區位-途程問題啟發式解法之研究

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摘 要

區位-途程問題(LOCATION-ROUTING PROBLEMS ,LRPS)係採巡迴式配送；而傳統的配送，以往返式配送為主要方式，此為LRP和傳統的區位指派問題(CLASSICAL LOCATION-ALLOCATION)間最大的區別。區位-途程問題是結合設施區位問題與車輛途程問題，加以考量更符合實際的運輸成本，同時決定最佳的設施數目、服務範圍、車輛指派和車輛途程。 本研究目的在針對由白俊偉[3]所建構一區位-途程數學模式，先應用鬆弛法求解集合涵蓋問題，再提出新的啟發式演算法進行LRP的改善。由於LRP為一個NP-HARD問題，而且問題內容包含區位分派問題及車輛途程問題，因此非常複雜難解。本研究將根據下列三個子問題：⑴區位分派問題，⑵車輛途程問題，⑶途程重新指派問題，結合拉氏式鬆弛法(LAGRANGIAN RELAXATION)與禁忌搜尋法(TABU SEARCH)，分別發展啟發式演算法，以求迅速獲得近似最佳解。

關鍵詞 : 區位-途程問題、拉氏鬆弛法、禁忌搜尋法

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