Abstract

In this paper, the Ant Colony Optimization Technique has been applied in different network models with different number of nodes and structure to find the shortest path with optimum throughput. Three variations of the Ant Colony Optimization Technique, ACO1, ACO2 and ACO3 has been proposed and applied on different standard network models and the results has been analyzed and concluded. A Tabu list is also maintained for a network with large number of nodes and results were collected to find the optimum size of the Tabu list in one of the algorithms proposed here. Experiments have also been performed by varying the load of the network. Here the throughput and the reliability of the network has been specially taken as the performance factor of the network.

Reference

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Index Terms
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