

عنوان مقاله:

Using Multi-objective Simulated Annealing Algorithm to Solve a Multi-objective Facility Layout Problem in Dynamic Cellular Manufacturing

محل انتشار:

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خلاصه مقاله:

In cellular production, the production system is aimed at transforming several subsystems into a cell in order to produce similar products in a cell with a higher efficiency. In this paper, a multi-objective model in the layout-routing problem of cell production with the goal of minimizing costs, maximizing the level of service to customers has been addressed and solved using the meta-heuristic algorithm MOSA. The results of solving a bi-objective model using this meta-heuristic algorithm with its results in its previous solution method, the meta-heuristic algorithm NSGAI and the Epsilon constraint method showed that MOSA is able to provide better responses than NSGAI for large-scale issues. That is, at approximately equal times, algorithm MOSA was able to produce more accurate and better answers for the second objective function.

کلمات کلیدی:

Cellular Production; Multi-objective Model; Meta Heuristic Algorithms; MOSA; NSGAI; Epsilon Constraint

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