

# The First Workshop on Aerial and Space Networks for Internet of Things

October 12-27 2023  
Aveiro Congress Center, Portugal

In conjunction with IEEE WF-IoT 2023



## Organizing Chairs:

**Xiang Sun**

*University of New Mexico*

**Jingjing Yao**

*Texas Tech University*

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## Important dates:

Paper submission: Jul 30, 2023

Notification of acceptance: Aug 21, 2023

Camera-ready submission: Sep 29, 2023

Presentation submission: Oct 2, 2023



THE UNIVERSITY OF  
NEW MEXICO.



## Description:

Despite several key insights have been focusing onto the integration of terrestrial into aerial and satellite networks, it is still unclear that how Aerial and Space Networks (ASNs) facilitates IoT applications and whether ASNs can satisfy the various requirements of heterogeneous IoT devices. The IEEE WF-IoT 2023 Workshop on Aerial and Space Networks for Internet of Things anticipates attracting a large volume number of high-quality submissions and foster the communication among academic researchers, industrial engineers/leaders, and practitioners with a common interest in the interplay among wireless communications and networking, Artificial Intelligence, edge computing, IoT, and security. The workshop will promote the development of underexplored research studies that are very critical to achieve agile, robust, flexible, and scalable ASNs to serve heterogeneous IoT devices and applications. The workshop aims to address but not limit to the following:

- Massive MIMO, mmWave communications, terahertz communications, and free space optics in ASNs for IoT applications
- Advanced antenna design for ASNs
- Channel measurement and modelling for ground-to-space, air-to-space, air-to-air, and space-to-space wireless links
- Semantic communications for ASNs
- Integrated sensing and communications (ISAC) for ASNs
- New networking architecture design for ASNs, such as OpenRAN and SDN
- Intelligent network orchestration in ASNs for IoT applications, such as 3D aerial node placement/trajectory design, and aerial and space network reconfigurations
- Radio resource management in ASNs for IoT applications
- Optimized coexistence among terrestrial, aerial, and space networks
- Machine learning assisted task offloading optimization in ASN based edge computing
- Wireless network optimization in ASN based edge computing
- Data compression in ASN based edge computing for IoT applications.
- Privacy and security for in ASN based edge computing
- Cyber security and physical-layer security for wireless communications in ASNs.

## Paper Submission:

All papers must be submitted through eWorks. You must choose the workshop track (**Work-15**) when submitting your paper in order to be considered for this workshop. The paper should be up to six (6) pages in length. The conference allows up to two additional pages for a maximum length 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 conference website main page at: <https://wfiot2023.iot.ieee.org>. An alternative is to use the IEEE Word or Latex tools that can be found through: <https://conferences.ieeeauthorcenter.ieee.org/write-your-paper/authoring-tools-and-templates/>. 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-aerial-and-space-networks-internet-things>