



The 1st International Workshop on Edge Intelligence

EI 2021

“Artificial Intelligence at the Edge of 5G&B and 6G Future Networks”

Izmir, Turkey, 25 October 2021 (or 29 October 2021)

Co-located with CNSM 2021 (<http://www.cnsm-conf.org/2021/index.html>)

Edge Intelligence considers the combined use of Artificial Intelligence (AI) and Multi-Access Edge Computing paradigm in future networks to address the requirements of both final users and network operators. About the first ones, it will guarantee the final application's requirements in terms of latency, delay, reliability and robustness, security and costs. On the other hand, telco providers will be able to manage network facilities in a more efficient way, implementing also zero-touch management solutions capable of self-adapting to different network conditions.

The main goal of the Edge Intelligence Workshop is to present state-of-the-art research results and experience reports about the use of Artificial Intelligence techniques applied at the Edge of 5G&B and the 6G future networks, focusing on models for network and service management of the resources located in the edge nodes. The variety of new services and applications with heterogeneous characteristics in terms of generated traffic, mobility, Quality of Service (QoS) and Quality of Experience (QoE) requirements, and the consequent increment of data transmitted on the next communication networks, demonstrate the importance of providing AI solutions to manage in an efficient way the resources at the Edge.

Topics of interest include, but are not limited to:

- Enabling technologies for Edge Intelligence: SDN, NFV, MEC, AI/ML techniques
- Deep and Reinforcement learning for networking and communications at the Edge of in 5G/5G&B/6G networks
- AI/ML for network management and orchestration at the Edge of future networks
- AI/ML support for ultra-low latency applications at the Edge of the network
- Modeling and performance evaluation for Intelligent Internet of Intelligence Things
- Data mining and big data analytics in 5G/5G&B/6G Edge nodes
- Novel application scenarios for Edge Intelligence: UAVs cooperation, vehicular networks, Tactile Internet, etc
- Self-learning and adaptive networking protocols and algorithms for 5G/5G&B/6G Edge nodes
- Innovative architectures and infrastructures for Edge Intelligence
- AI/ML for optimization of network slicing extension toward the Edge in future networks
- Data-driven management of software defined networks in MEC context
- Methodologies for network problem diagnosis at the Edge, anomaly detection and prediction
- Decision making mechanisms at the Edge
- Reliability, robustness and safety based on AI/ML techniques at the Edge
- Network Security based on AI/ML techniques at the Edge
- AI/ML for IoIT and IIoIT
- Open-source networking optimization tools for Edge Intelligence
- ML for data generation prediction at the Edge
- Intelligent energy-aware/green resource management at the Edge
- AI/ML for service placement and dynamic Service Function Chaining in the Edge Computing scenario

Paper Submissions: Authors are invited to submit original unpublished papers (written in English) in PDF format and not under review elsewhere. Submissions will be subjected to a peer-review process. Papers should be submitted in IEEE 2-column format, with paper length up to 7 pages including references, through the EDAS conference management system.

Authors of the top-ranked papers accepted for publication in the EI 2021 workshop proceedings will be invited to submit an extended version to an international journal (more information will be provided later).

Important dates:

Paper submission deadline: July 31, 2021

Acceptance notification: Sept. 7, 2021

Camera ready submission: Sept. 21, 2021

***** Workshop General co-chairs *****

- Nabeel Akhtar, Akamai Technologies Inc, USA
- Salvatore D'Oro, Northeastern University, USA
- Christian Grasso, University of Catania, Italy
- Giovanni Schembra, University of Catania
- Michael Seufert, University of Würzburg, Germany