

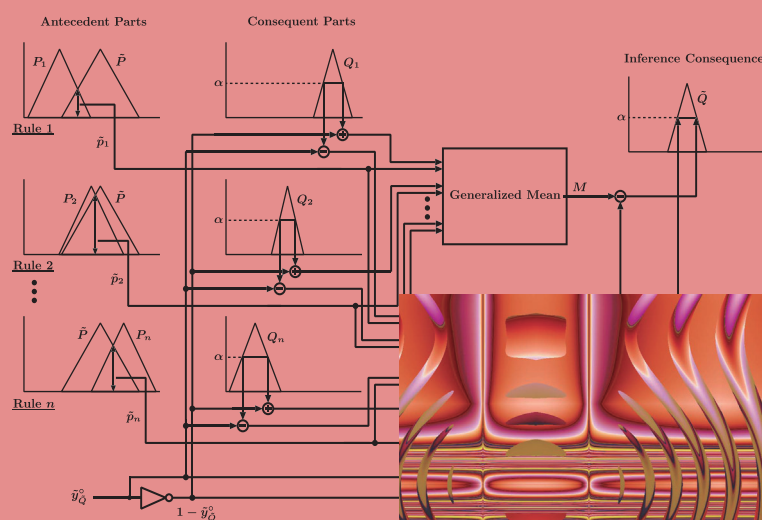
Journal of Advanced Computational Intelligence and Intelligent Informatics

Vol. 28 No.5
Sep. 2024

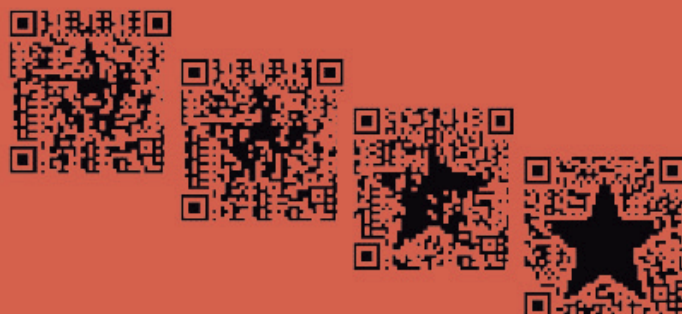
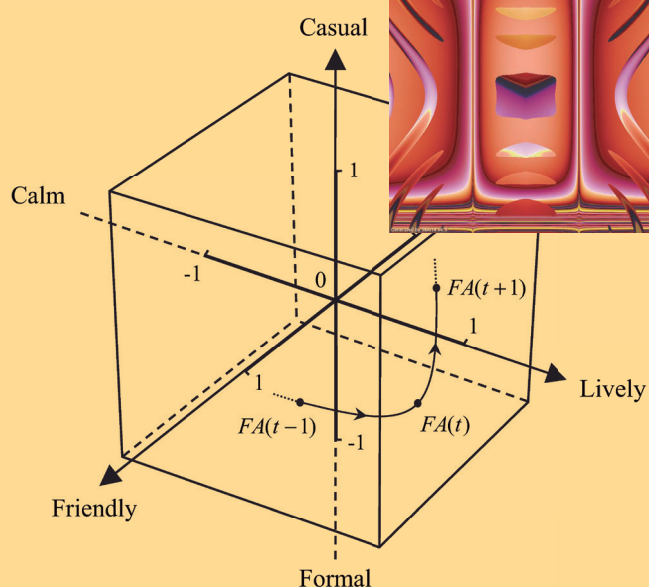
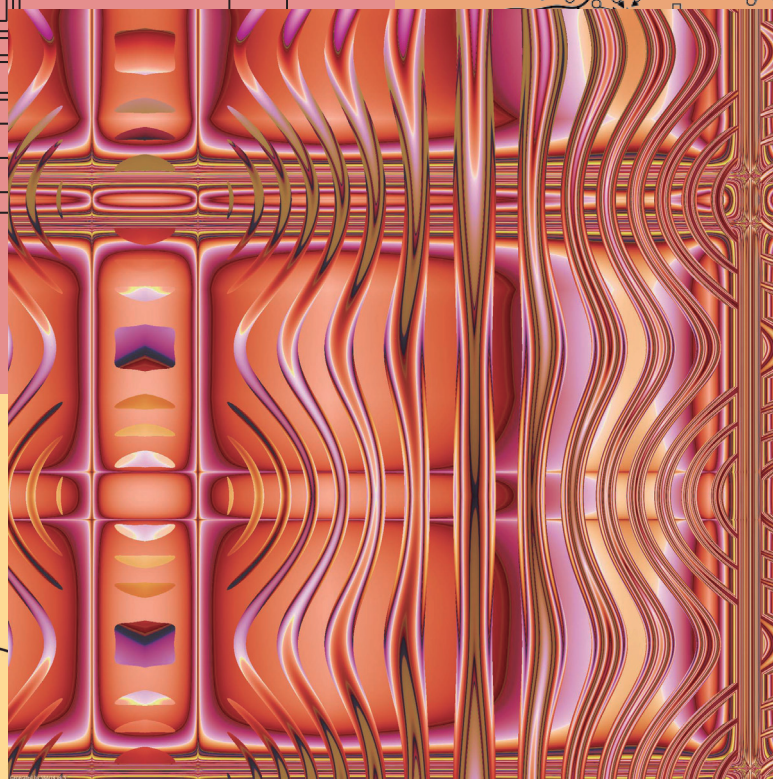
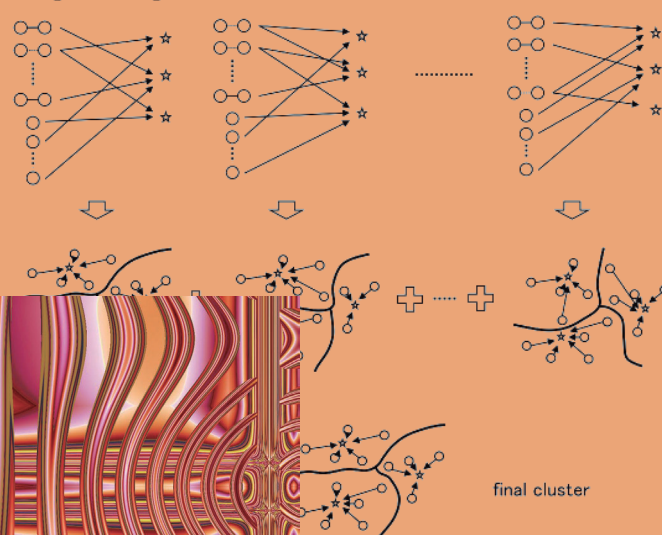
Indexed in ESCI, SCOPUS,
COMPENDEX (Ei), DOAJ

