CONTENTS

Preface		**vii**
Expert Commentary		**1**
	Fuzzy Logic in Molecular Computing *Pier Luigi Gentili*	**3**
Short Communications		**13**
	The Application of Fuzzy Logic Principles to Developmental Psychology *Marijn van Dijk and Paul van Geert*	**15**
	Fuzzy Logic, Vagueness and Uncertainty *Gaetano Licata*	**23**
Research and Review Studies		**31**
Chapter 1	Fuzzy Decision Support System and its Applications in Supply Chain Management *Ying Xie*	**33**
Chapter 2	Application of Fuzzy Logic for Automated Interpretation of Mass Spectra *Timothy R. McJunkin and Jill R. Scott*	**85**
Chapter 3	Fuzzy Indices of Ecological Conditions: Review of Techniques and Applications *Agnese Marchini*	**115**
Chapter 4	A method for Fuzzy Logic Optimization and its Application in Placement of Biomass Power Plants *P. Reche-López, N. Ruiz-Reyes, S. García-Galán, and Francisco Jurado*	**173**
Chapter 5	Managing Energy Data Using Fuzzy-Sets in Decision Making *Fausto Cavallaro*	**207**

Fuzzy logic theory, programming and applications
2009

digitalisiert durch:
IDS Basel Bern

Chapter 6	Fuzzy Inference System for the Hydrological Expectation's Modeling in Colombian Electricity Market *Santiago Medina and Julián Moreno*	**229**
Chapter 7	Fuzzy Logic Applied in Multidimensional Model of Postoperative Pain Derived from Patient-controlled Analgesia *Jiann-Shing Shieh, Chung-Yi Dai, Yeong-Ray Wen, Tzu-Yu Lin, Jen-Yin Chen and Wei-Zen Sun*	**247**
Chapter 8	Decentralized Design of a Fuzzy Multi-objective Power System Stabilizer via Linear Matrix Inequalities *M. Soliman, A.L. Elshafei, F. Bendary and W. Mansour*	**269**
Chapter 9	Closed-loop Optimal Fuzzy Reasoning and Its Robustness Analysis *Zhang Lei and Zhang Kun*	**321**
Chapter 10	Applying Fuzzy Logic in Dynamic Buffer Tuning to Enhance the Success of Pervasive Medical Consultations *Wilfred W.K. Lin, Jackei H.K. Wong, ChenYe Zhu, Allan K.Y. Wong and Tharam S. Dillon*	**339**
Chapter 11	Fuzzy Logic in Evaluating the Impacts of MVAR Supports on ATC in a Deregulated Electricity Market *S. Shahnawaz Ahmed and Azhar B. Khairuddin*	**355**
Chapter 12	Fuzzy Logic Applications to Parameter Extraction of FET Compact Models *Rodrigo Picos, Eugeni Garcia-Moreno and Benjamin Iniguez*	**379**
Chapter 13	Fuzzy Logic Data Mining Based on Mass Assignment Theory *Dong Xie and Jim F. Baldwin*	**405**
Index		**433**