Solving IFRI Transportation Problem: A Case Study

Abdelouhab Aloui[1], Megdouda Ourbih-Tari[2], Nessma Maameri[3], Soraya Saghi[4] and Kamal Amroun[5]
[1,5]Limed
[2,3,4]Applied Mathematics Laboratory
Faculty of Exacts Sciences
University of Bejaia, Algeria
[1]alouiabdel@gmail.com
[2]ourbihmeg@gmail.com

Abstract

The problem of distribution of products in an economic company can be seen as a transportation problem, which is a combinatorial optimization problem of class P widely studied. The transportation problem is a linear problem solved using the Simplex method or other methods. In this paper, we are concerned by a case study of LLC IFRI. We proposed a linear model for managing the distribution of mineral waters pallets at the LLC IFRI and we have solved the transportation problem using the Excel solver. This allowed us to have an optimal plan of transport by reducing transportation costs.

Keywords
Modeling, Optimization, Transport algorithm, Excel solver.

Biography

Dr. Abdelouhab Aloui received the engineer diploma in computer science from university Mouloud MAMMERI (Algeria) in 2001, and he got the Magister degree (2005) and Doctorate degree in Computer Science at the University of Bejaia in 2011. His research interests include the Simulation of Monte Carlo, optimization and meta-heuristics.