In Cooperation with

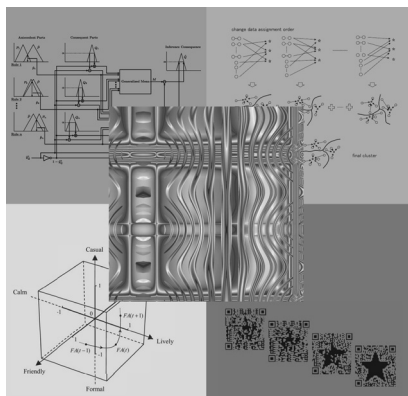
International Fuzzy Systems Association (IFSA),
Japan Society for Fuzzy Theory and Intelligent Informatics (SOFT),
Brazilian Society of Automatics (SBA),
The Society of Instrument and Control Engineers (SICE)
John von Neumann Computer Society (NJSZT),
Vietnamese Fuzzy Systems Society (VFSS),
Fuzzy Systems and Intelligent Technologies Research Society of Thailand (FIRST),
Korean Institute of Intelligent Systems (KIIS), and
Taiwanese Association for Artificial Intelligence (TAAI)



change data assignment order



Vol.28 No.5
Sep. 2024



This journal is indexed in:

Emerging Science Citation Index (ESCI);
Scopus; Compendex (Ei); DBLP;
Ulrichsweb™ Global Serials Directory;
Genamics JournalSeek; Open J-Gate; J-Global;
CiNii Articles; CNKI; Cabell's Directory;
DOAJ

Special Advisors:

Prof. Bin Xin
(Beijing Institute of Technology)

Publishing Staff:

Managing Editor	Masazumi Iwasaki
Associate Editor	Kunihiko Uchida
Art Director	Yuji Isa
Publisher	Y. Matsumoto

Published bimonthly by

Fuji Technology Press Ltd.
Ichigo Otemachi North Bldg. 2F
1-15-7 Uchikanda, Chiyoda-ku,
Tokyo 101-0047, Japan
Tel: +81-3-5577-3851
Fax: +81-3-5577-3861
E-mail: jaciii@fujipress.jp
URL: <https://www.fujipress.jp/jaciii/>

Copyright © 2024 Fuji Technology Press Ltd.



