

Advances in Intelligent and Soft Computing

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ISBN 978-3-642-14879-8

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Fuzzy Information and Engineering 2010

Volume 1

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ISBN 978-3-642-14879-8

e-ISBN 978-3-642-14880-4

DOI 10.1007/978-3-642-14880-4

Advances in Intelligent and Soft Computing

ISSN 1867-5662

Library of Congress Control Number: 2010931859

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

Printed on acid-free paper

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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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Contents

The Mathematical Theory of Fuzzy Systems

On the Completion of L-Fuzzy Topological Vector Spaces ...	1
<i>Lan Shu, Yuebo Zha</i>	
Strong ω-Compactness in $L\omega$-Spaces	7
<i>Wei-min He</i>	
(λ, μ)-Fuzzy Sublattices and (λ, μ)-Fuzzy Subhyperlattices	17
<i>Yuming Feng, Huiling Duan, Qingsong Zeng</i>	
$(\in, \in \vee q_{(\lambda, \mu)})$-Fuzzy h-Ideals of Hemirings	27
<i>Zuhua Liao, Miaohan Hu, Mingli Rui, Shu Cao, Zhenyu Liao</i>	
Several Equivalent Conditions of Fuzzy Subgroups of Some Groups	41
<i>Zhaohao Wang, Lan Shu</i>	
The Characters of the Complex Number-Valued Fuzzy Measurable Function	49
<i>Ma Shengquan, Wang Qiang</i>	
The Solution Algorithm of Complex Fuzzy-Valued Function Integral by Fuzzy Structured Element	55
<i>Jing Sun, Si-zong Guo</i>	
Discussion on Natural Fuzzy Extension and Joint Fuzzy Extension of the Rational Function	65
<i>Shihui Wang, Sizong Guo</i>	
$(s, t]$-Intuitionistic Convex Fuzzy Sets	75
<i>Zhang Cheng, Xiao Panzi, Wang Sen, Liu Xiaozhen</i>	

Fuzzy-Valued Ordinary Differential Equation	85
<i>Bing-yuan Cao</i>	
Comparison between Some Approaches to Solve First Order Linear Fuzzy Differential Equation	95
<i>Wang Lei, Li Na</i>	
Separability Extension of Right Twisted Weak Smash Product	103
<i>Yan Yan, Lihui Zhou</i>	
Quantity Change Theorem and Quality Change Theorem	109
<i>Shouyu Chen</i>	
Fuzzy Value Function's Curvilinear and Surface Integral Base on Fuzzy Structured Element Method (I) — Fuzzy-valued Function's Curvilinear Integral	117
<i>Guo Sizong, Han jian, Chen Changhua</i>	
Fuzzy Value Function's Curvilinear and Surface Integral Base on Fuzzy Structured Element Method (II) — Fuzzy-Valued Function's Surface Integral	129
<i>Guo Sizong, Han jian, Chen Changhua</i>	
 Fuzzy Logic, Systems and Control	
Robust Absolute Stability Analysis for Uncertain Fuzzy Neutral Systems	139
<i>Xiuyong Ding, Lan Shu, Changcheng Xiang</i>	
Solving Fully Fuzzy Systems by Fuzzy Structured Element Method	149
<i>Xiaohua Peng, Xinghan Tu</i>	
Solving the System of Fuzzy Polynomial Equations	161
<i>Xinghan Tu, Xiaohua Peng</i>	
Design of Fuzzy Control System with Optimal Guaranteed Cost for Planar Inverted Pendulum	169
<i>Miao Zhihong, Wang Jiayin, Li Zhihui</i>	
An Intelligent VCR Addition Computing without Both of Overflowing and Perturbation Motion	181
<i>Qiusun Ye</i>	
A Solving Method of Fuzzy Linear System's Equilibrium Point	189
<i>Jian-bing Gao, Si-zong Guo</i>	

An Immune Based Multi-parameter Optimization for Intelligent Controller	199
<i>Yu-ling Pei, Ren-chao Qin</i>	
An Intelligent-Fusion Control Strategy for Industrial Complex Process	209
<i>Wei Huang, Zhi Yang</i>	
Sliding-Mode Control for Track of Swarm Behavior	217
<i>Xuezhi Mao, Yong Xu, Jianping Liu, Xiaoyun Yue</i>	
Application of Fuzzy Algorithm in Ingredient Weighing Control System	227
<i>Hao Wang, Si-Jing Feng, Guo-Quan Liu</i>	
Fuzzy Control of Double-Layer Spherical Shell Structure under Seismic Response	235
<i>Zhixiang Yin, Aihong Wang</i>	
The Fuzzy Dispatch Strategy Based on Traffic Flow Mode for EGCS	245
<i>Chao-hua Ao, Zhi Yang</i>	
Intelligent Auto-tracking System of Water Rushing Slag for Casting House	259
<i>Hui Huang, Jian-chao Bi</i>	
A Kind of Center of Gravity Fuzzy System	269
<i>Dairong Wang, Xuehai Yuan, Hongxing Li</i>	
Reliability Analysis of Random Fuzzy Repairable Series System	281
<i>Ying Liu, Xiaozhong Li, Guanglei Yang</i>	
Fuzzy Optimization and Decision-Making	
Research on the Effectiveness Evaluation of CEEUSRO Cooperation Based on Fuzzy Integral	297
<i>Manhui He, Jiaoping Yang, Chong Jia</i>	
Fuzzy Linear Programming with Possibility and Necessity Relation	305
<i>Hongxia Li, Zengtai Gong</i>	
The Optimization Approach for Traffic Rescue Resource Dispatch on Expressway Based on Fuzzy Programming	313
<i>Canghai Zhu, Xinghua Li, Gan Chai</i>	

