Abstract

Vehicle Routing Problem with Time Window (VRPTW), an extension of VRP, is a complex combinatorial problem having many real life applications. It can be described as the problem of minimizing the total route cost while satisfying the capacity and time window constraint. Ant Colony System (ACS) is a meta heuristic that is often applied to solve VRPTW. In this paper an attempt has been made to enhance the already existing ant colony system to solve the problem efficiently. Experimentation with the Solomon data sheet is performed and compared with best known results available in literature.

References

- Gambardella, Luca Maria, Éric Taillard, and Giovanni Agazzi. "Macs-vrptw: A multiple colony system for vehicle routing problems with time windows." New ideas in
optimization. 1999.

- Soo, Raymond Kuo Yang, and Yong Haur Tay. "A survey on the progress of research on vehicle routing problem with time window constraints." Symposium on Progress in Information and Communication Technology (SPICT).

Index Terms
Keywords