Abstract

To obtain the arrangement of the box in three dimensional space is quite complicated. There are many interrelated aspects and should be included in this compilation that include a large dimension space is used as a limitation of the preparation of the boxes, distribution boxes formulation is expected to meet all the coordinates in the room, and the preparation of this box will be more complicated if it involves the center of gravity of each mass of the box. The problem formulation of this box, can be seen from the side of the box, namely the possibility of a sequence of boxes of the room. From the above aspects, in the preparation of the layout of this box there are many possibilities that should try to find the best arrangement. One method that can be used to solve these problems is by using a genetic algorithms.

Genetic algorithm is an algorithm that uses heuristic approach in solving complex combinatorial problems. By using a genetic algorithm and its operators such as reproduction, crossover and mutation acquired condition in which the best combination for the sequence where the goods to the room with the fulfillment of the coordinate points of the largest room.

Keyword: *optimization, box arrangement, combinatorial, genetic algorithm.*