

EDITOR'S UPDATES — JUNE 2022

Welcome to the June 2022 Edition of *IEEE Communications Standards Magazine*. This edition features the Special Issue “Recent and Future Evolution of Wi-Fi” with five articles published. In addition, one article under the Series Topic “IoT and Machine-Type Communication” is also published. All of the above are introduced by their respective editors in separate editorials later.

Under the Open Call, four articles addressing 5G systems are accepted in this edition. The first article is entitled “Multi-SIM Support in 5G Evolution: Challenges and Opportunities.” The article is a joint work from academia and industry. It introduces the development of unified cross-platform solutions standardized in the 3rd Generation Partnership Project (3GPP) for devices with multiple subscriber identification modules (SIMs). The benefits, drawbacks, and impact of different candidate solutions are analyzed, together with possible future directions.

The second article is a team effort with multiple authors with the title “Over-the-Air Performance Testing of 5G New Radio User Equipment: Standardization and Challenges.” It provides an overview of the 5G multiple-input multiple-output (MIMO) over-the-air performance testing status in 3GPP standardization. The test methodologies and measurement results of 5G New Radio are also presented.

The third article is “Can 5G Fixed Broadband Bridge the Rural Digital Divide?” It discusses how 5G fixed broadband access (FWA) could benefit users in rural regions, with improvements due to 5G architecture and new advances in 3GPP Releases 16 and 17. Future research directions are outlined to meet the challenges in planning and operating rural FWA networks.

The fourth article, “Multi-Access Intelligent A+: Ensuring Service Continuity and Consistency in Private 5G Heterogeneous Networks.” is again a collaboration work from academia and industry. It proposes a mobile edge platform in support of service continuity and consistency of wireless connections in private 5G heterogeneous networks. A proof-of-concept testbed is also introduced together with demonstrated results in a 5G experimental network.



Zander Lei

The Industry Commentary article “Europe Must Act Now to Enable Next-Generation Wi-Fi Activity” is written by Martha Suarez, the President of the Dynamic Spectrum Alliance. It highlights the challenges Europe is facing to meet the ever increasing demands for Wi-Fi access. It calls for more spectrum allocation in the 6 GHz band to license-exempt radio local area network technologies.

In addition, two short articles are presented in the Standards News column, updating the progress in the following standards development organizations (SDOs):

- Broadband Forum: Software, Hardware and Architecture Project Stream (SHAPS)
- WT-124 Functional Requirements for Broadband Residential Gateway Devices

- WT-492 Software Based Architecture for the App-Enabled Services Gateway — Design Principles
- IEEE P802.11BI: Privacy Enhancement for Wireless LANs

I would like to thank all the authors for submitting their papers to *IEEE Communications Standards Magazine* and the peer reviewers for reviewing the manuscripts. Jennifer Porcello and Christina Keller on the Communications Society staff have been limitless in their support of this publication. Glenn Parsons, the Founding Editor-in-Chief, has been helping handle the IEEE Commentary Column, and Carlos Cordeiro, the Associate Editor-in-Chief, has been pulling together articles for both the Industry Commentary Column and the News Column.

BIOGRAPHY

ZANDER LEI (lei.zhongding@huawei.com) is a senior researcher at Shield Lab, Huawei Singapore Research Center. He has been working on 5G security for 3GPP networks since 2016. Prior to joining Huawei, he was a Lab Head and senior scientist with the Agency for Science, Technology, and Research (A-STAR) of Singapore, doing research and participating in standardization activities on various aspects in wireless systems and networks. He was the Associate Editor-in-Chief of *IEEE Communications Standards Magazine* from 2017 to 2019, the Chair/Co-Chair and Chief Editor for the Task Forces developing Singapore standards on IoT and ITS, respectively, from 2014 to 2018, the Vice Chair of the IEEE 802.11ah Task Group from 2014 to 2016, and PHY Technical Editor of the IEEE 802.22 Working Group from 2006.

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