

Sequencing heuristic for bicriteria scheduling in a single machine problem

Wen-Jinn Chen^{1, *}

Su-Mei Lin²

Jia-Chi Tsou¹

¹ *Department of Business Administration*

China University of Technology

No. 530, Sec. 3, Zhongshan Rd.

Hu-Kou, Hsin-Chu 303

Taiwan

R.O.C.

² *Department of Marketing and Logistics*

China University of Technology

Hsin-Chu

Taiwan

R.O.C.

Abstract

This paper considers the problem of minimizing the maximum tardiness and the variance of completion times on a single machine. A heuristic is developed to find the optimal schedule for a linear objective function of two criteria by generating only a small set of the efficient schedules. The proposed heuristic is useful to a decision maker since he or she can easily select an optimal schedule from the small set of efficient schedules. A numerical example is given to illustrate the presented heuristic. Computation results are provided to demonstrate the effectiveness of the heuristic.

Keywords : *Scheduling, maximum tardiness, completion times, efficient schedule.*

*E-mail: cwj@cute.edu.tw

Journal of Information & Optimization Sciences

Vol. 27 (2), No. 2, pp. 459–468

© Taru Publications

0252-2667/06 \$2.00 + 0.25