PROJECT REPORT

OPTIMAL DESIGN OF WASTE TRANSPORT ROUTE USING GENETIC ALGORITHM

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7. Where the work is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself.

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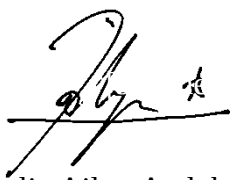

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ABSTRACT

Wastes are residues of daily human activities or solid natural processes. Over the years the buildup of waste has been gradually increasing, due to the increase of human population / human activities. From the waste that has been produced, the remaining waste usually is placed in a temporary shelters for waste or TPS. This TPS is then later taken to a final processing place for waste or called TPA, there needs to be an optimum route from one TPS to another TPS with the final destination TPA to prevent waste from overflowing in one TPS which can cause harm in the environment. This research uses genetic algorithm to optimizes route between one temporary waste shelters to another, since genetic algorithm is an optimization algorithm, this research will prove whether genetic algorithm can solve the problem or not, the algorithm will be compared with another optimization algorithm, which is brute force to determine is genetic algorithm really a good optimization algorithm. Genetic algorithm has proven to be more optimum from the original path and also from brute force algorithm, but genetic algorithm needs more time to compute and is considered to be more complex and hard to understand compared to the brute force.

Keyword: Genetic_algorithm, tsp, brute_force

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