

APPLICATION OF HYBRID META-HEURISTIC METHOD ON THE MULTI-TEMPERATURE CO-
DELIVERY ROUTING

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Abstract

This study proposed a model named as the Hybrid Multi-temperature Co-delivery Vehicle Routing Problem (HMCVRP), and designed a RASTA (Ranked Ant System with Threshold Accepting) procedure that combined the neighborhood search methods with threshold accepting algorithm into a scheme of the ASrank algorithm to solve the HMCVRP. In order to identify the feasibility of RASTA, a bank of 30 instances was generated and five experiments were conducted to analyze the computational performance. Computational results shown that the proposed RASTA can solve the HMCVRP effectively.

Keyword : Cold-chain logistics; Multi-temperature co-delivery; Ranked ant system algorithm; Threshold accepting algorithm.