
On the Ground Transportation Process and Costs within the Bi-Objective Insular Traveling Salesman Problem

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Abstract

Insular Vehicle Routing Problems have been recently introduced in the literature, in which visit sequences and port/node selection for a set of island or isolated regions to be served must be simultaneously optimized. The ground transportation process inside the islands and the related costs are relevant distinctive features of these problems, in contrast to similar works in related literature, such as the Generalized Vehicle Routing Problems. This research analyzes alternative formulations for the ground transportation process inside the islands, exploring different related assumptions. Moreover, this paper aims at analyzing the results regarding solution quality and structure, and computational performance.

Keywords: Insular Vehicle Routing Problems, Bi, Objective Insular Traveling Salesman Problem, Ground Transportation Costs, Exact and Approximated Models.

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