Friday 14:45-16:30

Section Chair: Dr. Sándor Remsei

Section Secretary: Gabriella Imre

Location: MC001

Sustainability factors of cultural and creative industries - The case study of a creative city, Budapest	Dr. Gombos
Product related values and sustainability - deeper understanding of the Millennials	Dr. Kurucz
Cultural Impact on Environmental Sustainability Practices: A Comparative Study Using Hofstede's Cultural Dimensions	Ms. Zaher
Capacity expansion for sustainable development in family businesses – striving for recyclable packaging materials in the Hungarian food industry	Ms. Nemes
Hungarian Battery Production - Analysis from the Perspective of the Labor Market and the Environmental Protection	Ms. Jenei
Green generation(s): the generational peculiarities of the environmental attitude	Dr. Gyurián Nagy
Consumers' Perceptions of Environmental Protection and Exploring Pathways to Sustainable Solutions	Dr. Gyurián Nagy

Sustainability and economics section, Slot session 3 – Friday 17:00-18:45

Section Chair: Dr. Attila Kurucz

Section Secretary: Marah Almelhem

Location: MC001

Towards Sustainability in the Automotive Industry – Circular Economic Practices of the Audi Group	Dr. Imre
Human resource assessment and sustainability	Dr. Szabó
Green thinking - green positions	Dr. Szabó
Circular Concepts and Values: Will Reuse Become Fashionable?	Mr. Farkas-Kis
Sustainability in Place Marketing	Dr. Remsei
Are corporate energy saving measures effective? - Lessons from a small sample analysis in Hungary	Dr. Szemerédi
Optimized Implementation of Nature-based Solutions for Sustainable Economic Benefits in a Watershed with Water Deficit – a Case Study in Hilly Settlements of Lake Velence	Mr. Kalman

Sustainability and economics section, Slot session 4 – Saturday 9:40-11:55

Section Chair: Dr. PhD Adrienn Dernóczi-Polyák

Section Secretary: Alex Suta

Location: MC001

Sustainable tax policy for sustainable development	Dr. Limpók
The Assessment of Economic Performance in the Sustainability Reports of Financial Institutions	Dr. Vargáné Kiss
The statistical background of overspending behaviour in Hungarian families	Ms. Vastag
Cognitive biases in purchasing decision making process with a focus on sustainable consumption-eye tracer experiment	Dr. Eisinger Balassa
BIOGAS PRODUCTION as a SUSTAINABLE CIRCULAR ECONOMY SOLUTION in the LINEAR, LIMITED SUPPLY CHAIN SYSTEM	Mr. Csiba
Overview of XBRL Taxonomy Usage for Structured Sustainability Reporting in European Filings	Mr. Suta
Crossing sustainable development and financial development: the theoretical framework of sustainable financial development	Mr. Szalai
Culture of Nationalities in a Creative and Sustainable City	Mr. Horváth
The limitation of manufacturer's sustainability efficiency due to the taxation and economic factors in the rollback of the deposit fee system	Mr. Hima

Sustainability and Engineering & IT section, Slot session 1 Friday 10:45-13:00

Section Chair: Dr. András Torma

Section Secretary: Dr. Judit Pécsinger

Location: MC002

Numerical Examination of a Forest Area Fire	Dr. Hajdu
Analysis of Human-Robot Interactions as a Sustainability Factor	Mr. Hajdu
The Dissonances of Asbestos Exposure and the Concept of Sustainable Settlements in the Focus of the European Union's 2023 Asbestos Neutrality Objective	Mr. Macher
Sustainable Groundwater Supply: Investigation of Drip Water at Jósvafő, Hungary	Ms. Bódi
The Analysis of Life-Cycle and Multi-Criteria Decision-Making For Two-Generation High-Strength Recycled Aggregate Concrete	Mr. Shmls
Effect of Injection Molding Parameters on the Chemical Foaming of Acrylonitrile Butadiene Styrene (ABS) Using Breathing Mold Technology	Mr. Jakab
Sustainability Approach of SAP Application Management Service Solutions in the Field of Warehouse Management	Dr. Erdős
Ecological footprint analysis of tramway track structures	Dr. Szennay
"Green" tram tracks for the sustainability of the urban environment	Dr. Major

