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 discussion and the presentation concerning not only the software development method using knowledge engineering but also an actual development.

SIG-KBSE meeting is held every other month. Besides publishing papers including software engineering and knowledge engineering, SIG-KBSE also supports international symposiums. The Joint Conference on Knowledge-Based Software Engineering (JCKBSE) is held every other year in Eastern Europe. The first JCKBSE was held in Prelav-Zalesskii, Russia in 1994. JCKBSE96 was held in Sozopol, Bulgaria in 1996. JCKBSE98 was held in Smolenice, Slovakia in 1998. JCKBSE2000 was held in Brno, Czech in 2000. JCKBSE2002 was held in Maribor, Slovenia in 2002. JCKBSE2004 was held in Protovino, Russia in 2004. The latest JCKBSE2006 was held in Tallinn, Estonia.

This section was planned to include papers based on the presentations at JCKBSE2006 and the papers submitted for the CFP.

In presentation of this special section, an Editorial Committee was organized and a CFP was distributed via IEICE transactions. 26 papers were submitted in response to the CFP (21 from Japan, 5 from Korea). After an extensive review process, 11 papers (including one letter) were selected for this special section. This shows the strictness of reviewing process as well as the high quality of accepted papers. The topics covered in this section include DOM Subtree, Scenarios, Fault-Prone Software Modules, Use Case Diagrams, GUI, Cause Information Extraction, Ontology Development and Knowledge Acquisition.

Finally, we would like to express our sincere appreciation and gratitude to all the authors for their contributions. Special thanks are due to the following editorial committee members for their very considerable efforts reviewing the submissions and their assistance preparing for this Special Section:

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Takahira Yamaguchi (Member) is a professor at the Faculty of Science and Technology at Keio University. He received his B.E., M.E., and D.E. degrees in telecommunication engineering from Osaka University in 1979, 1981, and 1984, respectively. His research interests include Semantic Web, Ontologies, Intelligent Software Engineering and Data Mining. He is a member of IPSJ, JSAI, JSFTS, JCSS, AAAI and IEEE-CS.