## **FOREWORD**

## **Special Section on Discrete Mathematics and Its Applications**

Discrete mathematics has been applied to various areas in computer science and engineering, and proved to be important as their foundation. This special section is the thirty-first in a series that appears in IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, aiming at reviewing the latest progress in discrete mathematics and its applications and contributing to the further development in the research field.

The 2021 special section includes eighteen full papers, which cover a variety of topics in discrete mathematics including algorithms and data structures, coding theory, cryptography and information security, and graphs and networks. These papers were selected from twenty-six submissions with careful reviews by technical experts. We would like to express our sincere appreciation to all the authors for their valuable contributions. We also thank the anonymous reviewers for their voluntary work. As the Guest Editor-in-Chief of this special section, I would like to express my deep thanks to editorial committee members for their considerable efforts. Also, my sincere thanks go to both guest editors.

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**Kei Uchizawa** (*Member*) received his B.E., M.S. and Ph.D. degrees from Tohoku University in 2003, 2005 and 2008, respectively. He was an assistant professor of Graduate School of Information Sciences at Tohoku University from 2008 to 2012. He is an associate professor of Graduate School of Science and Engineering at Yamagata University. His research interests include computational complexity, circuit complexity and neural networks.