Sustainability and Engineering & IT section, Slot session 2 Friday 14:45-16:30

Section Chair: Dr. habil. Balázs Horváth

Section Secretary: Viktor Nagy

Location: MC002

The impact of rail-wheel contact on the useful life of rails	Dr. Horvát
Investigation of the Environmental Safety Risks of Biodegradable and Compostable Polymers as sources of Microplastics in the light of the Effects on the Water-Soil Continuum	Ms. Horváth
The Effect of the Dam-Building Activity of the Eurasian Beaver (Castor fiber) on Changes in the Soil Moisture Conditions and Vegetation Associations of the Beaver Meadows in the Valley of Ablánc-Stream	Mr. Macher
The impact of cement aggregates on the fire resistance properties of concrete and its ecological footprint	Dr. Szép
Investigating the ecological footprint of deep mixing and exploring ways to achieve optimization	Dr. Koch
Integrated Analysis and Assessment of the Hungarian Regions in Terms of Health Problems and Waste Management Challenges caused by Asbestos.	Mr. Macher
Theoretical investigation of the effect of changes in some geometrical parameters from the point of view of the energetic behavior of the roller gearing gearbox	Dr. Polák

Sustainability and Engineering & IT section, Slot session 3 Friday 17:00-18:45

Section Chair: Prof. Dr. Gábor Dogossy

Section Secretary: Norbert Hegyi

Location: MC002

GPS-based navigation and mobile base station of a mobile robot platform	Mr. Dániel
Car simulator study for the development of a Bring-Your-Own-Device (BYOD) dashboard concept	Mr. Nagy
Sustainability in Textile Manufacturing Processes by Waste Reduction: A Case Study from Bangladesh	Mr. Md Al Mamun
The Impact of Environmental Sustainability and Digitalisation on SMEs' Financial Performance	Dr. Szabó, Z.
Identification for Remanufacturing of a Synchronous Reluctance Machine Considering the Circular Economy Conditions	Mr. Katona
Local Scale Wind Regime Changes and their Consequences in Northern Transdanubia (Hungary)	Dr. Pestiné Rácz
Detecting Anomalies in the FM Frequency Band Using Statistical Methods	Mr. Takács

Sustainability and Engineering & IT section, Slot session 4 Saturday 9:40-11:55

Section Chair: Dr Ferenc Erdős

Section Secretary: Richárd Németh

Location: MC002

Use of AI in Operational Technology Networks and packet-based attacks detection	Mr. Dobrády
Hydrogen policy environment in the European Union, current status of policy uptake	Dr. Torma
Smart hybrid energy management system in a passenger car	Mr. Németh
Simulation of the water balance of a green/blue roof supporting an ecological cycle	Dr. Melinda
The Significance of Data Integration in Geotechnical Engineering: Mitigating Risks and Enhancing Damage Assessment of Expansive Soils	Mr. Alnmr
Evaluation of pedestrians' gaze behavior when crossing the road using eye camera	Ms. Zhanguzhinova
Systematic Energy Optimization and Design of Process Alternatives for Separation of Quaternary Azeotropic Mixtures	Mr. Pimentel
Localization and Multi-Level Techniques for the Method of Fundamental Solutions	Prof. Gáspár
Urban Vulnerability and Earthquake Risks: Incorporating Structural, Geotechnical Considerations, and Sustainability	Mr. Kuria

