阻隔條件考量下具非等效平行機台之流程型排程問題研究

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摘 要

本研究是針對非等效平行機台(unrelated parallel machine)的多階段流程型排程問題進行研究。研究中並考量阻隔條件(blocking)、可分割整備時間(separable setup time)、加工順序相依的拆卸時間(separable dependent removal time)以及搬運時間等因素，進行各工作於各階段機台之加工順序安排。研究之進行，首先以總完工時間最小化為目標，建構出數學模式對小規模問題求得最佳解。隨後對於中、大規模問題，則建構出粒子群最佳化演算法(更新方式一、更新方式二)及基因演算法等兩種演算法進行求解，並分別對兩種演算法中進行實驗設計及測試分析，提出各規模下之建議參數設定，且由實驗結果顯示PSO更新方式二在三演算法中有最佳的求解品質。

關鍵詞 : 非等效平行機台 ; 多階段流程型排程 ; 阻隔條件 ; 粒子群最佳化演算法 ; 基因演算法

目錄

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