New Approach for Solving Dynamic Traveling Salesman Problem with Hybrid Genetic Algorithms and Ant Colony Optimization

Abstract

Dynamic travelling salesman problem (DTSP) is one of the optimization issues which it is not solvable with classical methods. To solve this problem, various solutions in the literature can be seen that each has advantages and disadvantages. Genetic Algorithm (GA) and Ant Colony Optimization (ACO) have been good to solve the DTSP. In this paper, we highlight a new algorithm by combining genetic and ACO which gives us a better solution for DTSP. In hybrid algorithm, suitability of algorithm and travelled distance for DTSP has been considered. Obtained results suggest that Hybrid algorithm does not establish easily in the local optimum and possesses a good speed in convergence for comprehensive answer.

References

- Dorigo, M., & Gambardella, L. M., "Ant colony system: a cooperative learning
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Index Terms

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