

**Choosing a criterion to evaluate flow shop with penalties for lateness and earliness.**

**Abstract.**

In the past two decades a considerable amount of research was spent on scheduling jobs on one machine with common due date and penalties for earliness and lateness. It is a direct result on the demand to improve the flow of materials under just-in-time system and Goldratt's DBR system. A survey of articles published by Lauff and Werner (2004) discussed the complexity of the similar challenge for multimachine problem. In our presentation, we will discuss the conflict that arises between various criteria when evaluating scheduling priorities for two-machine flow shop.