

Advances in Intelligent and Soft Computing

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Fuzzy Information and Engineering 2010

Volume 1

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Preface

This book is the proceedings of the 5th Annual Conference on Fuzzy Information and Engineering (ACFIE2010) from Sep. 23-27, 2010 in Huludao, China. The conference proceedings is published by Springer-Verlag (Advances in Intelligent and Soft Computing, ISSN: 1867-5662).

This year, we have received more than 191 submissions. Each paper has undergone a rigorous review process. Only high-quality papers are included. The 5th Annual Conference on Fuzzy Information and Engineering (ACFIE2010), built on the success of previous conferences, the ACFIE2005 (Guangzhou, China), is a major symposium for scientists, engineers and practitioners in China to present their updated results, ideas, developments and applications in all areas of fuzzy information and engineering. It aims to strengthen relations between industry research laboratories and universities, and to create a primary symposium for world scientists in fuzzy fields as follows:

- 1) The mathematical theory of fuzzy systems;
- 2) Fuzzy logic, systems and control;
- 3) Fuzzy optimization and decision-making;
- 4) Fuzzy information, identification and clustering;
- 5) Fuzzy engineering application and soft computing method; etc.

This book contains 89 papers, divided into five main parts:

In Section I, we have 15 papers on “the mathematical theory of fuzzy systems”.

In Section II, we have 15 papers on “fuzzy logic, systems and control”.

In Section III, we have 24 papers on “fuzzy optimization and decision-making”.

In Section IV, we have 17 papers on “fuzzy information, identification and clustering”.

In Section V, we have 18 papers on “fuzzy engineering application and soft computing method”.

In addition to the large number of submissions, we are blessed with the presence of eight renowned keynote speakers and several distinguished panelists and we shall organize workshops.

On behalf of the Organizing Committee, we appreciate Liaoning Technology University in China, Fuzzy Information and Engineering Branch of China Operation Research Society for sponsorship; Fuzzy Information and Engineering Branch of International Institute of General Systems Studies China Branch (IIGSS-GB) Co-Sponsorships. We are grateful to the supports coming from the two international magazines published by Springer-Verlag GmbH: Fuzzy Optimization & Decision Making (FODM) and Fuzzy Information & Engineering. We are showing gratitude to the members of the Organizing Committee, the Steering Committee, and the Program Committee for their hard work. We wish to express our heart-felt appreciation to the keynote and panel speakers, workshop organizers, session chairs, reviewers, and students. In particular, I am thankful to Wei-wei Fu, Tao Song and Jian Han, who have contributed a lot to the development of this issue. Meanwhile, we thank the publisher, Springer, for publishing the ACFIE 2010 proceedings as J. Advances in Intelligent and Soft Computing (AISC) and J. Advances in Soft Computing (ASC)(ASC 40 in ICFIE'07, ASC 54 in ICFIE'08 and AISC 62 in ICFIE'09 published by the Springer Publisher has been included into ISTP). Finally, we appreciated all the authors and participants for their great contributions that made this conference possible and all the hard work worthwhile.

September 2010 in Huludao,
P.R. China

Bing-yuan Cao
Si-zong Guo

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