

Journal of Advanced Computational Intelligence and Intelligent Informatics

Vol. 30 No.2 Mar. 2026

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)

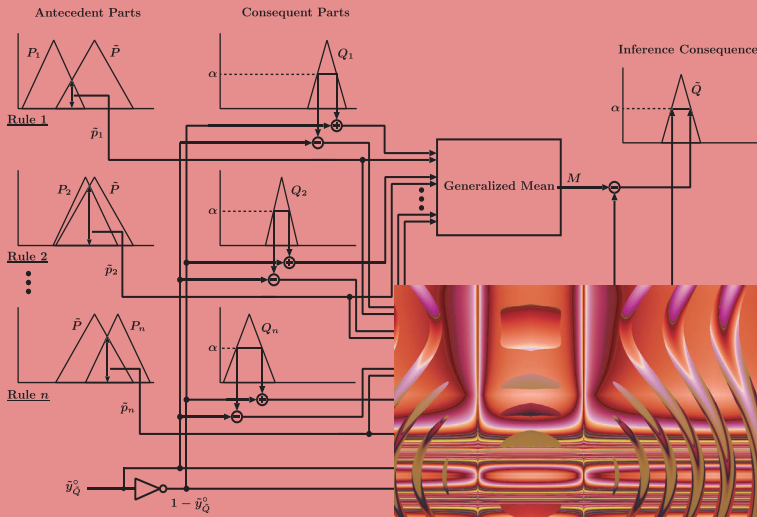
John von Neumann Computer Society (NJSZT),

