INTERNATIONAL

INVITED SESSION SUMMARY

Title of Session:

Intelligent Systems for Sustainable Energy, Mobility and Green Transitions

Name, Title and Affiliation of Chair:
dr inż. Adam Sulich, prof. UE
Department of Advanced Methods in Management
Wroclaw University of Economics and Business, Poland

Details of Session (including aim and scope):

The session aims to bring together researchers and practitioners working on intelligent and knowledge-based systems that support sustainable energy and mobility, as well as broader green transitions in the economy and society. In particular, the session focuses on how AI, machine learning, optimisation and decision support systems can be used to control and manage photovoltaic installations and other renewable energy sources, green vehicles and fleets, logistics and passenger transport, and the related transformations of labour markets and business ecosystems. The scope of the session includes, but is not limited to:

- Intelligent control, forecasting and optimisation of photovoltaic systems, distributed energy resources and microgrids;
- AI- and data-driven management of electric vehicle fleets, charging infrastructure and vehicle-to-grid (V2G) solutions;
- Intelligent systems for sustainable logistics and delivery planning, last-mile distribution and supply chain decarbonisation;
- Smart mobility and transport of people: decision support for public transport, Mobility-as-a-Service (MaaS) and integrated urban mobility;
- AI and machine learning for modelling and forecasting sustainability indicators (energy use, emissions, waste, resource efficiency, etc.);
- Intelligent decision support systems for climate and energy policies, sustainable transport, and green infrastructure;
- Knowledge-based and multi-criteria methods for circular economy, industrial symbiosis and sustainable supply chains and business ecosystems in energy, transport and related industries;
- Intelligent tools for monitoring and implementing the UN 2030 Agenda and the SDGs (especially SDGs 7, 8, 9, 11, 12, 13);
- Data analytics and intelligent systems for green labour markets, green jobs and just transition;
- Smart cities and regions: intelligent platforms integrating mobility, energy, buildings and citizen participation;
- Case studies where intelligent systems have directly influenced energy management, mobility planning, or investment, HR and policy decisions related to sustainable development.

The session welcomes conceptual, methodological and empirical contributions, as well as practice-oriented case studies demonstrating how intelligent information and engineering systems can effectively support sustainable development at organisational, sectoral, regional and national levels.

Main Contributing Researchers / Research Centres (tentative, if known at this stage):
Researchers from:

- Wroclaw University of Economics and Business, Poland
- Wroclaw University of Science and Technology, Poland
- Partner universities, research institutes and innovation centres in Europe and worldwide working on intelligent systems and sustainable development (final list of contributors to be confirmed at a later stage)

Website URL of Call for Papers (if any):

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