

# **Abstract**

**Khaled S Abdallah**

## **Exact Solution for Vehicle Routing Problem with Semi-hard Resource Constraints**

This paper presents an exact solution procedure for a vehicle routing problem with semi-hard resource constraints where each resource requirement can be relaxed to a pre- fixed extent at a predefined cost. This model is particularly useful for a supply chain coordination when a given number of vehicles cannot feasibly serve all the customers without relaxing some constraints.