

Advances in Soft Computing

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Prof. Janusz Kacprzyk
Systems Research Institute
Polish Academy of Sciences
ul. Newelska 6
01-447 Warsaw
Poland
E-mail: kacprzyk@ibspan.waw.pl

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ISBN 978-3-540-88913-7

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Fuzzy Information and Engineering

Volume 1



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Prof. Bing-yuan Cao
Guangzhou University
Guangzhou Higher Education
Mega Center
230 Wai Huan Xi Road
510006, China
E-mail: caobingy@163.com,
bycao@gzhu.edu.cn

Cheng-yi Zhang
Department of Mathematics
Hainan Normal University
Haikou, Hainan 571158
P.R. China
E-mail: chengyizh@hainnu.edu.cn

Tai-fu Li
Department of Electronic Information
Engineering
Chongqing University of Science &
Technology
Chongqing 401331
P.R. China
E-mail: Litaifu@cqit.edu.cn,
litaifu@tom.com

ISBN 978-3-540-88913-7

e-ISBN 978-3-540-88914-4

DOI 10.1007/978-3-540-88914-4

Advances in Soft Computing

ISSN 1615-3871

Library of Congress Control Number: 2008938158

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Typeset & Cover Design: Scientific Publishing Services Pvt. Ltd., Chennai, India.

Printed in acid-free paper

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Preface

This book is the proceedings of the Third Annual Conference on Fuzzy Information and Engineering (ACFIE2008) from Dec. 5-10, 2008 in Haikou, China. The conference proceedings is published by Springer-Verlag (Advances in Soft Computing, ISSN: 1615-3871).

This year, we have received 155 submissions. Each paper has undergone a rigorous review process. Only high-quality papers are included. The Third Annual Conference on Fuzzy Information and Engineering (ACFIE2008), 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) Fuzzy intelligence, neural networks and optimal;
- 2) Fuzzy algebra;
- 3) Fuzzy analysis;
- 4) Fuzzy systems and logic;
- 5) Fuzzy topology and measure;
- 6) Fuzzy probability, control, forecasting and decision-making;
- 7) Fuzzy clustering and fuzzy algorithms;
- 8) Application in fuzzy sets;
- 9) Rough sets and its application; etc.

This book contains 80 papers, divided into nine main parts:

In Section I, we have 9 papers on “fuzzy intelligence, neural networks and optimal”.

In Section II, we have 11 papers on “fuzzy algebra”.

In Section III, we have 9 papers on “fuzzy analysis”.

In Section IV, we have 9 papers on “fuzzy systems and logic”.

In Section V, we have 9 papers on “fuzzy topology and measure”.

In Section VI, we have 7 papers on “fuzzy probability, forecasting and decision-making”.

In Section VII, we have 8 papers on “fuzzy clustering and fuzzy algorithms”.

In Section VIII, we have 11 papers on “application in fuzzy sets”.

In Section IX, we have 7 papers on “rough sets and vague sets”.

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

On behalf of the Organizing Committee, we thank Hainan Normal 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), Math Society of Hainan and International Fuzzy Mathematics Institute in USA for Co-Sponsorships. We are grateful to the supports coming from, California Polytechnic State University in USA, and Industrial Engineering and Operations Research of North Carolina State University in USA and Springer-Verlag GmbH publish the international magazine: 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 Prof S.Q Ma, who has contributed a lot to the development of this issue. Meanwhile, we thank the publisher, Springer, for publishing the ACFIE 2008 proceedings as J. Advances in Soft Computing (ASC) (ASC 40 in ICFIE’08 published by the Springer Publisher has been included into ISTP). Finally, we are appreciated for all the authors and participants for their great contributions that made this conference possible and all the hard work worthwhile.

August 2008

Bing-yuan Cao
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