

IEEE Transactions on Fuzzy Systems

Special issue on

“Fuzzy Intelligence for Flexible Electronics and Systems”

With the rapid progress in material technology, flexible electronics and systems are rapidly developing towards thinner, more flexible, high-performance, and high-efficiency systems, featuring intelligent sensing and complex control. These systems possess a number of properties which make them suitable for various applications involving humans and animals. In doing so, researchers may employ fuzzy intelligence (combining fuzzy logic and artificial intelligence) to address real-world problems with high levels of uncertainty and ambiguity, such as human behavioral intention recognition, complex condition handling, sensory feedback generation and high-density sensor data processing. The integration of fuzzy intelligence with flexible electronics and systems provides multiple advantages in this emerging field, including adaptability, rule-based control, and human-like decision-making. This has sparked a growing interest in studying such systems, encompassing advanced sensor and stimulation technology, intelligent control, large-scale computing intelligence, and more. Fuzzy intelligence aims to enhance the functionality and accuracy, providing them with adaptive and human-like decision-making capabilities, and facilitating their application in healthcare, robotics, industrial, and other fields.

This special issue is intended to expedite publication of novel and significant research results, technology and/or conceptual breakthrough of emerging topics of *Fuzzy Intelligence for Flexible Electronics and Systems*. We invite submission of high-quality papers as related to recent advances in such emerging topics, including but are not limited to the following:

- **Fuzzy control theory through extensions of ordinary fuzzy sets**
- **Human-robot interface with fuzzy intelligence**
- **Fuzzy intelligent sensing, fusion, and features extraction on flexible electronics and systems**
- **Sensory feedback with fuzzy intelligence**
- **Fuzzy mechanisms for learning approaches**
- **Data-driven approaches for flexible electronics and systems**
- **Computational methods via fuzzy logic**
- **High-density sensing and feedback using fuzzy intelligence**
- **Cyber-physical system fuzzy intelligent control**

Submission guidelines

Submission link: <http://mc.manuscriptcentral.com/tfs-ieee>

Important Dates

Deadline for first submission:	Dec. 31, 2024
First round review complete:	Feb. 28, 2025
Revised submission due:	Apr. 30, 2025
Final decision due:	Jun. 30, 2025

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