

iteration. Therefore, it can be concluded that the combination of genetic algorithm and ant colony optimization can provide a better optimal solution for the traveling salesman problem with a shorter number of iterations.

6. Conclusion

The optimal route for the movement of crew boats to support routine offshore oil and gas production operations can be obtained using a combination of genetic algorithm and ant colony optimization. This research concludes that the combination of genetic algorithm and ant colony optimization can provide a better optimal solution for the traveling salesman problem with a shorter number of iterations than using genetic algorithm alone. The authors need to convey that this research only considers the route for the routine movement of one crew boat unit without considering external factors, such as weather conditions, waves, and sea currents.

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