FOREWORD

Special Section on Knowledge-Based Software Engineering

The special interest group named Knowledge-Based Software Engineering (SIG-KBSE) was established in 1992 in the Institute of Electronics, Information and Communication Engineers (IEICE).

It is possible to think the software development to be a series of activities to realize human knowledge as an algorithm on the computer. SIG-KBSE offers the opportunities for discussions and the presentations concerning not only a software development method using knowledge engineering but also an actual software development. The objective of this special section is to publish and overview recent progress in the interdisciplinary area of Artificial Intelligence and Software Engineering.

SIG-KBSE meeting is held every other month. Besides publishing papers including software engineering and knowledge engineering, SIG-KBSE also supports international conferences. The Joint Conference on Knowledge-Based Software Engineering (JCKBSE) is held every two years in a European country or Russia. The 11th JCKBSE2014 was held in Volgograd, Russia in 2014 (For unstable political situation, a part of members participated with the internet conference system from several points of the world). The conference papers are published as a book of CCIS series from Springer-Verlag (Vol.466, Knowledge-Based Software Engineering).

This section was planned to include extended papers based on the presentations at JCKBSE2014 and the papers submitted for the CFP. In preparation of this special section, an Editorial Committee was organized and a CFP was distributed via IEICE transactions. 11 papers were submitted in response to the CFP (10 from Japan, 1 from Korea). After extensive review processes, 4 papers were accepted (acceptance rate is 36.4%). This shows the strictness of reviewing processes as well as high quality of accepted papers.

Finally, I would like to express my sincere appreciation and gratitude to all the authors for their contributions. Special thanks are due to the following editorial committee members and additional referees for their very considerable efforts to review the submitted papers and their assistance of preparing for this Special Section.

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Tadashi Iijima (Member) is a senior assistant professor in the department of administration engineering, faculty of science and technology at Keio University. He received B.Eng. degree, M.Eng. degree, and Ph.D. degree from Keio University in 1985, 1987, and 2006, respectively. From 1990 to 1992, he worked as a researcher at Toshiba Corporation. He joined Keio University in 1992 as research assistant. He was a chairman of SIG Knowledge-Based Software Engineering of IEICE, from May 2014 to May 2016. His research interests include object-oriented modeling, formal approach, process mining, agent technology, and agent-based simulation.