

عنوان مقاله:

Stochastic Approach to Vehicle Routing Problem: Development and Theories

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خلاصه مقاله:

This article proposes a stochastic vehicle routing problem within the frame-work of chance constrained programming where one or more parameters are presumed to be random variables with known distribution function. The reality is that once we convert some special form of probabilistic constraint into their equivalent deterministic form then a nonlinear constraint generates. Knowing that reliable computer software for large scaled complex nonlinear programming problem with 0-1 type decision variables for stochastic vehicle routing problem is not easily available merely then the value of an approximation technique becomes imperative. In this article, theorems which build a foundation for moving toward the development of an approximate methodology for solving the stochastic vehicle routing problem are stated and proved. Using these theorems one can easily convert a nonlinear type vehicle routing problem of special type into an equivalently designed linear problem that can be solved fast and easy.

کلمات کلیدی:

Vehicle Routing Problem, Chance Constrained Programming, Linear approximation, Optimization

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