Articles in this journal are Open Access and published under the terms of the Creative Commons Attribution-NoDerivatives 4.0 International License (<http://creativecommons.org/licenses/by-nd/4.0/>).

Contents

Research Papers:

- **Accident Prediction in Coal Mine Drilling Using Fuzzy Inference Based on Multi-Scale Feature Extraction.1067**
Youzhen Zhang, Ke Yao, and Wangnian Li
- **Research on Multi-Modal Music Score Alignment Model for Online Music Education1075**
Dexin Ren
- **Synthesis of Comic-Style Portraits Using Combination of CycleGAN and Pix2Pix1085**
Yen-Chia Chen, Hiroki Shibata, Lieu-Hen Chen, and Yasufumi Takama
- **Electroencephalography Emotion Recognition Based on Rhythm Information Entropy Extraction .1095**
Zhen-Tao Liu, Xin Xu, Jinhua She, Zhaohui Yang, and Dan Chen
- **The Color Harmony Estimation Model Construction Based on Two Layers of MLE and BPNN in the Color Matching Field1107**
Fang Peng
- **A Multi-Criteria Decision Making for Employee Selection Using SAW and Profile Matching1117**
S. Jenifer Briscilla and R. Sundarajan
- **Research on Depression Recognition Based on University Students' Facial Expressions and Actions with the Assistance of Artificial Intelligence1126**
Xiaohong Cheng
- **Research on Evaluation of College-Classroom Teaching Quality Based on Pentapartitioned Neutrosophic Cubic Sets and Machine Vision . . .1132**
Huan Ni, Fangwei Zhang, Jun Ye, Bing Han, and Yuanhong Liu

Cover Pictures:

Upper left:
The process of fuzzy inference based on α -cuts and generalized mean.
(Asso. Prof. Kiyohiko Uehara, Ibaraki University)

Upper right:
The process of boosting based cluster ensemble.
(Dr. Masayuki Okabe, Prefectural University of Hiroshima)

Center:
2D CG image drawn with “SBART,” a simulated breeding tool.
(Prof. Tatsuo Unemi, Soka University)

Lower left:
Fuzzy atmosfield represented in 3D fuzzy cubic space.
(Dr. Zhen-Tao Liu, China University of Geosciences, China)

Lower right:
QR code decoration using module-wise non systematic coding.
(Asso. Prof. Satoshi Ono, Kagoshima University)

Printed copy: one year subscription
Institutional rate JPY 138,000

□ Research on Topology Optimization of Building Digital Supply Chain Based on Genetic Neural Network	1144
Yawu Su, Zhiguo Shao, and Tianyang Liu	
□ Reducing Bandwidth Usage in CVSLAM: A Novel Approach to Map Point Selection and Efficient Data Compression	1154
Weiqiang Zhang, Lan Cheng, Xinying Xu, and Zhimin Hu	
□ Verb Form Recognition and Error Detection in English Articles Using Long Short-Term Memory and Grammar Checks	1164
Ping Hu and Huicheng Zhang	
□ A Study of Library Mobile Robot Book Classification and Transportation by Integrating DA and RMM . .	1169
Dongli Zhang	
□ License Plate Recognition Using Three-Dimensional Rotated Character Recognition and Instance Segmentation by Deep Learning	1178
Tetsuro Sasaki, Kento Morita, and Tetsushi Wakabayashi	
□ Predictive Controller for Large-Scale Fuzzy Polynomial Systems.	1186
Ziqin Xu and Lizhen Li	
□ Multi-UAV Path Planning for Inspection of Target Points with Stable Monitoring Frequencies	1195
Jing Li, Yonghua Xiong, and Anjun Yu	
□ Machine Learning Algorithms for Predicting and Estimating Book Borrowing in University Libraries	1204
Huimin Zhang	
□ Dynamic Short-Term Perspective Estimation Based on Formal Concept Analysis	1210
Kazuki Aikawa and Hajime Nobuhara	