

Special Issue on **Fuzzy Systems for Next Generation Agriculture and Biosystems Engineering**

CALL FOR PAPERS

Fuzzy systems are an alternative to traditional notions of set membership and applications at the leading edge of Artificial Intelligence. The applications, which may be generated or adapted, to Fuzzy Logic are wide-ranging. Many systems may be modeled, simulated, and even replicated with the help of fuzzy systems. The goal of the special issue is to help promote the advances in the development and practice of fuzzy system technologies in the agriculture and biosystems engineering.

Agriculture and biosystems engineers have developed methods for Artificial Neural Networks (ANNs), Genetics Algorithms (GAs), Bayesian Inference (BI), Decision Tree (DT), and Fuzzy Logic (FL) to study soil and water regimes and so on related to crop growth and development, analyze the operation of food processing, and support decision-making in precision agriculture. Agriculture and biosystems engineers are qualified to use their knowledge of mathematics, biological sciences, and engineering principles to solve problems relating to the production, handling, and processing of biological materials. The control biological materials in living systems are complex and time-consuming and the environment affects the living systems.

Fragmentary, uncertain, qualitative, and complex knowledge typically available for biological systems can be handled for modeling by using fuzzy systems. This special issue aims to provide a platform for researchers to present new research and developments in this area.

Potential topics include but are not limited to the following:

- ▶ Neural-fuzzy systems
- ▶ Fuzzy systems in agriculture engineering
- ▶ Fuzzy systems in dairy cattle husbandry
- ▶ Soft computing and uncertainty modeling
- ▶ Fuzzy systems applications in natural sciences
- ▶ Fuzzy systems applications in environmental issues
- ▶ Fuzzy systems applications in robotics and mechatronics
- ▶ Unmanned aerial systems
- ▶ Fuzzy image processing for remote sensing applications
- ▶ Fuzzy systems in land irrigation systems
- ▶ Fuzzy systems in agricultural economics

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

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

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