Editor's Updates: March 2021

Welcome to the March 2021 Edition of the *IEEE Communications Standards Magazine*. The Series Topic featured in this issue is Vehicular Networking, where five articles are included and will be introduced by the Series Editors in a separate editorial.

In addition, four articles have been accepted from the Open Call. 5G cellular systems are being deployed worldwide, and at the same time enhanced standards are being developed in the 3GPP. All four articles are addressing issues with respect to standardization, implementation, or deployment of 5G systems.

The first article, entitled "Mobility Prediction for 5G Core Network," is presented by a group of researchers from Ericsson. The article studies a taxonomy of mobility prediction frameworks in 5G core networks, considering the architecture and interfaces defined in the 5G specifications and taking advantage of data analysis and machine learning techniques.

The second article, "Decentralized Joint Beamforming, User Scheduling, and QoS Management in 5G and Beyond Systems," is a joint work by Ericsson and the Federal University of Ceara, Brazil. It proposes a decentralized joint beamforming design and user scheduling algorithm, taking into account minimum rate requirements, for 5G systems and beyond. Simulation results demonstrate its superior performance as opposed to benchmarking algorithms.

The third article in the Open Call category is "Communications Standards for Unmanned Aircraft Systems: The 3GPP Perspective and Research Drivers" by authors from Mississippi State University. The article surveys the 3GPP standardization efforts for Unmanned Aircraft Systems assisted by cellular networks. The platforms bridging research, standardization, development, and deployment are discussed, in additional to insights on future research challenges and opportunities.

The fourth article, "5G Intelligent A+: A Pioneer Multi-access Edge Computing Solution for 5G Private Networks," is also a joint work from industry and academia, i.e. Chunghwa Telecommunication Co., Ltd. and National Taiwan University. The article introduces a proof-of-concept multi-access edge computing system developed and demonstrated for 5G private networks, capable of providing additional network functionalities.

Besides the peer-reviewed papers, an invited article entitled "When Can We Go Back to Normal for Developing Standards?" is presented in the Commentary column from the newly elected President of the IEEE Standards Association (SA), James E. Matthews III. It discusses in detail the impact of the Covid-19 pandemic on the process of standardization, especially the landscape changes and challenges due to the shifting from physical meetings to online web meetings. It also provides insights into the future "new normal" in developing standards.

In the Standards News column, the activities in the following standards development organizations are updated:
• Avnu Alliance for IEEE 802.1 time sensitive networking
• IEEE 802.1: 802.1DF task force
• IEEE 802.3: beyond 400Gbps Ethernet study group and the 802.3ct and 802.3wt task forces
• ETSI Technical Committee (TC) on Broadband Radio Access Networks (BRAN)
• oneM2M on smart cities

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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 had been 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/for 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 IEEE 802.11ah Task Group from 2014 to 2016, and PHY technical editor of the IEEE 802.22 Working Group from 2006.