Axiomatization of Fuzzy Core in Games with Fuzzy Coalition	327
<i>Hong-xia Sun, Qiang Zhang</i>	
Method for Solving the Fuzzy Matrix Game Based on Structured Element	335
<i>Guimei Li, Sizong Guo, Qian Zhang</i>	
Fuzzy Super-Efficiency DEA Model and Its Application: Based on Fuzzy Structured Element	345
<i>Jiaoping Yang, Hongxia Zhao</i>	
2-Tuple Linguistic Fuzzy ISM and Its Application	353
<i>Guoqiang Xiong, Ling Li, Jiantao Hao</i>	
Stochastic Single Machine Scheduling to Minimize the Weighted Number of Tardy Jobs	363
<i>Yang Li, Rongxi Chen</i>	
Discussion and Applications on the Model of Moderate Analysis	369
<i>Shuying Liu, Yang Yang, Lixia Niu</i>	
Fuzzy Portfolio Model with Transaction Cost Based on Downside Risk Measure	377
<i>Ruo-ning Xu, Xiao-yan Zhai</i>	
Fuzzy Structured Element Algorithm of System Reliability with Fuzzy Parameter	385
<i>Yang Yang, Sizong Guo, Qian Zhang, Xu Cao</i>	
Fuzzy Comprehensive Evaluation on the Failure Mode Having Initial Imperfection Shell	395
<i>Chengye Zheng, Zhixiang Yin</i>	
Structured Element of Intuitionistic Fuzzy Multiattribute Decision-Making Applied in the Evaluation of Digital Library in Universities	405
<i>Jinhui Hu, Xichun Zhang, Yi Chen, Caichun Wang</i>	
Fuzzy Decision of Enterprise Human Resources Planning under Demand Exceeding Supply	411
<i>Qing Wang, Lijun Yan</i>	
Evaluation Model of Credibility of E-Commerce Website Using Fuzzy Multi-Attribute Group Decision Making: Based on Fuzzy Structured Element	417
<i>Hongxia Zhao, Jiaoping Yang, Jun Wan</i>	

A Class of Mortgage Insurance Pricing	425
<i>Yingqiu Li, Zhonghui Zheng, Xiaobing Yan, Yue Yin</i>	
Study of Evaluating Web-Based Courses Based on FAHP	435
<i>Hua-hu Xing</i>	
Vague Sets Based Researches on Natural Rubber Species Optimization Evaluation	445
<i>Jiang Jun, Li Zhuang, Wang Hongxu, Guo Jianchun</i>	
Groundwater Quality Evaluation Based on Fuzzy Comprehensive Method	455
<i>Jianping-Chen, Liping-Lv, Mingyu-Wang</i>	
Cleaner Production Evaluation Method-Fuzzy Math Method	463
<i>Dao-han Wang, Su-zhen Yao</i>	
Optimization Analysis of a Spherical Shell of Schwedler Based on a Parameter Fuzzy Evaluation	471
<i>Zhixiang Yin, Cuijiao Kang</i>	
Fuzzy Synthetic Evaluation of Gas Station Safety	481
<i>Xiaohua Hao, Xiao Feng</i>	
A Linear Fuzzy Comprehensive Assessment Model with Prominent Impact Factor	487
<i>Xue-yan Xu, Ci-yuan Xiao, Xue Wu</i>	
Fuzzy Comprehensive Evaluation Applied in Tourism Enterprises Core Competition	493
<i>Zhan Li, Deng Xidong, Hu Shan</i>	
 Fuzzy Information, Identification and Clustering	
Non-optimum Analysis Approach to Incomplete Information Systems	501
<i>Lihua Duan, Ping He</i>	
Fuzzy Granulation Based Forecasting of Time Series	511
<i>Fangmin Wu, Yang Li, Fusheng Yu</i>	
Strategy for Improving Shared Mental Model in Information Systems Integration Project Based on Knowledge Complementarity	521
<i>Bihai Zou, Baosheng Zhang</i>	

