An Approach by Mutiple-Machine Scheduling in Bi-Criteria

E-mail: 8515898@ mail.dyu.edu.tw

ABSTRACT

In general, the researchers deal with the bicriteria scheduling problem, usua-lly, into two phases. First, the schedule generation-using some kinds of disp-atching procedures or rules generate a feasible schedule. Second, objective e-valuation- employing a variety of multiple objective techniques or decision ma-king theory evaluate the performance of the schedules generated, then, select the better one. In this research, first, we proposed a heuristic algorithm forminimizing two criteria, known as mean flow time and mean tardiness,schedulignproblem in a job shop environment simultaneously. To illustrate the potentialimpact of this problem, we simulate the schedulign jobs with some known tradi- tional dispatching procedures under a variety of conditions. Experimental res-ults are analyzed to show the adaptability of the addressed algorithm. In add-ition, an modified neighborhood searching is taken to improve the solution qu-ality.

Keywords : Scheudling Problem ; Heuristic ; Algorithm ; Bicritreia

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