Sustainability and Engineering & IT section, Slot session 5 Saturday 14:00-15:15

Section Chair: Prof. Dr. Miklós Hatwagner

Section Secretary: Boldizsár Tűű-Szabolcs

Location: MC002

Optimizing Topology of Structures Considering Fatigue-Resistance	Mr. Habashneh
Advanced Numerical Simulation and Modeling of Welding Processes: Stochastic representation of parameters for Improved Fabrication	Mr. Péter
Pavement Sustainability Implications of Different Lateral Wander Modes for Autonomous Trucks	Mr. Fahad
Carbon footprint of conventional and online alternatives of national scientific student conference in Hungary	Dr. Polgár
Energy management systems in smart cities: A review from the perspective of complex networks design.	Mr. Pimentel

Sustainability and Food engineering and Agriculture section, Slot session 1 Friday 10:45-13:00

Section Chair: Dr. Tamás Tóth

Section Secretary: Dr. Balázs Horváth

Location: MC122

Review on the Contribution of Digital Solutions to Sustainable Dairy Farming	Mr. Tarr
Yield Performance, Laying Behavior Traits and Egg Quality of a Crossbred Laying Hen in Alternative Housing Systems	Dr. Zsedely
Managing the modern Holstein cow with a focus on sustainability and resilience	Mr. Bognár
Sustainable Development in the Sahel Region	Ms. Jankovits
Some actualities and challenges in sustainable beef cattle breeding and husbandry	Ms. Márton
Examination of the antimicrobial effect of different essential oils in case of foodborne pathogenic bacteria in a liver pâté type product	Mr. Posgay
Gene Expression of Peroxisome Proliferator-activated Receptor Gamma in Mangalica and Large White Pigs	Dr. Tempfli
Challenges of Ecocentric Sustainable Development in Agriculture with Special Regard to the Internet of Things (IoT).	Prof. Neményi
The first in-deep pedigree analysis of repatriated Gyimes Racka sheep for a sustainable preservation of its genetic resource	Ms. Kárpáti

**Sustainability and Food engineering and Agriculture section, Slot session 2 Friday
14:45-16:30**

Section Chair: Dr. János Tőzsér

Section Secretary: Dr. Károly Tempfli

Location: MC122

Sustainability Aspects of the Hungarian Horse Industry	Dr. Pongrácz
Environmental Assessment of Farm Sustainability – A Hungarian Case Study	Dr. Koltai
Beta-casein genotyping in dairy cow herds	Ms. Szabo-Sarvari
Examining the Sustainability Reporting Practices of Agricultural and Forestry Companies Operating in Hungary	Dr. Gombkötő
Examining the Evolution of Technological Conditions from the Point of View of the Application of Blockchain-based Data Management in Food Supply Chains	Mr. Bertalan
Development history of the agglomeration in Győr - trends in land use of the agglomeration	Ms. Pozsgai
Remote sensing supported sustainable forest management	Dr. Molnár

**Sustainability and Food engineering and Agriculture section, Slot session 3 Friday
17:00-18:15**

Section Chair: Prof. Dr. László Amand Palkovics DSc

Section Secretary: Georgina Takács

Location: MC122

Applicability of beech (<i>Fagus sylvatica</i> L.) leaf polyphenols as indicators for growth and acclimation and their potential contribution to sustainable forestry	Dr. Visiné Dr. Rajczi
Experiences of fungal-pretreated poplar used in anaerobic digestion	Dr. Rétfalvi-Szabó
Utilization of forestry byproducts as a source of natural antioxidants from Hungarian forests	Dr. Hofmann
The Role of Pollen Analysis in the Sustainable Development	Ms. Dominkó
The Challenge of Mobilizing the Unused Wood Stock Reserve to Foster a Sustainable and Prosperous Hungarian Forest Industry	Ms. Király

Sustainability and Art & Design section Slot section 1, Saturday 9:40-10:25

Section Chair: Dr. Csaba Hontvári

Section Secretary: Dr. István Ruppert

Location: MC122

Sustainability Factors in Industrial Robotic Systems	Mr. Hajdu
Sustainability and Music Pedagogy in the Light of the Kodály Principles	Dr. Deakne Kecskes
Stair climbing aid devices as parts of sustainable healthcare	Dr. Hajdu

Sustainability and Law & Political Science section, Slot session 1, Friday, 10:45-12:30

