FOREWORD

Special Section on Knowledge-Based Software Engineering

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

The purpose of SIG-KBSE is providing a forum for researchers, practitioners and educators to present and discuss the most recent innovations, trends, experiences and concerns in the interdisciplinary area of Artificial Intelligence, Knowledge Engineering and Software Engineering.

SIG-KBSE has carried out two activities in addition to regular research forums. One is to organize the series of international conferences, the Joint Conference on Knowledge-based Software Engineering (JCKBSE). The main objective of the biennial conference series is to bring together researchers and practitioners to share ideas on the foundations, techniques, tools, and applications of knowledge-based software engineering theory and practice. The first conference was held in Pereslavl-Zalesskii (1994). The latest conference is the 12th JCKBSE2018 which was held in Corfu, Greece. The proceedings of JCKBSE2018 has been published as a part of the Smart Innovation, Systems and Technologies book series (SIST, volume 108), Springer-Verlag.

This special section was planned as another SIG-KBSE's activity. The call for papers was announced in July 2019. 18 research papers and one letter were submitted. After extensive review processes, 4 research paper were accepted (the acceptance rate is 21%). This shows the strictness of the reviewing process and high quality of the 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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Fumihiro Kumeno (*Member*)   is a professor of Department of Information Technology and Media Design, Nippon Institute of Technology. He received B.Eng. degree, M.Eng. degree, and Ph.D. degree from Waseda University in 1988, 1990 and 2007, respectively. From 1990 to 2011, he worked as a researcher at Mitsubishi Research Institute, Inc. He joined Nippon Institute of Technology in 2011 as an associate professor. He was a chairman of SIG Knowledge Based Software Engineering of IEICE, from May 2018 to May 2020. His research interests include software architecture, formal approach, agent technology and software engineering education/training.