عنوان مقاله:

New heuristic Approach to Solve the fixed charge transportation problem with incremental Discont

محل انتشار:

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خلاصه مقاله:

The fixed charge transportation problem (FCTP) is a deployment of the classical transportation problem in which a fixed cost is incurred, independent of the amount transported, along with a variable cost that is proportional to the amount shipped. Since the problem is considered as an NP-hard, in this paper we propose new heuristic along with well-known metaheuristic to solve the FCTP with incremental discount on both fixed and variable charges. In addition, since the researchers recently used the priority-based representation to encode the transportation graphs and achieved very good results, we consider this representation in metaheuristic and compare the results with the proposed heuristic. Furthermore, we apply the Taguchi experimental design method to set the proper values of algorithm in order to improve its performance. Finally, computational results of heuristic and metaheuristic, both in terms of the solution quality and computation time, are studied in different problem sizes.

کلمات کلیدی:

Fixed charge transportation problem, Incremental discount, Heuristic, Priority-based

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