

Minimizing Mean Tardiness Subject To Unspecified Minimum Number Tardy For A Single Machine

BenDaya, M; Duffuaa, SO; Raouf, A

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King Fahd University of Petroleum & Minerals

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Summary

In this paper we propose a hybrid branch and bound algorithm for solving the problem of minimizing mean tardiness for a single machine problem subject to minimum number of tardy jobs. Although the minimum number of tardy jobs is known, the subset of tardy job is not known. The proposed algorithm uses traditional branch and bound scheme where lower bounds on mean tardiness are calculated coupled with using the information that the number of tardy jobs is known. It also uses an insertion algorithm which determines the optimal mean tardiness once the subset of tardy jobs is specified. An example is solved to illustrate the developed procedure.

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