



**PROJECT REPORT  
FINDING SHORTEST PATH USING  
DIJKSTRA ALGORITHM**

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**STATEMENT OF ORIGINALITY**

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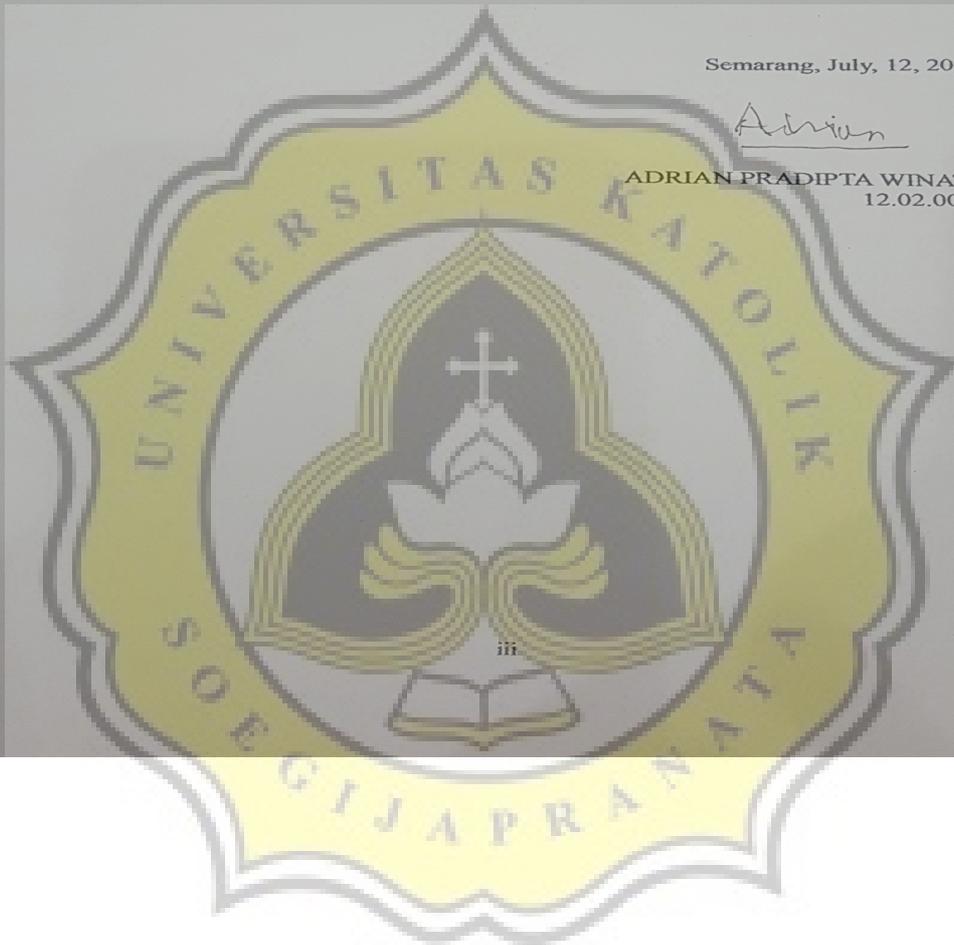
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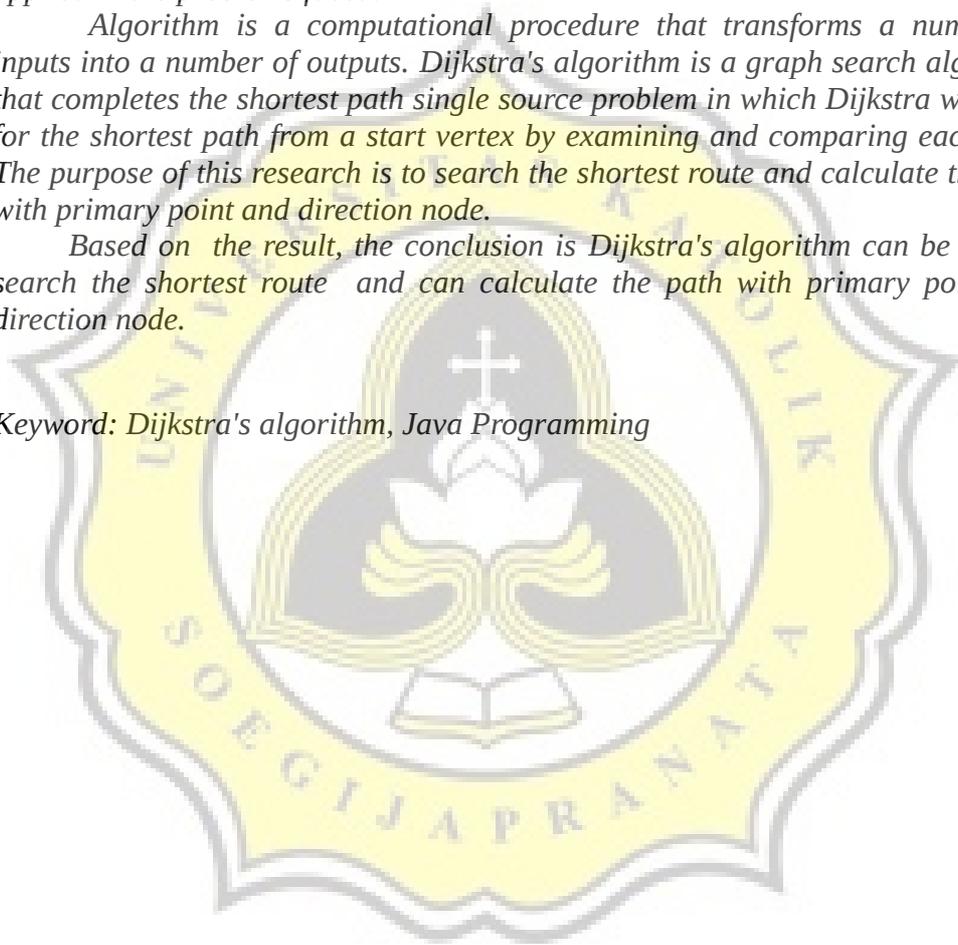
## ABSTRACT