Vietnamese Fuzzy Systems Society (VFSS),

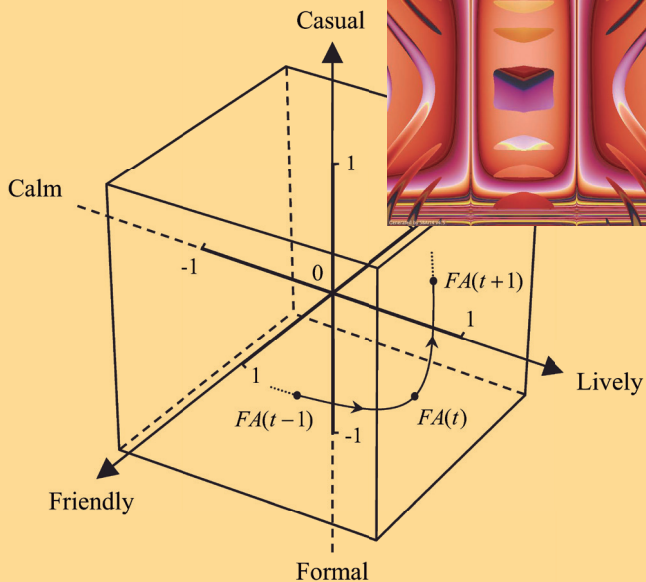
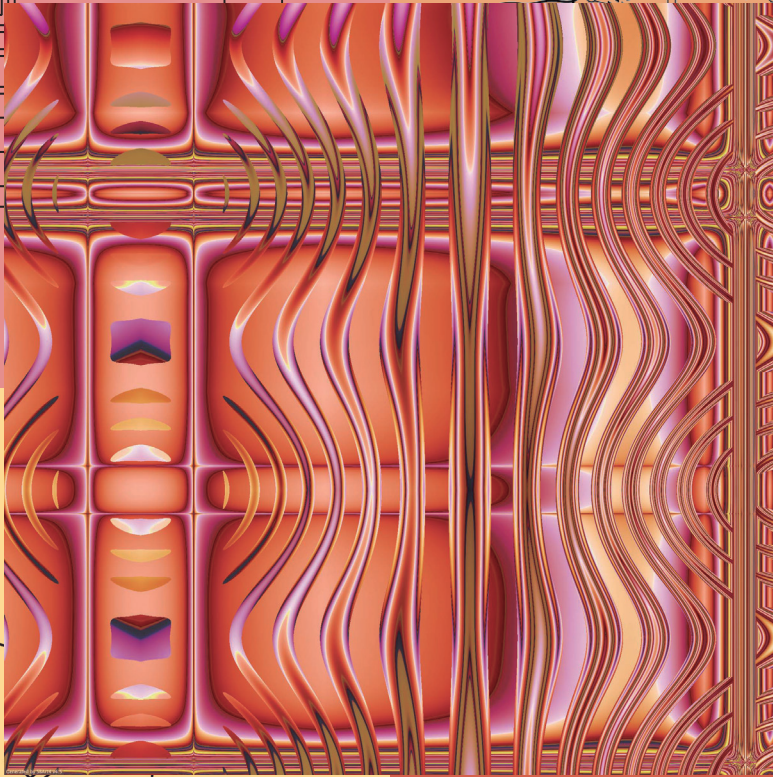
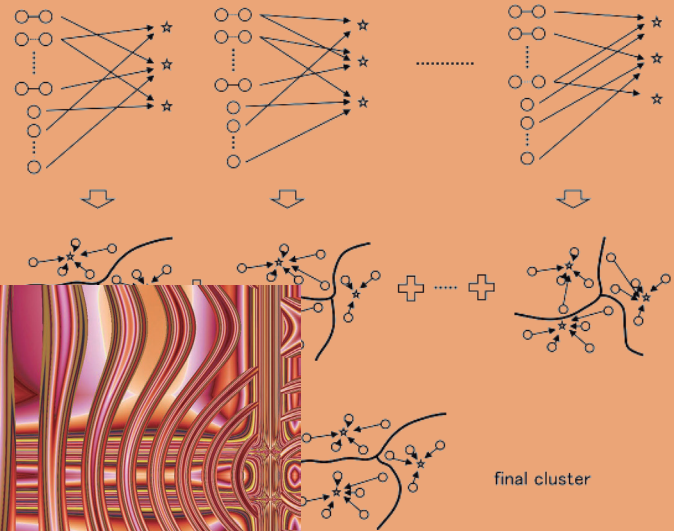
Fuzzy Systems and Intelligent Technologies Research Society of Thailand (FIRST),

