Lecture Notes in Artificial Intelligence 1011

Subseries of Lecture Notes in Computer Science

Takeshi Furuhashi (Ed.)

Advances in Fuzzy Logic, Neural Networks and Genetic Algorithms

IEEE/Nagoya-University World Wisepersons Workshop Nagoya, Japan, August 1994 Selected Papers



Contents

1.	Fuzzy -	Neural	Networks
	I WELLY	11001	THEEMOTING

Fuzzy Associative Memory System and Its Application to Multi- Modal Interface	
Hirohide Ushida, Tomohiko Sato, Toru Yamaguchi, Tomohiro Takagi	1
Hybrid Connectionist Fuzzy Systems for Speech Recognition and theuse of Connectionist Production Systems Nikola K. Kasabov	19
Fuzzy Gaussian Potential Neural Networks Using a Functional Reasoning	ene N 1
Mohammad Teshnehlab, Keigo Watanabe	34
Recurrent Fuzzy Logic Using Neural Network Emdad Khan, Fatih Unal	48
Information Aggregating Networks based on Extended Sugeno's Fuzzy Integral	
Keon-Myung Lee, Hyung Lee-Kwang	56
A Neuro-Fuzzy Architecture for High Performance Classification Sung-Bae Cho	67
2. Fuzzy Systems	
Investigation of Stability and Robustness of a Fuzzy Traction Control System	
Christian Schuster, Thomas Schmitz, Manfred Hiller	85
Knowledge-Based Rules for Control of the Sake (Ginjoshu) Making Process and Their Application in Fuzzy Control	
H.Honda, T.Hanai, Y. Nishida, I.Fukaya, T.Kobayashi	101

3. Fuzzy - Genetic Algorithms

	A Framework for Studying the Effects of Dynamic Crossover, Mutation, and Population Sizing in Genetic Algorithms	
	Michael A. Lee, Hideyuki Takagi	111
	Unsupervised/Supervised Learning for RBF-Fuzzy System -Adaptive Rules, Membership Functions and Hierarchical Structure by Genetic Algorithm- Koji Shimojima, Yasuhisa Hasegawa, Toshio Fukuda	127
	Genetic Algorithms for the Development of Fuzzy Controllers for Mobile Robots	
	Donald Leitch, Penelope Probert	148
	A New Approach to Genetic Based Machine Learning and an Efficient Finding of Fuzzy Rules - Proposal of Nagoya Approach - Takeshi Furuhashi, Yujiro Miyata, Ken Nakaoka, Yoshiki Uchikawa	173
rı	uzzy - GA Applications	
	A Neuro-Money Recognition Using Optimized Masks by GA Fumiaki Takeda, Sigeru Omatu	190
	Genetic-Fuzzy Systems for Financial Decision Making	
	Suran Goonatilake, John A. Campbell, Nesar Ahmad	202