Announcing a Special Section in IEEE Access:
Emerging Cloud-Based Wireless Communications and Networks

Submission Deadline: October 15, 2015

IEEE Access invites manuscript submissions in the area of Emerging Cloud-Based Wireless Communications and Networks.

Cloud-based processing is expected to play a major role in the fifth generation (5G) wireless communication systems, which allows for a high-quality experience for mobile cellular access. Based on the idea of combining cloud computing and cellular communications, the cloud base station architecture revolutionizes the design of cellular systems, such as in cloud-based radio access networks (C-RANs). Despite the ever-growing interest in cloud-based wireless communications and networks, some fundamental problems are still open. For example, the method of integration of cloud processing into emerging wireless communications and networks, and the potential performance gain that can be achieved by cloud processing in wireless systems requires comprehensive investigation.

There is an urgent need to research new techniques on the design, operation, and application of emerging cloud-based wireless communications and networks. When embracing the cloud processing technologies in wireless communication and networks, the integration of wireless networks and cloud-processing brings new challenges on various aspects, including network architecture, radio access techniques, front-haul/back-haul links, cloud resource allocation, etc.

The goal of this Special Section in IEEE Access is to collect articles on the latest state-of-the-art research advances in a pressing research field that will shape the future of wireless communications and networks. It will bring together researchers from diverse fields and specializations to study the requirements, solutions and implementations for emerging cloud-based wireless communications and networks from both the academic and industrial perspectives.

Topics of interest include, but are not limited to:
- Architecture of emerging cloud-based wireless communications and networks
- Information theory for cloud-based wireless communications and networks
- Fronthaul/backhaul issues for cloud-based wireless communications and networks
- QoS provisioning and resource management in cloud-based wireless communications and networks
- Emerging cloud-based heterogeneous wireless networks
- Signal processing for cloud-based wireless communications and networks
- Energy efficient cloud-based wireless communications and networks
- Design issues of cloud base stations powered by renewable energy
- Network economics related to cloud-based wireless communications and networks
- Security and privacy issues of cloud-based wireless communications and networks
- Experimental test-beds of cloud-based wireless communications and networks
- Standardization activities for cloud-based wireless communications and networks
We also highly recommend the submission of multimedia with each article as it significantly increases the visibility downloads and citations of articles.

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