SOLVING LINEAR PROGRAMMING PROBLEM OF GENERALIZED SYMMETRIC TRAPEZOIDAL FUZZY NUMBERS

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ABSTRACT

This research was aimed at determining an optimum solution to a linear programming problem of generalized trapezoidal fuzzy numbers using generalized fuzzy simplex method and ranking function. The model for linear programming of generalized trapezoidal fuzzy numbers used in this research was only coefficients of objective function in the form are generalized trapezoidal fuzzy numbers, while the technique coefficients and right-hand side constants of the constraint function are real numbers

The research was conducted in several stages that include identifying the problems, collecting the data, determining the variable and parameter, formulating a linear programming model of the generalized trapezoidal fuzzy numbers, solving the problem by using generalized fuzzy simplex method, analyzing the result, and describing the conclusions.

The result of the analysis indicates that generalized trapezoidal fuzzy numbers can be applied to fuzzy linear programming. Moreover, it can be overcome by using the generalized fuzzy simplex method using the definition of the Karyati-Tedi ranking function.

Kata Kunci: *optimization, linear program, fuzzy numbers, Karyati-Tedi ranking function*