

October 12-27 2023
(the exact date will be announced later)
Aveiro Congress Center, Portugal

In conjunction with IEEE WF-IoT 2023



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University of Oulu

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Talha Khan, Ericsson, USA

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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

Description:

The idea of interconnecting mobile and satellite networks gained much interest from both Industry and Academia during the past decade, particularly in the cases of coverage extension and backhauling in remote areas. However, the work has focused chiefly on complementing terrestrial services. Recently, this idea has been renewed and expanded to integrate mobile and satellite networks for IoT seamlessly. However, given the novelty of the targeted field and the challenging requirements (e.g., the unprecedented mobility of the low Earth orbit satellites, the vast communication link distances, and the lack of possibility of servicing the satellites after launch, distinct IoT device requirements and traffic patterns from conventional satellite terminals), the integration of IoT and satellite imposes development of new architectures and technical solutions.

Topics of Interest:

The goal of the *1st Workshop on integrating MTC and Satellites - Sat-IoT* is to present and discuss the industry and academia's latest insights and innovations on Satellite-IoT connectivity. This workshop will attract contributions exploring the following topics of interest (but not limited to):

- Satellites in IoT-based scenarios
- Satellite air interface for satellite IoT services
- Space-based segment architectures (GSO, NGSO, HAPs, UAS)
- LPWAN (cellular and non-cellular technologies) and satellite IoT
- Connectivity-oriented (Mega) Constellations
- Integration of satellite IoT and other non-terrestrial networks
- Information-Centric Networking (ICN) architectures for satellite IoT
- Networking architectures and protocols tailored to satellite IoT services
- Random-access schemes for satellite IoT
- MQTT/CoAP-based protocols over satellite networks
- Cloud/Edge/Fog computing concepts for satellite IoT systems
- Energy efficient cross-layer MAC-PHY design for satellite IoT
- NFV and SDN for satellite IoT
- Channel estimation and user detection in massive satellite IoT systems
- Robust and flexible interference management techniques for massive satellite IoT systems
- Dynamic spectrum management for spectrum coexistence
- Over-the-air and in-lab validation activities and test results on satellite-IoT
- Standardization activities related to satellite IoT
- Services and applications enabled by satellite IoT

Paper Submission:

All papers must be submitted through the eWorks link:

<https://wfiot2023.iot.ieee.org/1st-workshop-integrating-mtc-and-satellites-sat-iot>

(choose the workshop track - **Work-11**. The paper should be up to six (6) pages (up to 8 pages allowed with overlength fees). Template available at Authors / Proposers:

<https://wfiot2023.iot.ieee.org>.

More information on the workshop:

<https://wfiot2023.iot.ieee.org/1st-workshop-integrating-mtc-and-satellites-sat-iot>