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Robust counterpart open capacitated vehicle routing (RC-OCVRP) model in optimization of garbage transportation in District Sako and Sukarami, Palembang City

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Abstract

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Abstract

In this paper, the Robust Counterpart Open Capacitation Vehicle Rounting Problem (RC-OCVRP) Model has been established to optimize waste transport in districts Sako and districts Sukarami, Palembang City. This model is completed with the aid of LINGO 13.0 by using Branch and Bound solver to get the optimum route. For Sako districts, the routes are as follows: working area 1 is TPS 1-TPS 2-TPS 3-TPA with distance 53.39 km, working area 2 is TPS 1-TPS 2-TPS 3-TPA with distance 48.14 km, working area 3 is TPS 1-TPA with a distance of 22.98 km, and working area 4 is TPS 1-TPS 2-TPS 3-TPS 4-TPA with 45.45 km distance, and obtained the optimum route in Sukarami districts is as follows: working area 1 is TPS 1-TPS 2-TPA 44.39 km, working area 2 is TPS 1-TPS 2-TPS 3-TPA with distance 49.32 km, working area 3

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is TPS 1-TPS 3-TPA-TPS 2-TPA with distance 58.57 km, and working area 4 is TPS 1-TPA with a distance of 24.07 km, working area 5 is TPS 1-TPS 3-TPA-TPS 2-TPS 4-TPA with a distance of 77.66 km, and working area 6 is a TPS 1-TPS 2-TPS 3-TPA with a distance 44.94 km. Copyright © 2018 Institute of Advanced Engineering and Science. All rights reserved.


Author keywords

Garbage transportation; OCVRP; Optimization; Robust

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