## **EDITOR'S UPDATES: DECEMBER 2021**

elcome to the December 2021 Edition of *IEEE Communications Standards Magazine*. This edition features a Special Issue on Drone Networking, together with two Series Topics, Wireless and Radio Communications and Standardization Ecosystem: Policy and Patents. The Special Issue includes 12 articles, while the Series Topics contain three and two articles, respectively. All 17 articles are introduced in separate editorials later.

In addition, three articles have been accepted from the Open Call covering mobile networks of evolved 4G, 5G, and 6G, respectively.

The first article, "Networked Twins and Twins of Networks: An Overview on the Relationship between Digital Twins and 6G," is con-

tributed from academia. The article describes the features and requirements of the digital twin and potential applications in 6G, providing insights for future research directions and challenges.

The title of the second article is "5G from Space: An Overview of 3GPP Non-Terrestrial Networks." It is written by researchers from the industry and describes how the 5G network is evolving to integrate satellite networks, covering the system design ranging from the radio access network, services and system aspects to the core network and terminals.

The third article, "An Overview of 3GPP Release-15 Study on Enhanced LTE Support for Connected Drones," is also from the industry. It provides the key findings of a study in the 3rd Generation Partnership Project (3GPP) on unmanned aerial vehicles (UAVs), including potential solutions for interference detection and mitigation techniques, mobility enhancements, and UAV identification.

Apart from the above peer-reviewed articles, a number of invited articles are included in the Industry Commentary Column and the Standards News column. James E Matthews III, President of IEEE Standards Association (SA), presents the article "Change Brings Danger and Opportunity: Moving from 2021 into 2022." It summarizes the challenges



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the IEEE SA has faced due to the COVID-19 pandemic and new capabilities and innovation activities introduced in 2021. Moving forward, key goals are set for 2022, including, among others, to better serve humanity and address climate changes, enhance the presence and reputation of the IEEE, increase collaborations, and improve diversity.

Three short articles are presented in the Standards News column, updating the standardization activities in the following standards development organizations:

- Wireless Broadband Alliance (WBA): Open-Roaming project
- Avnu Alliance: Wireless Time-Sensitive Networking

• 3GPP SA Working Group 2: New Studies in Release 18

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 on the Communications Society staff has been limitless in her support of this publication. Glenn Parsons, the founding Editorin-Chief, has been helping handle the Commentary Column, and Carlos Cordeiro, the Associate Editor-in-Chief, has been pulling together articles for the News Column. Last but not least, I would like to express my special appreciation to retired publisher Joseph Milizzo for his dedication and significant contributions to this magazine.

## **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 laboratory 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 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.

**IEEE COMMUNICATIONS STANDARDS MAGAZINE** (ISSN 2471-2825) is published quarterly by The Institute of Electrical and Electronics Engineers, Inc. Headquarters address: IEEE, 3 Park Avenue, 17th Floor, New York, NY 10016-5997, USA; tel: +1 (212) 705-8900; http://www.comsoc.org/comstandardsmag. Responsibility for the contents rests upon authors of signed articles and not the IEEE or its members. Unless otherwise specified, the IEEE neither endorses nor sanctions any positions or actions espoused in *IEEE Communications Standards Magazine*.

ANNUAL SUBSCRIPTION: US\$48 print subscription; US\$33 electronic subscription; US\$480 non-member print subscription.

 $\textbf{EDITORIAL CORRESPONDENCE:} \ Address \ to: \ Editor-in-Chief, \ Zander \ Lei, \ Huawei \ Technologies, \ Singapore, \ e-mail: \ lei.zhongding@huawei.com.$ 

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**POSTMASTER:** Send address changes to *IEEE Communications Standards Magazine*, IEEE, 445 Hoes Lane, Piscataway, NJ 08855-1331. GST Registration No. 125634188. Printed in USA. Periodicals postage paid at New York, NY and at additional mailing offices. Canadian Post International Publications Mail (Canadian Distribution) Sales Agreement No. 40030962. Return undeliverable Canadian addresses to: Frontier, PO Box 1051, 1031 Helena Street, Fort Eire, ON L2A 6C7.

SUBSCRIPTIONS: Orders, address changes – IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08855-1331, USA; tel: +1 (732) 981-0060; e-mail: address.change@ieee.org.

ADVERTISING: Advertising is accepted at the discretion of the publisher. Address correspondence to: Advertising Manager, IEEE Communications Standards Magazine, IEEE, 3 Park Avenue, 17th Floor, New York, NY 10016-5997.

SUBMISSIONS: The magazine welcomes tutorial or survey articles that span the breadth of communications. Submissions will normally be approximately 4500 words, with few mathematical formulas, accompanied by up to six figures and/or tables, with up to ten carefully selected references. Electronic submissions are preferred and should be submitted through Manuscript Central: http://mc.manuscriptcentral.com/m-comstd. Submission instructions can be found at the following: http://www.comsoc.org/comstandardsmag/paper-submission-guidelines. All submissions will be peer reviewed. For further information contact Associate Editor-in-Chief, Carlos Cordeiro, Intel, USA (carlos.cordeiro@intel.com).