

Tentative Outline

Special Thematic Issue for Journal of Fuzzy Logic and Modeling in Engineering

Fuzzy Logic modeling approaches on covid-19 pandemic

Guest Editors: Dr. Gaurav Dhiman

Aims & Scope:

The recent advancement in data analytics modelling has heaved the growth of logical reasoning in several applications. The massive data collection across various fields ranging from healthcare to transportation has enabled the data analytics model to leverage advanced data science technique for interaction/understanding/predicting the devices/systems/humans. The conventional data analytics models performed are partially optimal on the processed data and results presented are inaccurate. In order of catering large datasets in various ecosystems, the logical reasoning has heaved its advancement through various novel modelling architecture, hybrid frameworks and integrated models to automate the processing events on a larger scale. With the advancement of Artificial Intelligence (AI) on various ecosystems, the surge on fuzzy logic modelling provides newer insights and articulates newer directions among the active research community. The performance on sustainability of fuzzy logic modelling with recent advancement has created its maximal efficacy on real-time or near to real-time applications. This calls for ground-breaking research methods on fuzzy logic modelling embedded with time series modelling and AI/subsets of AI as it is very significant in current trend. The fuzzy logic modelling will give the value to researches, academicians and scientists in combination with AI related techniques. We are searching for novel and innovative works focussing on fuzzy logic modelling for prediction/diagnosis/analysis of covid-19 infectious spread.

The special issue on Special Issue on Fuzzy Logic Modelling over Covid-19 is a global forum for the active research community to share their recent advancements in this logical area. We are calling for the active research inputs in four various categories, which focus entirely on fuzzy logic systems on covid-19 pandemic: (1) theory and novel application scenarios for fuzzy logic analysis on covid-19 pandemic; (2) novel theories, protocols or algorithms for time series analysis vs. AI; (3) formulation of novel fuzzy strategies on various business models via benchmark data sets.

Subtopics:

The subtopics to be covered within this issue are listed below:

- Fuzzy Decision Support System based Machine Learning or Deep Learning models for covid-19 predictions – infection spread/gene-protein interaction/anti-viral drug synthesis.
- Fuzzy Decision Making and Decision Support Systems on big data analytics on various data-processing applications over covid-19 predictions.
- Extensions of fuzzy sets: intuitionistics fuzzy sets, hesitant fuzzy sets, neutrosophic sets, spherical fuzzy sets on Artificial Intelligence for the diagnosis/prediction/analysis of infectious spread in healthcare systems.
- Fuzzy System Applications in Artificial intelligence based Computer Vision on human classification for covid-19 infection.
- Fuzzy Systems Design and Optimization in blockchain technology in healthcare systems.

Schedule:

- ✧ Final manuscripts due: December 2021

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