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## FOREWORD

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### Special Section on Software Agent and Its Applications

An agent is intelligent software that recognizes its environment through interactions with other agents and systems, decides which action to take, and executes that action autonomously. Due to the rapid development of research on the IoT and machine learning, the applications of agent technology are quite broad. In recent years, society has become increasingly diverse and complex, and solutions based on multiple perspectives are needed. Agent technology that models each object and considers it as an active entity should therefore be useful.

In this special issue, we called for papers on a wide range of topics related to the fundamentals and applications of agent technology. This special issue was planned jointly with 2019 Joint Agent Workshops & Symposium (JAWS 2019), held in Beppu's Suginoi Hotel from September 9 to 11, 2019. JAWS is an inter-organizational event co-sponsored by the JSSST-MACC, IEICE-AI, and IEEE Computer Society Tokyo/Japan Joint Chapter; it has been held annually since 2002. JAWS 2019, which was the 18th such event, consisted of two keynote speeches, 35 oral presentations, and 40 poster presentations, as well as a students' session and a night session during which a lively exchange of information between the participants occurred.

This special issue was not limited to papers presented at JAWS 2019, but also accepted submissions from the public. We received five submissions. After careful review, we accepted two papers. The topic of both accepted papers is automated negotiations between multi agents. The papers will provide beneficial insights into recent activity in the field of software agents.

We would like to thank many people for their support in editing this special issue. In particular, we would like to thank the JAWS 2019 program committee members for their active support in reviewing the papers for the symposium and this special issue under a tight schedule. We thank them from the bottom of our hearts.

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Yuichi Sei, Guest Editor-in-Chief

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**Yuichi Sei** (*Member*) received his Ph.D. degree in information science and technology from The University of Tokyo in 2009. From 2009 to 2012 he belonged to Mitsubishi Research Institute. Currently, he is an associate professor at The University of Electro-Communications. He is also a researcher of the PRESTO program of Japan Science and Technology Agency. His research interests include agent technologies, privacy-preserving data mining, and software engineering.

