

Fuzzy linear programming coefficients in an uncertain with vague objective environment

Abstract

In this paper, a new fuzzy linear programming (FLP)-based methodology using a specific membership function named modified logistic membership function is proposed. The modified logistic membership function is first formulated and its flexibility established by an analytical approach. This membership function is tested for its useful performance through an illustrative example by employing FLP. The developed methodology of FLP has provided confidence in applying to real-life industrial production planning problem. This approach of solving industrial production planning problem can provide feedback to the decision maker, implementer and analyst. In such cases, this approach can be called interactive FLP. There is a possibility to design the self-organizing of the fuzzy system for the product mix selection problem in order to find a satisfactory solution. The decision maker, analyst and implementer can incorporate their knowledge and experience to obtain the best outcome.