Handbook of Research on Fuzzy and Rough Set Theory in Organizational Decision Making

Part of the Advances in Business Strategy and Competitive Advantage Book Series

Arun Kumar Sangaiah (VIT University, India), Xiao-Zhi Gao (Aalto University, Finland) and Ajith Abraham (MIR Labs, India)

Description:

Soft computing techniques are innovative tools that use nature-inspired algorithms to run predictive analysis of industries from business to software measurement. These tools have gained momentum in recent years for their practicality and flexibility.

The Handbook of Research on Fuzzy and Rough Set Theory in Organizational Decision Making collects both empirical and applied research in the field of fuzzy set theory, and bridges the gap between the application of soft computational approaches and the organizational decision making process.

Readers:

This publication is a pivotal reference for business professionals, IT specialists, software engineers, and advanced students of business and information technology.

ISBN: 9781522510086

Release Date: October, 2016

Copyright: 2017

Pages: 410

Topics Covered:

- Business Intelligence
- Business Software Management
- Data Mining Algorithms
- E-business
- E-governance
- Knowledge-based analysis
- Nature-Inspired Computing
- Personnel Evaluation
- Process Mining
- Sales Forecasting

Hardcover + Free E-Access: $275.00

E-Access + Free Hardcover: $275.00

Order Information
Phone: 717-533-8845 x100
Toll Free: 1-866-342-6657
Fax: 717-533-8661 or 717-533-7115
Online Bookstore: www.igi-global.com
Table of Contents

Foreword

Preface

Acknowledgment

Chapter 1
Fuzzy Based Querying Approach for Multidimensional Big Data Quality Assessment
Pradheep Kumar K, BITS Pilani, India
Venkata Subramanian D, Hindustan University, India

Chapter 2
Fuzzy Clustering based Intelligent and Secured Energy Aware Routing
Selvakumar Kalamanathan, CEG, Anna University, India
SaiRamesh Lakshmanan, CEG, Anna University, Chennai, India
Kannan Arputharaj, CEG, Anna University, Chennai, India

Chapter 3
Fusion of Fuzzy MCDM Approaches for Discriminating Risk with Relation to Software Project Performance – A Prospective Cohort Study
Arun Kumar Sangaijah, VIT University, Vellore, India
Vipul Jain, University of Sharjah, United Arab Emirates

Chapter 4
A Basic Inventory Model in Fuzzy and Interval Environments Fuzzy and Interval Differential Equation Approach
Sankar Mondal, National Institute of Technology, Agartala, India

Chapter 5
A Fuzzy Based Calorie Burn Calculator for a Gamified Physical Activity Using Treadmill
Prabhakar Rontala Subramaniam, University of KwaZulu-Natal, South Africa
Chitra Venugopals, University of KwaZulu-Natal, South Africa
Arun Kumar Sangaijah, VIT University, India

Chapter 6
Clustering Approaches in Decision Making Using Fuzzy and Rough Sets
Deepthi P Hudedagaddi, VIT University, Vellore, India
Balakrishna Tripathy, VIT University, India

Chapter 7
An Adaptive Fuzzy Based Service Oriented Approach with QoS Support for Vehicular Ad Hoc Networks
Prabhakar Rontala Subramaniam, University of KwaZulu-Natal, South Africa

Chapter 8
Fuzzy Dynamic Programming Problem for single additive constraint with additively separable return by means of Trapezoidal Membership functions
Palanivel kalivayaperumal, VIT University, Vellore, India

Chapter 9
The Fuzzy-AHP & Fuzzy TOPSIS Approaches to ERP Selection: A Comparative Analysis
Rekha Gupta, Jamia Millia Islamia University, India
S. Kazim Naqi, Jamia Millia Islamia University, India

Chapter 10
Fuzzy Based Matrix Converter Drive for Induction Motor
Chitra Venugopals, University of KwaZulu-Natal, South Africa

Chapter 11
Bio Inspired Computing Through Artificial Neural Network
Nilamadhab Dash, C. V. RAMAN COLLEGE OF ENGINEERING, India
Rojalina Priyadarshini, C. V. RAMAN COLLEGE OF ENGINEERING, India
Brojo Kishore Mishra, C. V. RAMAN COLLEGE OF ENGINEERING, India
Rachita Misra, C. V. RAMAN COLLEGE OF ENGINEERING, India

