導引式區域搜尋法於車輛路線問題之求解應用

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摘要

The Guided Local Search (GLS), which has been applied to solve several complicated combinatorial optimization problems, such as TSP, VRPTW and VRPBTW, is a new-developed meta-heuristic approach. This research aims to propose a GLS scheme for solving the Vehicle Routing Problem (VRP), and to modify the setting of penalty value. In addition, a set of thirty-two VRP benchmark instances was adapted to test our GLS scheme. Computational results showed that the modified penalty setting significantly improved the performance of GLS on solving the VRP instances, and the average percentage of errors among the 32 instances was merely 3.70%. Such results implied that the GLS has potential for solving the VRP.

關鍵字：Guided Local Search (GLS), Vehicle Routing Problem (VRP), Penalty