Preface

The papers of this Special Issue comprise a selection of contributions to the International Symposium on Discrete Algorithms and Optimization which was held on 4 March 2004, in Kyoto, Japan to celebrate the retirement of Professor Toshihide Ibaraki from Kyoto University. The symposium was very successful; the number of participants was 54. After the symposium, we sent invitations to participants as well as to those who had studied under the supervision of Professor Ibaraki, and to those who worked with him, asking them to submit a paper to this Special Issue.

Seventeen papers were collected from which 15 papers were finally accepted. The papers in this issue cover a wide range of topics in discrete mathematics and applications, such as graph theory, graph algorithms, game theory, vehicle scheduling, geometric optimization, approximation algorithm, Boolean algebra, and so forth.

It is of our great pleasure and honor to publish this Special Issue. Professor Toshihide Ibaraki has made distinguished scientific contributions for more than forty years in the fields of combinatorial optimization and discrete mathematics. In particular, his contributions in automata, branch and bound method, graph algorithm, resource allocation, Boolean algebra, game theory, database theory, scheduling and metaheuristics have been widely known. He has written two books in English, and contributed chapters to several books and handbooks. He has also written books and textbooks in Japanese, about 300 papers in international journals and conferences, and 60 papers in domestic journals in Japanese. In addition, he has made keynote and plenary talks at many international conferences including the SIAM Conference on Optimization, 2002, and the sixth Conference of APORS (Asia-Pacific Operations Research Societies), 2003.

He has been an editor of many international journals such as Discrete Applied Mathematics, Journal of Combinatorial Optimization, Journal of Heuristics, Journal of Global Optimization, European Journal of Operational Research, Pacific Journal of Optimization, International Journal of Advanced Robotic Systems, and Discrete Optimization. Recently, he acted as an organizing committee chair of two conferences, the fifth Metaheuristics International Conference (MIC2003) and the 14th International Symposium on Algorithm, both held in Kyoto.

He received several prizes and awards including the Yonezawa Prize from the Institute of Electronics, Information and Communication Engineers (IEICE) in 1970 and the best paper award from the ORSJ in 1973, the Editors' Choice of Discrete Applied Mathematics (three papers in 1999, one paper in 2000 and one paper in 2003), JAMS Prize from the International Society for Mathematical Sciences in 2001. He is a fellow of the IEICE, the ORSJ, the Association for Computing Machinery (ACM), and the Information Processing Society of Japan (IPSJ).

He is also well known as an excellent educator and he has supervised the development of many good researchers. All of his students appreciated his warmth as well as his strict attitude towards research.

In 2004, after retirement, Professor Toshihide Ibaraki became Professor Emeritus of Kyoto University, and he became a Professor of Kwansei Gakuin University. He is still very active in research and education. We sincerely hope that he will continue to carry out his research activities for a very long time. Finally, the editors of this Special Issue would like to express deep appreciation of the authors for the quality of their contributions, and the referees for their careful and insightful reviews. We also would like to express our gratitude to Professor Peter L. Hammer, Editor-in-Chief, and the staff for their invaluable support and assistance.

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