Chapter 12
Genetic Based Estimation of Biomass Using Geographical Information System Study Area Vellore
Suresh kumar Nagarajan, VIT university, Vellore, India

Chapter 13
Optimized Fuzzy Logic Based Bit Loading Algorithms
Sanikar Ganesh S, VIT University, Vellore, India
Mohanprasad K, VIT University, Vellore, India
Arunprakash Jayaprakash, VIT University, Vellore, India
Sivanantham Sathasivam, VIT University, Vellore, India

Chapter 14
Outliers, Missing Values and Reliability: An Integrated Framework for Pre-Processing of Coding Data
Swati Aggarwal, NSIT, Dwarka, India
Shambu Azim, Vidyadaan Institute of Technology and Management, India

Chapter 15
Parameter reduction in soft set models and application in decision making
Balakrishna Tripathy, VIT University, Vellore, India
RK Mohanty, VIT University, Vellore, India
Sooraj TR, VIT University, Vellore, India
Arun K R, VIT University, Vellore, India

Chapter 16
Selection of Green Suppliers Based on GSCM Practices: Using Fuzzy MCDM Approach in an Electronics Company
Akhay Kumar Upala, VIT University, Vellore, India
Rishabh Ranka, VIT UNIVERSITY, Vellore, India
J J Thakkar, Indian Institute of Technology, Kharagpur, India
manupati vijay kumar, VIT University, Vellore, India
Shilpa Agrawal, VIT UNIVERSITY, Vellore, India

Chapter 17
Sentimental Analysis of Online Reviews using Fuzzy Sets and Rough Sets
Anuradha Jagadeeswan, VIT University, Vellore, India
Amit Patil, VIT University, Vellore, India

Chapter 18
Automated Framework for Software Process Model Selection Based on Soft Computing Approach
Swati Dhindra, VIT University, Vellore, India
Mythili Thirugnanam, VIT University, Vellore, India
Poorvi Dodwad, VIT University, Vellore, India
Meghana Madan, VIT University, Vellore, India

Chapter 19
Investment climate factors with reference to firm performance in Bangladesh - A prospective cohort study
Farhana Ferdousi, Macquarie University, Austelia
Arun Kumar Sangaijah, VIT University, Vellore, India
Arun Kumar Sangaiah has received his Master of Engineering (ME) degree in Computer Science and Engineering from the Government College of Engineering, Tirunelveli, Anna University, India. He had received his Doctor of Philosophy (PhD) degree in Computer Science and Engineering from the VIT University, Vellore, India. He is presently working as an Associate Professor in School of Computer Science and Engineering, VIT University, India. His area of interest includes software engineering, computational intelligence, wireless networks, bio-informatics, and embedded systems. He has authored more than 100 publications in different journals and conference of national and international repute. His current research work includes global software development, wireless ad hoc and sensor networks, machine learning, cognitive networks and advances in mobile computing and communications. He is an active member in Compute Society of India. Moreover, he has carried out number of funded research projects for Indian government agencies. Also, he was registered a one Indian patent in the area of Computational Intelligence. Besides, Prof. Arun Kumar Sangaiah is responsible for Editorial Board Member/Associate Editor of various international journals like International Journal of Intelligent Information Technologies (IGI), International Journal of Cloud Applications and Computing (IGI), International Journal of High Performance System (Inderscience), International Journal of Image Mining (Inderscience), International Journal of Intelligent Engineering and Systems, International Journal of Computational Systems Engineering (Inderscience) and Institute of Integrative Omics and Applied Biotechnology (IIOAB), etc. In addition, he has edited number of guest editorial special issues for various journals like Applied Soft Computing, Computers and Electrical Engineering (SCI), Future Generation Computer Systems (SCI), Neural Network World (SCI), Intelligent Automation & Soft Computing (SCI), Scientific World Journal (SCI) etc. Also, he has organized a number of special issues for Elsevier, Inderscience, Springer, Hindawi, and IGI publishers etc. Also he has acted as a book volume editor of various publishers for Taylor and Francis, Springer, IGI, etc. Furthermore, Prof. Sangaiah made outstanding efforts and contributions on the technical programme committee member of various reputed international/national conferences.