
FOREWORD

Special Section on Advanced Technologies in Knowledge Media and Intelligent Learning Environment

Recent advances of Internet/computer technologies have increasingly enhanced learning on it represented by e-learning. In these learning activities, various kinds of media are used, and knowledge information that becomes available to use by integration and re-expression is handled as well as completely expressed knowledge ready to use. Therefore, various information is handled as knowledge media so that it can realize integration and re-expression of information in accordance with the change of demands in learning support. To realize advanced learning and meet diverse needs for learning support under the expansion of knowledge information, challenging research on methods to process it forms various angles such as extraction, accumulation, management, integration, and also expression has become extremely important. Simultaneously, proposal of new learning activities and research on evaluation methods has necessarily been important. Moreover, in the field of application systems, novel technologies/mechanisms to realize extensibility including the systems cooperative works, functionality, and new learning environments and services have been needed. Consequently, unique and more promising technologies placed as “knowledge media technologies” to tackle to the convergence of media, data types, systems, and intelligent learning environments using the technologies are now needed.

Based on these motivations, an editorial committee for the special section was organized to publish these new discussion items. For the call for papers, 17 papers were submitted to this special section, and 3 of them are accepted for publication through the review process. The accepted papers include interesting topics in the field of the knowledge media and intelligent learning environment. We believe that these papers provide useful information to readers who are interested in this field and stimulate the future international research activities.

Finally, the editorial committee would like to express their sincere appreciation to all authors for their valuable contributions and to all reviewers for their cooperation in completing the review process under a tight schedule.

Editorial Board for this Special Section

Guest Editorial Manager: Shoichi Nakamura (Fukushima Univ.), Minoru Nakayama (Tokyo Tech.)

Guest Associate Editors: Toshio Okamoto (UEC), Kazuhide Kanenishi (Tokushima Univ.), Tomoko Kojiri (Nagoya Univ.), Hitoshi Sasaki (Takushoku Univ.), Hideyuki Suzuki (Ibaraki Univ.), Kiyoshi Nakabayashi (Chiba Inst. of Tech.), Naoto Nakamura (Chiba Inst. of Tech.), Shinobu Hasegawa (JAIST), Tsukasa Hirashima (Hiroshima Univ.), Tatsunori Matsui (Waseda Univ.), Yukihiro Matsubara (Hiroshima City Univ.), Youzou Miyadera (Tokyo Gakugei Univ.)

Setsuo Yokoyama and Toyohide Watanabe, Guest Editors-in-Chief

Setsuo Yokoyama (*Member*) was born in 1945. He received B.Sc, M.Sc and D.Sc degrees in physics from school of science and engineering at Waseda University in 1968, 1970 and 1974, respectively. He took up his post as a research assistant at Tokyo Gakugei University in 1974 and then promoted to a professor at the University. Currently, he is a Professor Emeritus at the University. He was a visiting scholar at Stanford University in U.S.A. from 1992 to 1993. His research interests include educational technology, especially application of information technology in education. He is a member of the IPSJ, JSiSE and JSET.



Toyohide Watanabe (*Fellow*) received B.S., M.E., and Ph.D. degrees from Kyoto University in 1972, 1974, and 1983, respectively. In 1987, he was an associate professor in the Department of Information Engineering, Nagoya University and became a professor in 1994. In 2003, he moved as a professor in the Department of Systems and Social Informatics, Graduate School of Information Science, Nagoya University. His research interests include knowledge management of personal intelligent activity, computer supported collaborative learning, social environment simulation, spatiotemporal models, and geographic information systems. He is a member of ACM, AAAI, AACE, KES International, and IEEE-CS.

