

عنوان مقاله:

Electromagnetism-like algorithm for permutation flowshop

محل انتشار:

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خلاصه مقاله:

Problem of scheduling in permutation flowshop is dealt with by minimizing the makespan. If there are more than three machines, then it is NP-complete problems and should be solved by metaheuristic algorithm. The objective of this article was to minimize total flowtime of jobs. To this end, the algorithm of electromagnetism-like method (EM) was applied, which utilized an attraction-repulsion mechanism to move the sample points toward optimality. The computational results demonstrated that EM was robust in practice. Moreover, this algorithm had two other advantages: i: simplicity of application and ii: occupying minor memory capacity. In the first stage, the base algorithm was developed by compensating for the lack of convergence. In the second stage, the parallel algorithm was applied.

Finally, results of the algorithm were compared with those of other algorithms

کلمات کلیدی:

Permutation flowshop; Scheduling; Makespan; Total flowtime; Electromagnetism

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