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## Important Dates

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| **Full paper submission:** | **May 17, 2019 (extended)** |
| Acceptance notification: | June 14, 2019 |
| Camera-ready paper: | June 28, 2019 |
| Author registration: | June 28, 2019 |

**Workshop: August 27, 2019**

# Call for Workshop Papers

## WS05: Design and Optimization in 5G Cloud Radio Access Networks

### Scope and Topics of the Workshop

5G mobile systems are expected to support highly dynamic traffic and stringent delay requirements. Pervasive deployment of a large number of low-power small base stations with possibly overlapped radiation ranges appears to be the most viable solution to meet the requirements. C-RAN is promised to serve in such a scenario by centralizing the baseband units (BBUs) of the BSs into a common BBU pool, while leaving the remote radio units (RRUs) geographically distributed over a wide area for providing radio transmission/reception functions. The centralization of the baseband processing functions shall provide remarkable benefits in terms of resource sharing and most importantly, a seamless inter-BBU collaboration for interference mitigation. The antennas, with all the radio-frequency functionalities and minimal local processing, are hosted at the RRUs, while modulation/demodulation and precoding/decoding are performed at the BBUs.

A tremendous amount of research works regarding the 5G C-RAN design, modelling, and optimization has been reported in the past a few years. However, there are still a number of open issues to be addressed, including the design of front-hauls, the C-RAN backbone interconnections, and the indoor distribution system, etc., which are crucial in supporting the rich and heterogeneous mobile services in the future 5G networks. Thus, the workshop is positioned to serving as a platform of gathering a number of researchers in the area to present the most state-of-the-art contributions, which include but not limited to:

• Design and optimization of front-haul links
• CPRI function split schemes and their performance evaluation
• C-RAN backbone architecture design and optimization
• C-RAN Designs for emerging applications and service requirements
• Design and optimization for Indoor distributed systems
• 5G indoor/outdoor positioning system
• Software defined C-RAN core architecture

### Submission Guidelines

Only full papers are considered. The length should not be longer than five A4 pages (in IEEE two-column format, 10pt, according to the IEEE template). Papers must be submitted via EDAS. Accepted and presented papers will be published in the conference proceedings and submitted to IEEE Xplore as well as other Abstracting and Indexing (A&I) databases.