

CALL FOR PAPERS

IEEE GLOBECOM 2022 Workshop on

High Capacity Wireless Communications (HCWC 2022)

Rio de Janeiro, Brazil, December 8, 2022



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Background and Scope

Looking into the era of 6G when various types of wireless usage are becoming mature, capacity of base stations should be large enough to accommodate these diversely increasing traffic. It is utmost important to consider the vision and core technologies for the 6G era. Among various aspects, it is no doubt that mobile traffic will continuously increase and the demand for large-capacity wireless transmission will continue to grow as 5G accelerates usage of wireless communications in all sorts of fields including connected cars, virtual-reality/augmented-reality (VR/AR), and high-definition video transmission. Considering such mobile traffic growth trend, it is expected several hundred gigabit-class to terabit-class wireless transmission is necessary to support demand for wireless communications in the 2030s.

In the previous 1st workshop, we revisited the point-to-point wireless communication with focus on the realization of high capacity. In the previous 2nd, we expanded the scope to include both point-to-point and point-to-multipoint communications that achieve “high capacity” to actively cope with new challenges and demands toward 6G. In this workshop, we expand the scope to include various technologies that enables the “high capacity” such as photonics-aided wireless communication, FSO, and hybrid THz and mmWave communications. At the same time the scope of this workshop includes various perspectives such as potential applications, system consideration, and wireless transmission technologies. In the application and system perspectives, realization of high capacity wireless fronthaul/backhaul as well as integrated access and backhaul might be examples. Of course, other related topics are included in the scope. This workshop is expected to be held with the discussion of the state-of-the-art research to explore the all of academic and industrial interests of high capacity wireless communications toward 6G. To ensure complete coverage of the advances in this field, this workshop calls for original contributions in, but not limited to, the following topical areas:

- Vision and expectation for 6G
- Usage scenarios of high capacity wireless communications
- Wireless fronthaul, backhaul, integrated access and backhaul
- OAM multiplexing wireless communications
- THz/mmWave wireless communications, and hybrid transmission
- Line of sight MIMO wireless communications
- Optical wireless communications, free space communications
- Hybrid optical and wireless communications
- Photonics-aided wireless transmission
- Device technologies
- Proof of concept experiments

Important Dates

July 15, 2022

Full Paper Submission

September 1, 2022

Acceptance Notification

October 1, 2022

Camera-ready Submission

Author Guideline

The page length for review must be upto 6 printed pages (10-point font). Use standard IEEE conference templates. Only PDF files will be accepted for the review process, and all submissions must be done through EDAS.

<https://edas.info/N29701>

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