Inaugural Editorial

ELCOME to the IEEE INTERNET OF THINGS JOURNAL (IOT-J), which is co-sponsored by the IEEE Sensors Council, IEEE Computer Society, IEEE Communications Society, and IEEE Signal Processing Society. We are very excited to see the launch of this JOURNAL. It is our great honor to serve the IoT-J.

The Internet of Things (IoT) has been emerging as "the next big thing" in Internet. As a rapidly growing area, IoT has become a technological focus for academia, industry, and even government organizations. Many regions and countries have made tremendous investments in recent years to promote IoT research and development. It is envisioned that many billions of physical "things" will be connected to the Internet to enable smart life and a smart planet.

Although IEEE has several existing periodicals related to IoT, none of them focus solely on IoT technologies. The IoT-J publishes papers on the latest advances, as well as review articles, on various aspects of IoT. Topics will include IoT system architecture, IoT enabling technologies, IoT communications and networking protocols, IoT services and applications, and the social implications of IoT. Special issues will focus on single topic areas. Examples include IoT demands, impacts, and implications on sensors technologies, big data management, and future internet design for various IoT application scenarios, such as smart cities, smart environments, smart homes, etc.

The need for the IoT-J is evidenced by the more than 200 manuscripts received during the past few months. This inaugural

Digital Object Identifier 10.1109/JIOT.2014.2318793

issue will be published in two parts. Part I presents a good set of review and research papers covering wide areas of IoT. Additional papers, in other areas, will be included in Part II of this inaugural issue.

The IoT-J "pipeline" includes special issues on selected topics such as IoT Security, Smart and Connected Health, Internet of Vehicles, Mobile Crowd Sensing, Big Data Analytics, and Cloud for IoT. We hope that the IoT-J will represent IEEE well by becoming the world's foremost publication on the IoT. The JOURNAL has a strict peer-review policy and it aims to have short delays between submission and publication.

We would like to take this opportunity to thank all the authors, reviewers, and Editorial Board members for their contributions. We also wish to thank the IoT-J Steering Committee and Advisory Board for their support.

We look forward to receiving your submissions, suggestions, and volunteer services. Thank you all, in advance.

CHONGGANG WANG, Founding Editor-in-Chief Innovation Lab InterDigital Communications King of Prussia, PA 19406 USA e-mail: cgwang@ieee.org

NEI KATO, Associate Editor-in-Chief
Department of Applied Information Sciences
Tohoku University
Sendai 980-8579, Japan
e-mail: kato@it.ecei.tohoku.ac.jp



Chonggang Wang (S'99–A'02–M'04–SM'09) received the B.S. degree from Northwestern Polytechnical University (NPU), Xi'an, China, in 1996, the M.S. degree from the University of Electronic Science and Technology of China (UESTC), Chengdu, China, in 1999, and the Ph.D. degree from the Beijing University of Posts and Telecommunications (BUPT), Beijing, China, in 2002.

He is currently a Member Technical Staff with the Innovation Lab, InterDigital Communications, King of Prussia, PA, USA, with a focus on Internet of Things (IoT) R&D activities including technology development and standardization. Before joining the Innovation Lab, InterDigital Communications, in 2010, he performed R&D at NEC Laboratories America, AT&T Labs Research, University of Arkansas–Fayetteville, and Hong Kong University of Science and Technology. He has been an active participant and contributor in IoT standardization

activities in various standard development organizations such as ETSI, IEEE, IETF, and oneM2M. He was elected as the Rapporteur of the ETSI TC M2M Working Group 5 on Device Management in 2011. He holds more than 60 patents and patent applications. He has coauthored more than 100 journal/conference articles and book chapters. His current research interest includes IoT, machine-to-machine (M2M) communications, mobile and cloud computing, and big data management and analytics.

Dr. Wang was a corecipient of the National Award for Science and Technology Achievement in Telecommunications in 2004 on IP Quality of Service (QoS) from the China Institute of Communications. He received the InterDigital Innovation Award in 2012 and 2013. He served as a panelist/reviewer for USA NSF and Canada NSERC. He is the Vice-Chair of IEEE ComSoc Multimedia Technical Committee (2012–2014).

Nei Kato (A'03–M'05–SM'05–F'13) received the B.S. degree from the Polytechnic University, Tokyo, Japan, in 1986, and the M.S. and Ph.D. degrees in information engineering from Tohoku University, Miyagi, Japan, in 1988 and 1991, respectively.

He was a Full Professor with the Graduate School of Information Sciences, Tohoku University, in 2003. He became a Strategic Adviser to the President of Tohoku University in 2013. He has authored or coauthored more than 300 papers in peer-reviewed journals and conference proceedings. His research interests include computer networking, wireless mobile communications, satellite communications, ad hoc and sensor and mesh networks, smart grid, and pattern recognition.

Dr. Kato currently serves as a Member at Large on the Board of Governors, IEEE Communications Society, the Chair of the IEEE Ad Hoc and Sensor Networks Technical Committee, and an Area Editor of the IEEE Transactions on Vehicular Technology. Besides his academic activities, he also serves on the expert committee of the Telecommunications Council, Ministry of Internal Affairs and Communications, and as the chairperson of ITU-R SG4 and SG7, Japan. He is a Distinguished Lecturer of the IEEE Communications Society and a Fellow of the IEICE. He was the recipient of the Distinguished Contributions to Satellite Communications Award from the IEEE ComSoc, Satellite and Space Communications Technical Committee (2005), the KDDI Foundation Excellent Research Award (2012), the IEICE Communications Society Distinguished Service Award (2012), six Best Paper Awards from IEEE GLOBECOM/WCNC/VTC, and the IEICE Communications Society Best Paper Award (2012).