Editor’s Message to Special Issue of Intelligent Transportation Systems and Mobile Communication for Realizing Smart Cities

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Smart cities make full use of advanced technologies such as IT and environmental technologies to realize safe, secure and comfortable city life. This is an effort to realize a sustainable social system which is efficient and friendly to people and the environment in various fields such as transportation systems, social infrastructures, energy, medical care and others. To realize smart cities, automated driving demand buses, efficient logistics and transportation using truck platooning, cooperation of electric vehicle charging systems and solar power generation, high-precision position estimation and sensing technologies, AI enhanced in-vehicle systems, wearable devices for elderly people assistance and monitoring are actively addressed.

With regard to topics related to mobile communications and intelligent transportation systems, the Information Processing Society’s Special Interest Group on Intelligent Transportation Systems and Smart Community (ITS) and Special Interest Group on Mobile Computing and Pervasive Systems (MBL) have taken the lead and more than 170 excellent papers have been published at the groups every year. In addition, many papers related to these fields have been published at the DICOMO Symposium, which has been held annually since 1997 and has more than 200 papers every year. It is very significant for IPSJ to promote research in these fields and contribute to their developments by publishing papers related to the fields of ITS and MBL collectively.

This special issue was jointly planned by the ITS Study Group and the MBL Study Group for the purpose of promoting such research. In this special issue, we tried to improve the quality of papers by commenting from the authors’ standpoints on how to revise their papers, rather than just explaining why the papers cannot be accepted. The editor’s board committee and reviewers cooperated with the following editorial policy. 1) Rather than deciding if novelty in each paper is sufficient, we made a binary decision on whether each paper has novelty or not, and tried to accept the paper with even slight novelty by giving productive comments. 2) Rather than rejecting a paper because of imperfection, we paid attention to the strength of the paper and tried to develop it by giving good comments. 3) Even if many corrections are necessary, we gave opportunity for correction as much as possible.

This special issue has been jointly planned by SIG-ITS and SIG-MBL, with following schedule:

- Call for papers: December 2018,
- Submission deadline: April 5, 2019,
- 1st Editor’s Board Meeting: April 12, 2019,
- 2nd Editor’s Board Meeting: June 21, 2019,
- 3rd Editor’s Board Meeting: September 19, 2019.

As a result of careful deliberation on 16 submitted papers (including 4 English papers), we selected 12 papers as conditional accepted papers. At the 3rd meeting, we accepted 9 papers including 4 English ones. The acceptance rate is 56%. The breakdown of the accepted papers includes 4 location estimations, 2 deep learning applications, 2 machine learning applications, 1 security, 1 radio technology, and 1 traffic accident prevention technology. The content was appropriate for the purpose of this special issue.

In this special issue, Dr. Tomoya Kitani of Shizuoka University wrote a survey paper on R&D trends related to motorbikes, and Dr. Yusuke Fukasawa of NTT DoCoMo wrote a survey paper on machine learning in mental state estimation using smartphones. Finally, many peer reviews and publications were made in a limited amount of time, thanks to the great cooperation of the secretary, editors, reviewers, and academic staff. In addition, we would like to thank all the people who submitted the papers. Without their effort, it is not possible to publish this special issue on time.

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