The 1st Workshop on 5G and machine learning for IoT and unmanned aerial vehicles (UAV)

Organizing Chairs:
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Description:

The rapid development and deployment of commercial 5G technologies within this decade leads to new opportunities and challenges to exploit the features of 5G and other emerging technologies to enhance performance and security. The development of a new 5G-enabled and machine learning (ML)-aided communications & computing framework towards enhanced decision-making in IoT will be important in scenarios such as real-time surveillance for smart city, sustainability, and defence. The workshop will cover fundamental research in integrating machine learning for decision making and control in uncertain environments, mobile computing on UAV, and 5G-enabled UAV/IoT. New 5G designs for transceiver and network resources and communication with ground/air devices will be welcome. Developments of IoT frameworks and platforms for situation awareness and various applications is also encouraged.

Topics of Interest:

The workshop aims to address but not limited to the following:

- UAV/robotic navigation for 3D and real-time map-building
- Autonomous UAV/IoT processing
- AI for edge computing: model compression, optimizations, explainability
- Federated learning and online learning
- Data fusion with ground and airborne sensors
- UAV-assisted communications: air-to-air (A2A), air-to-ground (A2G)
- Design of 5G-enabled mobile UAV/IoT platforms
- 5G transceiver designs and communication protocols, beamforming
- Network resource management and slicing
- Machine learning for enhanced 5G communications.
- Applications and use cases of 5G IoT/UAV Platforms

Important dates:
Paper submission: Jul 30, 2023
Notification of acceptance: Aug 21, 2023
Camera-ready submission: Sep 29, 2023
Presentation submission: Oct 2, 2023

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Paper Submission:

All papers must be submitted through eWorks. You must choose the workshop track (Work-03) when submitting your paper. The paper should be up to six (6) pages in length. The conference allows for two additional pages for a total of eight (8) pages upon payment of extra page fees once the paper has been accepted. The paper can be prepared using the template available through the Authors/Proposers tab from the WF-IoT main page: https://wfiot2023.iot.ieee.org. Authors of accepted papers will need to provide a final version of your paper in PDF format and upload it by the camera-ready deadline and complete the assignment of copyright and release form. For your paper to be included in the proceedings and published in IEEE Xplore, at least one author is required to register for WF-IoT 2023 by the deadline.

More information on the workshop:

https://wfiot2023.iot.ieee.org/1st-workshop-5g-and-machine-learning-iot-and-unmanned-aerial-vehicles-uav