Korean Institute of Intelligent Systems (KIIS), and

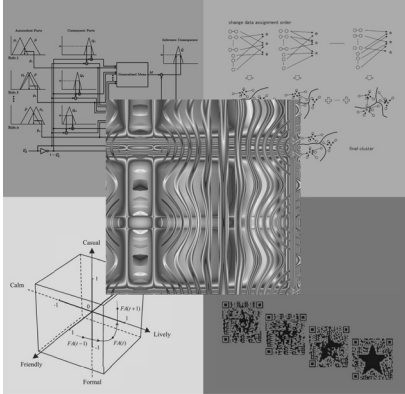
Taiwanese Association for Artificial Intelligence (TAAI)



change data assignment order



Vol.30 No.2
Mar. 2026



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. Katsuhiko Honda
(Osaka Metropolitan University)
Prof. Tsung-Kuo Tien-Liu
(Meiho University)
Prof. Wentao Gu
(Zhejiang Gongshang University)
Prof. Hongbin Ma
(Beijing Institute of Technology)

Publishing Staff:
Managing Editor Rongli Li
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 © 2026 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

Regular Papers:

Research Papers:

- **Applying Three-Arm Design for Assessing Distance Learning 333**
Hsin-Neng Hsieh, Chien-Chou Chen, and Hung-Yi Lu
- **Usage Behaviors of Large Language Models: Taking Undergraduate Students as an Example . . 343**
Chien-Chou Chen and Hung-Yi Lu
- **Reimagining Leadership Assessment: A Comparative Study of Human and AI Scoring Using ChatGPT in School Principal Training 348**
Mingchuan Hsieh
- **Pricing Cash-or-Nothing Binary Options with Two Underlying Assets Under Default Risk. 354**
Chieh-Wen Hsu
- **Industrial Structure Upgrading, Household Consumption Level, and High-Quality Economic Development. 362**
Yong Wang and Zhenyu Wan
- **IoT-Driven Community Sports Management: Machine Learning for Data Processing 372**
Mingkai Cheng and Wu Lv
- **Vanilla-YOLO: A Lightweight Algorithm for Breast Cancer Detection 388**
Shu-Hua Li, Mary Jane C. Samonte, and Feng-Long Yan
- **Impact of Management Risk Neglect on Export Sophistication: A Textual Analysis Perspective. . . 397**
Jiayu Gao, Fangting Yang, and Wentao Gu
- **Analyzing the Network Structure of Indigenous Teachers' Professional Development and Co-Production Behaviors: An Application of Epistemic Network Analysis 406**
Hsiao-Chi Juan

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 atmosphere 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

- **Mind Over Machine? The Role of Student Mindset in AI-Assisted Curriculum Design for Sexual Health Education 415**
Yuju Huang
- **Operating Parameters Optimization Based on BPNN and NSGA-III in Rotating Mode for Pneumatic Directional Drilling 424**
Hao Li, Lijuan Fan, Ningping Yao, Hongchao Wei, and Chengda Lu
- **Impact of Artificial Intelligence on Employment Quality: Evidence from China 433**
Hongyu Zhang, Xiang Li, and Tao Ding
- **Application of BERT-Based Japanese Writing Intelligent Grading System in Blended Teaching . . 446**
Ping Yan
- **Brightness-Sensitive Generative Adversarial Network Using a Chained Extension Framework for PET-to-CT Medical Image Synthesis 457**
Xiaoyu Deng, Kouki Nagamune, and Hiroki Takada
- **Few-Shot Multimodal Sentiment Analysis Based on Dynamic Adjustment and Contrastive Learning . . 472**
Hongbin Wang, Shuangqing Liu, and Ning Xie
- **Polytomous Model Integrating S–P Chart and Ordering Theory: Application to Cognitive Diagnosis of Fraction Calculation 486**
Yuan-Horng Lin and Mitsunobu Kawauchi
- **Prediction of Circulating Load Ratio for Semi-Autogenous Grinding Process Using Fuzzy C-Means and Bayesian-Optimized Random Forest. 496**
Zhenhong Liao, Jinhua She, Yanglong Zhang, and Wen Chen
- **Multi-Team Formation System for Collaborative Crowdsourcing 509**
Ryota Yamamoto and Kazushi Okamoto
- **Exploring the Relationship Between University Students’ Satisfaction with Physical Education Courses and Their Well-Being 523**
Jen-Yi Huang, Kuang-Nan Tsai, and Tsung-Kuo Tien-Liu

| | |
|---|------------|
| □ Dual-Objective Optimization Model for Low Carbon Cold-Chain Logistics | 532 |
| Chaofan Wang and Takashi Hasuike | |
| □ DroneDetect: Multiscale Feature Fusion and Attention-Driven Architecture for UAV Object Detection | 543 |
| Huiyao Zhang | |
| □ Intelligent Evaluation Algorithm for English Teaching Quality Based on HMIPSO-Optimized BP Neural Networks | 558 |
| Feng Liu | |
| □ A Hybrid Collaborative Filtering and LDA-Based Subject Model for Bidirectional Employment | 566 |
| Dijing Hao | |
| □ Prompt-Optimized Music Generation: A User Feedback-Adaptive AI System | 579 |
| Keishi Ohya, Emmanuel Ayedoun, and Masataka Tokumaru | |
| □ Design of a Robot Arm Based on Human Structure for Humanoid Robots | 589 |
| Keita Kobayashi and Akinori Sekiguchi | |
| □ Development of an Innovation Media Model Using Artificial Intelligence for Predicting Depression . . | 601 |
| Patcharin Boonsomthop and Chutisant Kerdvibulvech | |