Call for Papers

EH-SWSN: Energy Harvesting and Sustainable Wireless Sensor Networks: Systems, Intelligence, and Applications

The 22nd International Conference on Wireless Communications and Mobile Computing

Website: http://iwcmc.net/2026/

Submission Link: **https://edas.info/newPaper.php?c=34281**

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Scope

Wireless Sensor Networks (WSNs) are a key enabling technology for vehicular systems, intelligent transportation infrastructures, mobile Internet of Things (IoT), and cyber–physical systems. However, the sustainability of large-scale and long-term WSN deployments remains severely constrained by limited battery capacity, frequent maintenance, and environmental impact.

Energy harvesting technologies provide a promising pathway toward self-powered and sustainable wireless systems by enabling sensor nodes to harvest energy from ambient sources such as solar radiation, mechanical vibrations, thermal gradients, and radio-frequency signals. Despite this potential, energy harvesting introduces new challenges related to energy intermittency, unpredictability, adaptive operation, and system reliability, particularly in mobile and vehicular environments.

EH-SWSN workshop aims to bring together researchers and practitioners to discuss recent advances, open challenges, and future directions in energy harvesting–enabled and sustainable wireless sensor networks, with a strong emphasis on green and intelligent communications. The workshop encourages interdisciplinary contributions covering system design, communication protocols, intelligent and learning-based techniques, performance evaluation, and real-world applications.

Topics

Accepted papers will be published in the IEEE IWCMC 2026 proceedings and will be submitted to the IEEE digital library (IEEE Xplore). Authors are welcome to submit original papers (not published before and/or simultaneously to another venue) with topics that include but are not limited to:

- Energy harvesting technologies and models for WSNs and vehicular systems
- Sustainable and green wireless sensor network architectures
- Energy harvesting–aware PHY, MAC, and cross-layer protocol design
- Energy-neutral and energy-aware wireless communication systems

- Machine learning and artificial intelligence for sustainable wireless networks
- Reinforcement learning, adaptive control, and fuzzy systems
- Vehicular and mobile energy harvesting sensor networks
- UAV-assisted sensing and mobile IoT systems
- Hybrid energy sources and multi-source harvesting strategies
- Performance evaluation, simulation, and experimental testbeds
- Reliability, robustness, and fault tolerance in energy harvesting WSNs
- Security and privacy issues in sustainable wireless sensor networks

Submitted papers are encouraged to address novel technical challenges or industrial and standard aspects of the key technologies for sustainable and secure cognitive buildings/cities.

Important Dates

Same deadlines as the main conference dates.

Note: Within this workshop, there will be one Best Paper Award.