Theoretical and Practical Advancements for Fuzzy System Integration

Part of the Advances in Computational Intelligence and Robotics Book Series

Deng-Feng Li (Fuzhou University, China)

Description:

In real management situations, uncertainty is inherently present in decision making. As such, it is increasingly imperative to research and develop new theories and methods of fuzzy sets.

*Theoretical and Practical Advancements for Fuzzy System Integration* is a pivotal reference source for the latest scholarly research on the importance of expressing and measuring fuzziness in order to develop effective and practical decision making models and methods. Features coverage on an expansive range of perspectives and topics, such as fuzzy logic control, intuitionistic fuzzy set theory, and defuzzification.

Readers:

This book is ideally designed for academics, professionals, and researchers seeking current research on theoretical frameworks and real-world applications in the area of fuzzy sets and systems.

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Topics Covered:

- Analytical Hierarchy Process (AHP)
- Defuzzification
- Fuzzy Logic Control
- Intuitionistic Fuzzy Set Theory
- Manufacturing System Applications
- Multi-Attribute Decision Making (MADM)
- Performance Estimation

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Deng-Feng Li was born in 1965. He received the B.Sc. and M.Sc. degrees in applied mathematics from the National University of Defense Technology, Changsha, China, in 1987 and 1990, respectively, and the Ph.D. degree in system science and optimization from the Dalian University of Technology, Dalian, China, in 1995. From 2003 to 2004, he was a Visiting Scholar with the School of Management, University of Manchester Institute of Science and Technology, Manchester, U. K. He is currently a “Minjiang Distinguished” Professor with the School of Economics and Management, Fuzhou University, Fuzhou, China. He has authored or coauthored more than 300 journal papers and six monographs. He has coedited one proceeding of the international conference and won 23 academic achievements and awards such as Chinese State Natural Science Award and 2013 IEEE Computational Intelligence Society IEEE Transactions on Fuzzy Systems Outstanding paper award. His current research interests include game theory, fuzzy decision analysis, group decision making, fuzzy game theory, supply chain, fuzzy sets and system analysis, fuzzy optimization, and differential game. He is Editor-in-chief (or Associate Editors) and Editors of several international journals.