Machine Learning and Intelligent Algorithms for Emerging Wireless Communications

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The development of computer and telecommunication technologies gives rise to new applications and services closely related with Industry 4.0, Tactile Internet, Virtual and Augmented Reality, Automated Driving, Massive Internet of Things, etc. These applications and services create new challenges for wireless communications technologies, and thus modern wireless networks become more and more complex and involve cooperation of numerous mechanisms and agents. A promising solution to configure and control such complex communications systems is to apply the machine learning (ML) and intelligent algorithms. In this Special Session, we will consider the use of ML and intelligent algorithms for wireless communications for radio resource management, traffic classification, antenna design, channel access, channel estimation and prediction, rate and power control, and many other directions.

The topics covered include **ML and intelligent algorithms** for:

- Wireless networks for the Internet of Things,
- 5G, 6G, and beyond,
- Wi-Fi 7 and 8, and beyond,
- UAV, robots and vehicular networks,
- PHY layer design and configuration for wireless networks,
- Reflective intelligent surfaces.
- Software-Defined Networks, Network Virtualization and Network Slicing in wireless networks,
- Energy efficient wireless communications,
- Enhanced data security,
- Positioning and user localization in wireless networks,
- Providing Quality of Experience in future networks,
- Transport and application layer optimization over wireless networks (i.e., AR/VR streaming, cloud gaming, multi-path transport protocols, etc.).

Paper submission deadline: 10 April 2023

Acceptance notification: 10 May 2023

To submit the paper, please use EDAS https://edas.info/newPaper.php?c=30406&track=117186.

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