Section Chair: Dr. Csaba Erdős

Section Secretary: Dr. Áron Ósze

Location: MC123

Examining the Integrity of Climate Protection Goals and Climate Change Policy Objectives in the Policies of the European Union	Ms. Sipos
Sustainability Objectives and Central Banks	Dr. Kálmán
Financial consciousness as a driver for sustainability, in the context of SDGs	Dr. Szabó
Green Blockchains	Dr. Király
Sustainability of Election Security from a Multidisciplinary Approach	Mr. Németh
A tool for food security: the protection of genetic resources within the system of intellectual property rights	Dr. Keserű

Sustainability and Law & Political Science section, Slot session 2, Friday, 14:45-15:45

Section Chair: Prof. Dr. Péter Smuk

Section Secretary: Dr. Áron Ósze

Location: MC123

The Legal Meaning of Environmental Sustainability – Do the Ecological SDGs Have Legal Status?	Dr. Kecskés
Sustainability in cultural heritage protection	Dr. Verebélyi
Sustainability in Public Finances Concerning Transfer Pricing in the EU	Dr. Hulkó

Sustainability and Social Sciences section, Slot session 1, Friday, 17:30-18:45

Section Chair: Prof. Dr. Livia Mihályka Ablonczyné

Section Secretary: Zoltán Ködmön

Location: MC123

Examining the CSR Practice of Family-friendly Workplaces in the Light of Sustainability	Ms. Pátkai Bende
Sustainability in Human Resources Management	Mr. Rákosi
Environmental Sustainability and the First Demographic Dividend. The Case of Some Eastern African Countries.	Prof. Berde
A Multidimensional Study of Energy Poverty in the European Union	Dr. Pécsinger
A Sustainable Model of Corporate Embeddedness: Navigating through a Fuzzy Concept	Ms. Pálffy

Sustainability and Social Sciences section, Slot session 2, Saturday 9:40-11:40

Section Chair: Dr. PhD Péter Tóth

Section Secretary: Tamara Böcz

Location: MC123

Examination of the Ménfőcsanak district in terms of sustainability	Dr. Laczkovits-Takács
Sustainable Internal Communication in Educational and Pedagogical Institutions	Dr. Makkos
Divided by Sustainability: Exploring the Elusive and Diverse Aspects of Zero Waste Consumption, a Hungarian Case Study	Ms. Heimné Rácz
How Consumers Accept Unmanned Smart Stores? – Introducing a Proposed Technology Acceptance Model	Dr. Kézai
Sustaining place identity with reference to theories and interview based empirical data from two farmstead settlements (tanya) in the Great Hungarian Plain.	Dr. Bugovics
Population Growth as a Primary Global Issue	Dr. Horváth
Examining Sustainable Consumption Behaviour in Alternative Wine Packaging - Bag-in-Box and Pouch Packaged Wines	Ms. Csiba-Herczeg
Cooperation and Sustainability in Last-mile Logistics Sector: Behavioral aspects of CEP Service Providers	Ms. Bartucz

Sustainability and Teaching & Health section, Slot session 1, Friday 10:45-12:30

Section Chair: Dr. Zsuzsanna Szalai

Section Secretary: Dr. Elza Saitova

Location: MC227

Opportunities for Informal Teaching and Learning in Teacher and Technical Education	Ms. Petzné dr Tóth
Sustainable Eating Habits: Examining Beliefs, Attitudes, and Perceptions of Plant-based Diets among Hungarians	Dr. Keller
Developing algorithmic thinking in a Hungarian Language Course: ICT and chatbots in teacher- education	Dr. Sipos
Environment and health - education for a health-conscious lifestyle	Dr. Csenger
Role of science centres in the field of Sustainability	Mr. Rákosi
A Central and Eastern European example of university -as an institution - aspects of the interpretation of sustainability	Ms. Nagy
Sustainability in folk culture Opportunities of the use of folk knowledge and experience nowadays	Dr. Lanczendorfer

