Proposal for

The First Workshop on Next-Generation Mobile Networking and Computing (NGMobile 2021)

In conjunction with IEEE ICDCS 2021, July 7 - July 10, 2021 (Tentative), Washington, DC, USA

Important dates

- Paper submission: March 5, 2021
- Paper notification: April 5, 2021
- Camera ready: April 20, 2021

Overview

As 5G mobile networks are emerging, there are incredible interests by various stakeholders in developing innovative technologies and applications to enhance 5G and/or enable the next generation of mobile networking and computing. These technologies are able to further increase data rate and coverage, improve spectrum efficiency and energy efficiency, reduce latency, enhance network reliability, mobility management, and quality of service through dynamic access of shared spectrum, efficient operation with limited radio and network resources, virtualization of wireless network functions, integration of computation and storage at the wireless edge, and application of AI/ML for new wireless system and architecture design.

This Workshop serves as a forum for scientists and engineers in both academia and industry to discuss their original research work, findings, and experiences on the innovations on next-generation mobile networking and computing.

Topics of Interest

We invite submissions of original and unpublished works. Topics of interest include, but are not limited to:

- 5G enhancement/6G, next-G mobile networking architectures and protocols
- Cloud-RAN and Fog-RAN
- Mobile edge/fog computing
- Mobile cloud computing
- Integrated wireless networking, storage, and computing
- Internet of Things (IoT) and machine-type communications
- Cross-layer wireless network design
- Massive MIMO beamforming/NOMA networks
- Resource orchestration in next-generation mobile networks
- Software defined radio and cognitive radio networks
- Wireless network function virtualization (NFV)
- QoS/QoE in next-generation wireless networks
- Drone/UAV networking
- Vehicular networking (V2V/V2I/V2X)
- Spectrum sensing, access, and sharing
- Terahertz wireless communications
- Energy-efficient green communications
- Ultra-reliable low-latency communications
- AI/ML for wireless networks
- AI/ML for spectrum management,
- Distributed AI/ML over wireless edge networks
- Wireless network security (physical layer, application layer, etc.)
- Next-generation spectrum/radio network anomaly, intrusion, and attack detection/prevention
- Novel mobile applications and services

A brief description of the review process

The preferred workshop format is that of a full-day. In addition to the majority of papers accepted according to the submission procedure, the workshop will include 1-2 invited keynotes. Procedures for selecting papers:

- Each submitted paper will be reviewed by at least 3 reviewers.
- We plan to accept about 8 papers, with an acceptance rate of 50%.

Program Committee: (TBD)

Submission Guidelines

Submission Link: EasyChair

Submitted papers should be original, unpublished work and not currently under review for any other conference or journal. Each submission must not exceed 8 pages for full papers in the IEEE 8.5" x 11" two-column format with 10-point font, including tables, figures, and references. Template formatting is located at IEEE website .

All submitted manuscripts will be peer-reviewed by the program committee members. At least one author of all the accepted paper should register and give a presentation in the conference in order for the accepted paper to be included into the IEEE digital library. All accepted papers will be included in IEEE Xplore and indexed by EI.

Information about the previous edition of the workshop

N/A

Organizers:

Hang Liu
The Catholic University of America
Washington, DC, USA
Email: liuh@cua.edu

Feng Wang
University of Mississippi
University, MS, USA
Email: fwang@cs.olemiss.edu

Yang Guo
National Institute of Standards and Technology
Gaithersburg, MD, USA
Email : Yang.guo@nist.gov

Marwan Krunz
The University of Arizona
Tucson, AZ, USA
Email : krunz@arizona.edu