

Special Issue on
Optimization of Fuzzy Systems: Theory and Applications

CALL FOR PAPERS

In the increasing craze of information technology, the concepts of cost, time, delivery, space, quality, durability, and price have started gaining greater importance with time in solving managerial decision-making problems. Moreover, day-by-day competition is becoming tougher in imprecise environments. For instance, customer demand is often being affected by several varying factors such as production price, income level, and the like. In these cases, the demand either remains unfulfilled or is difficult to obtain with certainty in the real-world market. Fuzzy sets are not always able to directly depict such uncertainties because they exhibit numeric membership functions. Whereas, type 2 fuzzy sets are found to be more suitable to accommodate inherent uncertainties. Type 2 fuzzy systems can handle higher levels of uncertainty in more complex real world problems. However, as higher complexities are involved in designing type 2 fuzzy systems it becomes critical to use the optimization techniques for achieving the optimal design. So, here metaheuristics such as GA, PSO, ACO, and BCO and other soft computing techniques are required to be used for efficient methods to achieve the levels of greater accuracy in the applications in both type 1 and type 2 fuzzy environments.

We encourage researchers as well as practitioners of industrial engineering and management to contribute to this special issue with original and high quality articles addressing new concepts, methods, algorithms, modeling, and applications of the following topics to inventory control problems, transportation problem, and new information for the topic from the theoretical and applied viewpoints in type-1 and type 2 fuzzy environments.

Potential topics include but are not limited to the following:

- ▶ Optimization on fuzzy environments
- ▶ Inventory and transportation problems in fuzzy environments
- ▶ Type-1 and type 2 fuzzy logic
- ▶ Soft computing
- ▶ Credibility measures
- ▶ Optimization of fuzzy logic controllers
- ▶ Metaheuristics for optimization of fuzzy system
- ▶ Calculus of variations and fuzzy mathematics
- ▶ Information retrieval and fuzzy systems
- ▶ Decision making using fuzzy systems
- ▶ C-means using fuzzy systems
- ▶ Linear and nonlinear programming problem using fuzzy mathematics
- ▶ Optimization using fuzzy mathematics
- ▶ Data mining and fuzzy sets
- ▶ Time series and fuzzy systems.

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

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

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