# The Vehicle Routing Problem with Backhaul Consideration

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#### **ABSTRACT**

The purpose of this thesis is to develop a long term memory tabu search algorithm for a special vehicle routing problem which is based on classical vehicle routing problem with truck size limit and backhaul consideration. In this research, the algorithm is divided into two stages: first, an initial solution is generated by NNP(Neatest neighbor procedure) then a tabu search structure is used to improve the initial solution which is generated in the first stage. Finally, some examples are compared with the former research to show the feasibility of the constructed heuristics.

Keywords: Backhaul; Tabu search; Long term memory

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