*Advances in information technology is now increasingly widespread and very rapidly growing, so it can help people to enjoy the various conveniences that have been generated by these technologies. The main problem of finding the shortest route is of course to find the shortest route or path possible. But for its implementation, this issue can be expanded more widely among others to find the minimum cost, etc. The point is to find the most effective solution that can be applied in the problems faced.*

*Algorithm is a computational procedure that transforms a number of inputs into a number of outputs. Dijkstra's algorithm is a graph search algorithm that completes the shortest path single source problem in which Dijkstra will look for the shortest path from a start vertex by examining and comparing each path. The purpose of this research is to search the shortest route and calculate the path with primary point and direction node.*

*Based on the result, the conclusion is Dijkstra's algorithm can be used to search the shortest route and can calculate the path with primary point and direction node.*

*Keyword: Dijkstra's algorithm, Java Programming*



## PREFACE

Dijkstra algorithm is algorithm can determine shortest path with compare the result distance with the other result distance. How Dijkstra know that is the shortest path? Dijkstra know by find the minimum result destination. So the problem can solve just with Dijkstra Algorithm. The differences of this study with previous studies done is the djikstra research has never been used in java programs and has never been the one to find the shortest route through the djikstra algorithm.

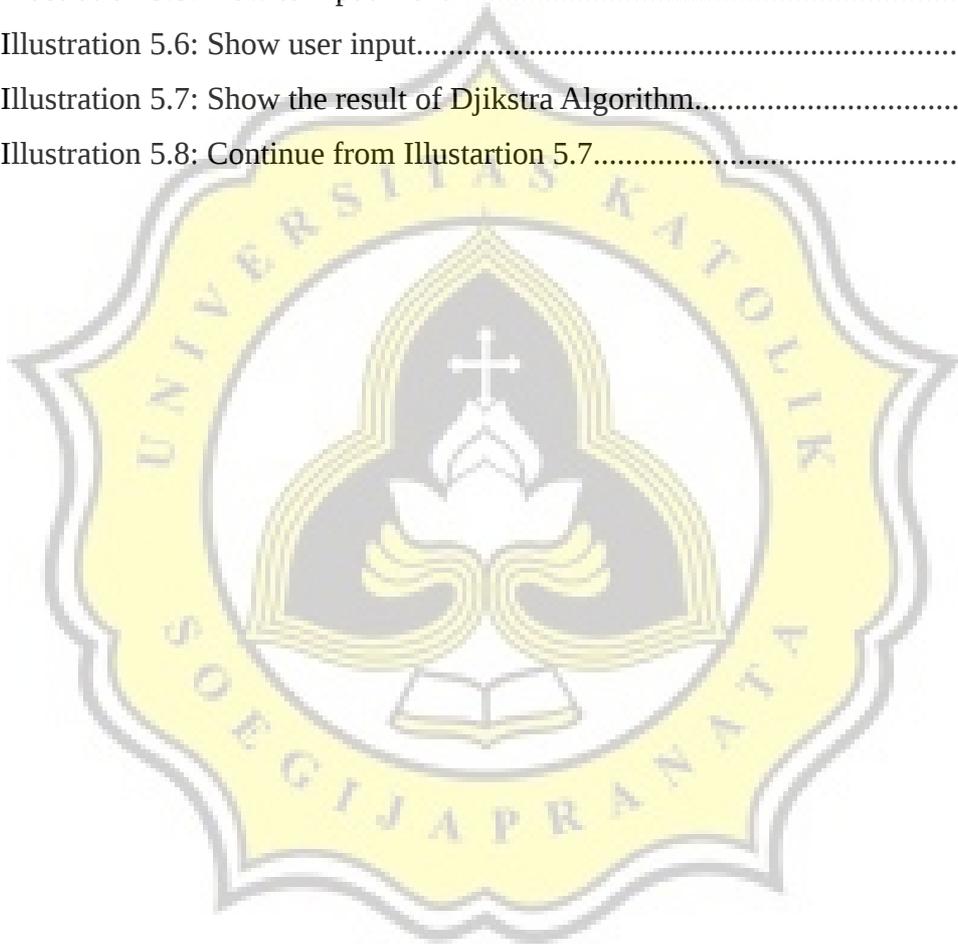
The analysis start after the writer searching for the journals that related to the topics that is djikstra algorithm and read all the journals. After that, the writer search the new idea that different with the previous studies. The writer found the new idea and originality about the djikstra algoritm based on node routes in the city after that to find the shortest route in the city. After that the writer makes djikstra algorithm to calculate the shortest path, and make in java programming. After the programmes finished, the writer try if the content suitable with the procedure and after that make the report. Based on the result and discussion Dijkstra algorithm can be used to search the shortest route, Dijkstra algorithm can calculate the path with primary point and direction node.

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