عنوان مقاله:

Flow Shop Production Scheduling With Reverse Flows and Maintenance

محل انتشار:

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خلاصه مقاله:

One of the important topics in the flexible workshop production systems is to pay attention to the reverse flows within the assembly/separation network. This paper develops the mixed-integer linear programming (MILP) model for flow shop planning with reverse flows. It considers the real world situation, including predetermined and condition based maintenance, and possibility and impossibility of interfering with repairs. The problem under study is NP-hard, a set of machines is stationed in the workshop and two direct and reverse flows of jobs that have a certain production sequence are placed on the machines to perform the production process. In addition, two objectives are defined for the problem. The first objective is to minimize the maximum completion time (makespan) and the second objective is to minimize the weighted average time of the presence of jobs with different weights (weighted flow time). All optimal solutions are provided with GAMS software and in a definite state.

کلمات کلیدی:

Scheduling, Flow shop, Reverse flows, Maintenance

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