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Volume 1121

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Hoai An Le Thi · Hoai Minh Le ·
Tao Pham Dinh · Ngoc Thanh Nguyen
Editors

Advanced Computational Methods for Knowledge Engineering

Proceedings of the 6th International Conference on Computer Science, Applied Mathematics and Applications, ICCSAMA 2019

Springer

Editors
Hoai An Le Thi
Computer Science and Applications
Department LGIPM
University of Lorraine
Metz Cedex 03, France

Hoai Minh Le
Computer Science and Applications
Department LGIPM
University of Lorraine
Metz Cedex 03, France

Tao Pham Dinh
Laboratory of Mathematics
National Institute for Applied Sciences
Saint-Étienne-du-Rouvray Cedex, France

Ngoc Thanh Nguyen
Department of Information Systems
Wroclaw University of Science
and Technology
Wrocław, Poland

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Preface

ICCSAMA 2019, held on December 19–20, 2019, in Hanoi, Vietnam, was the sixth event of the series of international scientific conferences on computer science, applied mathematics and applications. The conference is co-organized by the Computer Science and Applications Department, LGIPM, University of Lorraine, France; the Institute for research and applications of optimization (VinOptima), VinTech, Vingroup; the International School, Vietnam National University, Hanoi, Vietnam; the Laboratory of Mathematics, National Institute for Applied Sciences-Rouen, France, and the Department of Information Systems Wroclaw University of Science and Technology, Poland.

The aim of ICCSAMA 2019 is to bring together leading academic scientists, researchers and scholars to discuss and share their newest results in the fields of computer science, applied mathematics and their applications. These two fields are very close and related to each other. It is also clear that the potentials of computational methods for knowledge engineering and optimization algorithms are to be exploited, and this is an opportunity and a challenge for researchers.

For the ICCSAMA 2019 edition, the Program Committee received more than 75 submissions. Each paper was peer-reviewed by at least two members of the International Program Committee and the International Reviewer board. After the review process, 37 high-quality papers were selected for oral presentation and publication in this book. The selected papers cover several topics in applied mathematics and computer science, and they are divided into four parts: nonconvex optimization, DC programming and DCA and applications; data mining and data processing; machine learning methods and applications, and knowledge information and engineering systems. Extended versions of selected papers will be considered for publication in post-conference special issues including *Journal of Global Optimization*.

ICCSAMA 2019 was attended by about 100 scientists and practitioners. The conference program is composed of four plenary lectures and one semi-plenary lecture of world-class speakers and the oral presentation of 37 selected papers as well as several selected abstracts.

ICCSAMA 2019 has created numerous interesting interactions between two communities computer science and applied mathematics, and we hope that researchers and practitioners can find here many inspiring ideas and useful tools and techniques for their works. Many such challenges are suggested by particular approaches and models presented in individual chapters of this book.

We would like to thank the chairs and the members of International Program Committee as well as the reviewers for their hard work in the review process, which helped us to guarantee the highest quality of the selected papers for the conference. We also would like to express our thanks to the keynote speakers for their interesting and informative talks. Our sincere thanks go to all the authors for their valuable contributions and to the other participants who enriched the conference success.

We wish to thank all members of the Organizing Committee for their excellent work to make the conference a success.

We cordially thank Prof. Janusz Kacprzyk and Dr. Thomas Ditzinger from Springer for their help in publishing this book.

Finally, we would like to express our special thanks to the main sponsor VinTech City, VinTech, VinGroup for their considerable support.

December 2019

Hoai An Le Thi
Hoai Minh Le
Tao Pham Dinh
Ngoc Thanh Nguyen

Organization

ICCSAMA 2019 is co-organized by the Computer Science and Applications Department, LGIPM, University of Lorraine, France, the Institute for research and applications of optimization (VinOptima), VinTech, Vingroup, and in collaboration with the International School, Vietnam National University, Hanoi, Vietnam.

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