Measurement of Knowledge Granularity and Relationship between the Digital Features about Knowledge Divided	529
<i>Lei Zhao, Mingqing Zhao, Yang Zhao</i>	
Relationships among Fuzzy Entropy, Similarity Measure and Distance Measure of Intuitionistic Fuzzy Sets	539
<i>Yinchao Lv, Sizong Guo</i>	
An Improved Algorithm of Unbalanced Data SVM	549
<i>Bing Zhou, Minghu Ha, Chao Wang</i>	
An Efficient Successive Iteration Partial Cluster Algorithm for Large Datasets	557
<i>Desen Hou, Yundong Gu</i>	
Ant Spatial Clustering Based on Fuzzy IF–THEN Rule	563
<i>Yingxian Chen, Mingfeng Han, Huawei Zhu</i>	
A Fast Global Fuzzy Clustering Algorithm for the Chemical Gray Box Modeling	571
<i>Wang Li, Li Dong, Jing Tao</i>	
FKG System Model Based on Second-Order Differential and Its Application in Stock Prediction	581
<i>Kaiqi Zou, Shigang Liu</i>	
Prediction of Floor Water Bursting Based on Combining Principal Component Analysis and Support Vector Machine	591
<i>Beizhan Liu, Liang Bing</i>	
The Mass Concrete Temperature Simulation Analysis with Fuzzy Factors	599
<i>Liu Haiqing, Wang Jinli, Wang Guijun</i>	
Fuzzy Morphology Based Feature Identification in Image Processing	607
<i>Xiaoyi Yang</i>	
Study on Sign Language Recognition Fusion Algorithm Using FNN	617
<i>Xiaoyi Yang</i>	
Fuzzy Variable Classified Method and Its Application in Basin Floods	627
<i>Min Li, Shou-yu Chen</i>	

Layering and Enveloping: Simplified Algorithm with Balancing Loop Fuzzy Petri Net	637
<i>Zhou Kai-qing, Yue Xiao-bo, Pan Xiao-hai, Tang Ming, Fan Zhou</i>	
Study of Mean-Entropy Models for Key Point Air Defense Disposition	647
<i>Yu Wang, Li-ping Pan</i>	
 Fuzzy Engineering Application and Soft Computing Method	
Rough Interval Valued Vague Sets in Pawlak Approximation Space	657
<i>Yonghong Shen</i>	
A Novel Approach Based on Fuzzy Rough Sets for Web Query System	667
<i>Jinghua Han, Gang Liu</i>	
Research of Micro-seismic Signal Extraction Method Based on Rough Set	675
<i>Chang-peng Ji, Mo Gao</i>	
Application and Design of MEDS Based on Rough Set Data Mining Rule	683
<i>Hai-chang Luo, Yu-bin Zhong</i>	
An Improved $GM(1,1)$ Model of Integrated Optimizing Its Background Value and Initial Condition	693
<i>Zhao Yu-zhe, Wu Chun-you</i>	
Discussions of the Mathematical Mechanism for Constructing the GM (1, 1) Model	705
<i>Yanke Bao</i>	
Constructing Vague Environment	711
<i>Li Guxin, Wang Hong-xu, Zhang Chengyi</i>	
Fuzzy Finite Element Analysis for Joints of CFST Beam-Column	717
<i>Shuxian Liu, Xiaogang Wei, Xiaoli Wei</i>	
The Application of the BP Neural Network in the Nonlinear Optimization	727
<i>Chunsheng Dong, Liu dong, Mingming Yang</i>	

Application of Neural Network in Prediction for Self-compaction Concrete	733
<i>Wang Jin-li, Liu Hai-qing</i>	
Pneumonia Incidence Rate Predictive Model of Nonlinear Time Series Based on Dynamic Learning Rate BP Neural Network	739
<i>Ma Liang-liang, Tian Fu-peng</i>	
Optimizing Single Depot Heterogeneous Fleet Vehicle Routing Problem by Improved Genetic Algorithm	751
<i>Guo Haixiang, Zhu Kejun, Li Lanlan, Yang Juan</i>	
Displacements Back Analysis for Soft Pit Excavation Based on Genetic Algorithms	763
<i>Zhenwei Wang, Jianguo wang, Chunhui Zhang, Shoujun Du, Zhe Hao</i>	
Personalized Information Service System Based on Multi-agent	769
<i>Jiao Wei-wei, Sun Tie-li, Li Xin, Xu Lin-na</i>	
Stability with Impulsive Delay Predator-Prey System	777
<i>Jinghua Han, Gang Liu</i>	
The Simulation and Analysis of Total Amount of Medical Insurance Claims Based on Countable Fuzzy Cardinal Number and Its Algorithms	783
<i>Yefu Kou, Hongjun Li, Li Jia</i>	
Research on Coordinated Development of “Higher Education-Economy” Composite System of Heilongjiang Province	793
<i>De-li Li, Ting-ting Zhang, Wei Wang</i>	
An Inexact Algorithm Based on a GA for Multi-item Fuzzy EOQ Model	801
<i>Wei-yi Qian</i>	
Author Index	811