

Solving a distribution network design problem by means of evolutionary algorithms

Cabrera G.

Niklander S.

Cabrera E.

Johnson F.

In this paper a simple and efficient evolutionary algorithm is implemented to solve a Distribution Network Design problem (DND). The DND problem that we address here integrates inventory policies with location/allocation decision making. This problem, also known as Inventory Location Modeling problem, is a complex combinatorial optimization problem that cannot be solved by exact methods as the number of decision variables increases. We compare our algorithm to previously implemented algorithms. Our evolutionary approach is shown to be very competitive in terms of both objective function value and execution time. © 2017, All Rights Reserved.

Combinatorial optimisation

Distribution network design

Evolutionary algorithm

Logistics