

CALL FOR PAPERS

IEEE GLOBECOM 2019 Workshop on
**High Capacity Point-to-Point
Wireless Communications (HCPtP 2019)**
Waikoloa, Hawaii, USA, December 9, 2019



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Background and Scope

At this point, 5G is already looking at commercialization and mobile traffic is expected to increase further. 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.

Looking ahead to the potential after 5G when various types of wireless usage are becoming mature, capacity of base stations should be large enough to accommodate these diversely increasing traffic. In addition, if the usage of network is diversified and parts of links between base stations becomes wirelessly connected, increasing the capacity of point-to-point wireless communication also becomes essential. The point-to-point wireless communication has been researched since the early days of wireless communications. In this workshop, we revisit this topic with focus on the realization of “high capacity” to actively cope with new changes and demands toward beyond 5G and further. The scope includes various perspectives such as potential applications, system consideration, and/or wireless transmission technologies. In application and system perspectives, realization of high capacity wireless fronthaul/backhaul as well as integrated access and backhaul might be examples. In wireless transmission technologies perspective, recent promising technologies such as OAM wireless multiplexing and others might be considered.

This workshop is expected to be held with the discussion of the state-of-the-art research including usage scenarios, system design, and/or possibilities of high capacity point-to-point wireless communications. 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 beyond 5G and further
- Usage scenarios of high capacity point-to-point wireless communications
- Wireless fronthaul, backhaul, integrated access and backhaul
- OAM multiplexing wireless communications
- mmWave and THz wireless communications
- Line of sight MIMO wireless communications
- Optical wireless communications, free space communications
- Hybrid optical and wireless communications
- Radio vortex, wireless multimode communications
- Proof of concept experiments

Important Dates

June 30, 2019

Full Paper Submission

August 15, 2019

Acceptance Notification

September 15, 2019

Camera-ready Submission

Author Guideline

The page length for review must be 4-6 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/N26290>

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