Abstract

The objective of this paper is to extend the TOPSIS to the fuzzy environment. FUZZY TOPSIS is one of the various models of multiple attributes decision making with triangular fuzzy values that so far diverse models have been introduced. The concepts represented in the decision data wherein the crisp value are inadequate to model in real-life situations. In this paper the rating of each alternatives are described by triangular fuzzy numbers, and the weights of each criterion are found by entropy. According to the concept of TOPSIS, a closeness coefficient is defined to determine the ranking by calculating the distance of both the fuzzy positive-ideal solution and fuzzy negative-ideal solution. The proposed methods have been applied for five different crops with various criteria for a better and more accurate outputs.

References


**Index Terms**

Computer Science

Fuzzy Systems

**Keywords**

TOPSIS, Fuzzy TOPSIS, Triangular Fuzzy Numbers.