

## **Tabu Search Algorithm for Ship Routing and Scheduling Problem with Time Window**

**Authors :** Khaled Moh. Alhamad

**Abstract :** This paper describes a tabu search heuristic for a ship routing and scheduling problem (SRSP). The method was developed to address the problem of loading cargos for many customers using heterogeneous vessels. Constraints relate to delivery time windows imposed by customers, the time horizon by which all deliveries must be made and vessel capacities. The results of a computational investigation are presented. Solution quality and execution time are explored with respect to problem size and parameters controlling the tabu search such as tenure and neighbourhood size.

**Keywords :** heuristic, scheduling, tabu search, transportation

**Conference Title :** ICCMAM 2017 : International Conference on Combinatorial Methods and Applications in Mathematics

**Conference Location :** London, United Kingdom

**Conference Dates :** January 19-20, 2017