Sustainability and Teaching & Health section, Slot session 2, Friday 14:45-16:45

Section Chair: Dr. Veronika Keller

Section Secretary: Patrícia Horváth

Location: MC227

Pedagogical Innovation for Sustainable Higher Education Initial findings of a new training programme for higher education teachers	Dr. Lőrincz
The sustainable contribution of artificial intelligence to higher education - results of a pilot study	Dr. Gyurián Nagy
Strengthening the training of district nurses by integrating interdisciplinary knowledge of sustainability	Dr. Nagy
An Obstacle to Sustainable and Circular Economic Thinking: How Does Mathematical Anxiety Affect Managerial Decisions?	Mr. Farkas-Kis
Sustainability opportunities and barriers at universities, development of a sustainable university environment	Mr. Németh
Opportunities of education for sustainability in a complex project in Szigetköz	Dr. Lampert
András Halbritter, Borbála Hanusz, Status Report of School Gardens in Hungary	Dr. Hanusz
Quality education and digitization efforts for sustainable development	Ms. Kaszalik

Sustainability and Architecture & Transportation section, Slot session 1 10:45-12:45

Section Chair: Dr. Emese Makó

Section Secretary: Zsófia Magyar

Location: MC228

A Holistic Framework to Prioritizing Building Interventions for Sustainable and Resilient Construction in Seismic-Prone Regions	Mr. Bektaş
Structural optimization of a steel frame for sustainability – a case study	Dr. Ajtayné Károlyfi
Application of parametric design and artificial intelligence in energy analysis of buildings	Ms. Szalai
The railway as a sustainable heritage	Dr. Horváth
Web-based map service connected to ROS2 robot network	Dr. Speiser
Role of information (Internet) in the route choice at sustainable urban public transport	Dr. Winkler
Road Safety and Sustainability: A Comparison of Country Rankings	Prof. Koren
Treno di notte Greta Thunberg: the meaning of sustainability in the overnight rail passenger market – A case study on the route Hungary – Italy	Mr. Lévai
Technological and Environmental Challenges of On-Demand Transportation Systems: a Systematic Literature Review	Dr. Buics

Sustainability and Architecture & Transportation section, Slot session 2 14:45-16:15

Section Chair: Prof. Dr. Szabolcs Fischer

Section Secretary: Richárd Nagy

Location: MC228

Sustainability Aspects of On-Demand Public Transportation from Customer Perspective	Dr. Buics
Sustainability assessment of Hungarian cycling infrastructure investments	Ms. Tóth
The Realization of a Circular Economy in the Construction Industry and its Adaptation to EU Standards in Hungary	Dr. Buruzs
Evaluating the fuel consumption rates based on rising travel demands generated by Autonomous Vehicles	Mr. Mohammed
Age-friendly Transport: Traffic Safety for All	Dr. Henézi
Introducing the Walkability Index, an index that measures the walkability of public spaces	Ms. Hideg
Influence of driver and pedestrian interaction on road capacity at unsignalized pedestrian crossings in Sopron	Mr. Phetoudom

Sustainability and Architecture & Transportation section, Slot session 3 17:00-18:30

Section Chair: Dr. Attila Borsos

Section Secretary: Amira Hammami

Location: MC228

Identifying Driver Behaviors Contributing to Road Safety Among Different Modes at Road Junctions, Peri-Urban Areas, Thailand	Dr. Makó
Renewing vs Rebuilding Preservation of Historic Buildings as a Tool of Sustainability	Dr. Veöreös
Conflict analysis of pedestrian-vehicle interactions	Mr. Kizawi
Integration of the SECAP method in sustainable brownfield rehabilitation planning	Dr. Szakonyi
Impact of different rainfall intensity and duration on flashflood events on a steep-sloped ungaged watershed	Mr. Ámon
The 15-minute City - Sustainable Transformation of Modernist Urban Housing Estates	Mr. Sooki-Toth
Sustainability in railways – a review	Prof. Fischer