Smart Technologies and Sustainable System Innovation ⋆

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Abstract

The rapid advancement of smart technologies, sustainable engineering, and renewable energy systems is transforming the way modern societies address environmental and technological challenges. In response to the growing need for interdisciplinary collaboration and international knowledge exchange, the SunGel-2026 Workshop on Smart Technologies and Sustainable System Innovation will be held in Lviv, Ukraine, on March 26–27, 2026, in conjunction with the 3rd International Conference on Smart Automation & Robotics for Future Industry (SMARTINDUSTRY-2026). The workshop is organized as a dissemination-focused event within the framework of the SunGel collaborative project between Kingston University and Istanbul Technical University. The workshop will provide an international platform for researchers, engineers, academics, and industry stakeholders to present and discuss recent advances in smart and sustainable technologies, with particular attention to renewable energy systems, advanced photovoltaic technologies, sustainable water purification concepts, and system performance evaluation. Special emphasis will be placed on innovative approaches to sustainable system integration, environmental impact assessment, and capacity-building initiatives that support the transition toward more resilient and human-centered technological ecosystems. Within the scope of the SunGel project, participants will explore emerging research directions related to advanced solar cell development and characterization, modular technologies for sustainable water purification, and comparative sustainability assessment methodologies. The workshop will also highlight the importance of international scientific cooperation, interdisciplinary research, and technology transfer in addressing global sustainability challenges. Bringing together researchers and practitioners from different countries and disciplines, SunGel-2026 aims to foster dialogue, encourage collaborative initiatives, and strengthen research and innovation networks. Through presentations, discussions, and dissemination activities, the workshop will contribute to the exchange of knowledge and best practices while supporting future collaborations in the fields of smart technologies, sustainable engineering, and renewable energy innovation.
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