

## عنوان مقاله:

Unrelated Parallel-Machines Scheduling by Simultaneous Consideration of Preventive and Emergency Maintenance

## محل انتشار:

دومین کنفرانس بین المللی نوآوری در مدیریت کسب و کار و اقتصاد (سال: 1399)

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## خلاصه مقاله:

Considering maintenance strategy in models which schedule and allocate jobs to machines, will make the proposed models compatible with production environments. Furthermore, this will cause higher model efficiency in optimizing the production systems. To this end, a mathematical model for scheduling unrelated parallel machines is developed to minimize total weighted completion times. Also in this approach, availability constraints have been considered, and preemption is allowed. Due to executing preventive maintenance and emergency maintenance programs, machine inaccessible times have been added to job completion times. Since the proposed model has high complexity, in order to solve the problem, two meta-heuristic methods including simulated annealing and genetic algorithm are used. In addition, their performances are compared to each other. The results indicate the superiority of simulated annealing over genetic algorithm for this particular problem.

## کلمات کلیدی:

Unrelated parallel-machine scheduling, preventive and emergency maintenance, total weighted completion times, metaheuristic algorithms

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1121195>

