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Advanced Computational Methods for Knowledge Engineering

Proceedings of the 2nd International Conference on Computer Science, Applied Mathematics and Applications (ICCSAMA 2014)

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Preface

This volume contains papers presented at the 2^{nd}*International Conference on Computer Science, Applied Mathematics and Applications* (ICCSAMA 2014) held on 8-9 May, 2014 in Budapest**,** Hungary. The conference is co-organized by Analysis, Design and Development of ICT systems (AddICT) Laboratory, Budapest University of Technology and Economics, Hungary, Division of Knowledge Management Systems, Wroclaw University of Technology, Poland, and Laboratory of Theoretical & Applied Computer Science, Lorraine University, France in cooperation with IEEE SMC Technical Committee on Computational Collective Intelligence.

The aim of ICCSAMA 2014 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. After the peer review process, 30 papers by authors from Algeria, Austria, Finland, France, Germany, Hungary, India, Israel, Japan, Republic of Korea, Poland, Slovakia, United Kingdom and Vietnam have been selected for including in this proceedings. The presentations of 30 have been partitioned into 7 sessions: *Advanced Optimization Methods and Their Applications, Queueing Models and Performance Evaluation, Software Development and Testing, Computational Methods for Mobile and Wireless Networks, Computational Methods for Knowledge Engineering, Logic Based Methods for Decision Making and Data Mining, and Nonlinear Systems and Applications.*

The clear message of the proceedings is 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. It is observed that the ICCSAMA 2013 and 2014 clearly generated a significant amount of interaction between members of both communities on Computer Science and Applied Mathematics. The intensive discussions have seeded future exciting development at the interface between computational methods, optimization and engineering.

The works included in this proceedings can be useful for researchers, Ph.D. and graduate students in Optimization Theory and Knowledge Engineering fields. It is the hope of the editors that readers can find many inspiring ideas and use them to their research. Many such challenges are suggested by particular approaches and models presented in the proceedings.

We would like to thank all authors, who contributed to the success of the conference and to this book. Special thanks go to the members of the Steering and Program Committees for their contributions to keeping the high quality of the selected papers. Cordial thanks are due to the Organizing Committee members for their efforts and the organizational work.

Finally, we cordially thank Springer for supports and publishing this volume.

We hope that ICCSAMA 2014 significantly contributes to the fulfilment of the academic excellence and leads to greater success of ICCSAMA events in the future.

May 2014

Tien Van Do
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