ABSTRACT

In the manufacturing industry in the modern era, there are a number of constraints that are often encountered in the development and management of warehouses, such as the arrangement of goods that are not neatly arranged so that a lot of free space is not utilized optimally in the warehouse.

In this research, the application of Genetic Algorithm was discussed, in optimizing the arrangement of storage of manufactured goods in warehouses. Genetic Algorithm is a method that is often used in optimizing by relying on natural selection to get the best fitness value, the items used are cubic in shape with different sizes according to the type of item.

The use of Genetic Algorithms in this final project aims to find the best fitness value in the allocation of goods in the finished warehouse, so that the arrangement and allocation of goods is not done carelessly and can reduce the free space in the warehouse, the results of this study will be displayed in the java application in the form of tables and visualization of placement of goods on the shelf.

Keywords: Optimization, Genetic Algorithm