

Fuzzy AHP Approach Using Trapezoidal Fuzzy Number in Irrigation of Water

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ABSTRACT

Using fuzzy logic theory, the Analytic Hierarchy Process (AHP) method known as Fuzzy Analytic Hierarchy Process was created. Similar to how the AHP method is utilized, so is the fuzzy AHP approach. The AHP scale is simply incorporated into the fuzzy triangle scale to be accessible as a priority by the fuzzy AHP method. According to experts, the modernization and optimization of irrigated agriculture management can involve significant competing forces. In this study, a fuzzy AHP method based on trapezoidal fuzzy numbers is suggested for allocating irrigation water. By providing a numerical example using the proposed ranking function, we are demonstrating the recommended methodology.

Keywords: Fuzzy AHP, Trapezoidal Fuzzy Number, Ranking Function

