
FOREWORD

Special Section on IoT Sensor Networks and Mobile Intelligence

In addition to ubiquitous sensor networks and mobile networks that support the Internet of Things (IoT) era, the research and development area of “mobile sensors” is growing. Mobility technologies, including connected cars, unmanned aerial vehicles (UAV), wearable technologies, and robots, and mobile ubiquitous computing extracting valuable knowledge from collected sensor data, are growing. Also, applications related to ambient intelligence cooperated with sensing, mobility, and computing technologies through networking technology are important. Thus, research has been promoted to develop fundamental technologies, including sensing, wireless networking, data analysis, and processing technologies, as well as industrial applications that support ambient intelligence.

The technical committee on Ambient Intelligence and Sensor Networks (ASN) and the technical committee on Mobile Network and Applications (MoNA), the predecessor of the technical committee on Sensor Networks and Mobile Intelligence (SeMI), planned symposium on “Ambient Intelligence and Sensor Networks Supporting Smart Mobility: Cars and Drone as Mobility in the IoT Era” in 2017 and symposium on “Sensor Networks and Mobile Intelligence Supporting Smart Society” to create new technologies and promote research activities in various application fields. This special section was designed to further promote these research and development of the ambient intelligence with sensor networks and mobile sensors that support the IoT Era.

After a careful discussion, the editorial committee has arranged an invited paper introducing aerial wireless relay networks for emergency communications during large-scale disasters by Prof. Hiraku Okada, Nagoya University. Adding to the invited paper, this special section includes three papers selected through a rigorous review of six submissions. Their topics are wireless LAN link quality prediction of mobility robots, a wild animal detection system, and ECG-based diagnosis systems. Interestingly, all of them use machine-learning techniques.

As the guest editor-in-chief, I would like to express my sincere appreciation to all the authors for their contributions, all the reviewers, and the editorial committee members for their voluntary activities.

Special Section Editorial Committee Members

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Susumu Ishihara, Guest Editor-in-Chief

Susumu Ishihara (*Member*) is a professor in the College of Engineering, Shizuoka University, Japan. He received his B.E., M.E., and Dr. Eng. in Electronic Engineering from Nagoya University, Nagoya, Japan, in 1994, 1996, and 1999, respectively. He joined Shizuoka University in 1999. He was a visiting scholar at the University of California, Irvine in 2008 and at the University of California, Los Angeles in 2014–2015. His current research interests include design and implementation of communication protocols and services, especially for vehicular ad hoc networks, and wireless sensor networks. From 2019 to present, he is a chair of IEICE technical committee on sensor networks and mobile intelligence (SeMI).

