Advances in Fuzzy Systems

Special Issue on

Fuzzy Logic, Theories, and Applications Facilitating Wireless Sensor Network Research

CALL FOR PAPERS

Wireless sensor networks (WSNs) are one of the most promising information technologies that have emerged in recent years for their wide range of applications. WSNs are networks specially distributed with interconnected autonomous wireless sensors which acquire and process information of dynamic environments for decision-making purposes. However, it has been quite challenging to achieve energy conservation, efficient network routing, and fault and intrusion detection as well as time synchronization in resource and computing power restricted tiny sensor nodes.

Fuzzy logic and its theories have been proven successful in dealing with uncertainties, nonlinearity, imprecise, inadequate, and vague knowledge to develop computationally affordable, simple, and robust solutions for complex dynamic systems in a constantly changing environment. The tremendous merits of fuzzy theories and techniques make them the perfect choice to advance WSN research.

The goal of this special issue is to provide a platform where novel ideas, recent advancements, and future perspectives of fuzzy logic in WSN can be exchanged and propagated. We sincerely invite researchers worldwide to contribute their original research and review articles on fuzzy logic, theories, and applications facilitating WSN research.

Potential topics include but are not limited to the following:

- Fuzzy WSN time synchronization models
- Fuzzy WSN energy optimization techniques
- Fuzzy clustering and cluster head optimization methods
- Energy balanced fuzzy WSN routing strategies
- Fuzzy WSN abnormal detection models
- Fuzzy WSN intrusion detection models and systems
- Fuzzy WSN localization models and systems
- Fuzzy WSN applications for critical infrastructure protection
- Fuzzy WSN applications for industrial surveillance and control
- Fuzzy WSN applications for environmental protection and agro-ecosystems
- Hybrid fuzzy WSN applications for climate change and forecasting

Authors can submit their manuscripts through the Manuscript Tracking System at https://mts.hindawi.com/submit/journals/afs/flws/.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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