

## ABSTRACT

*Establishment of an optimal stock portfolio is related to determining the optimal weight for each share in the portfolio. In this study, we will discuss how to find the optimal weight that minimizes risk and maximizes returns by considering the parameters of transaction costs and the minimum number of transactions using genetic algorithms. The end result of the Portfolio research that is formed with transaction costs and number of transactions has a performance that is better than that, without considering the two parameters, the transaction cost parameters and the minimum number of transactions can be used in future research.*

**Keywords:** *Portfolio, Genetic Algorithm, fuzzy, semi-variance, transaction costs, minimum transaction lots*