





PROJECT REPORT  
FIND THE SHORTEST AND THE LONGEST  
TRAVELLING TOURISMS PATH IN CENTRAL JAVA  
USING DEPTH FIRST SEARCH ALGORITHM

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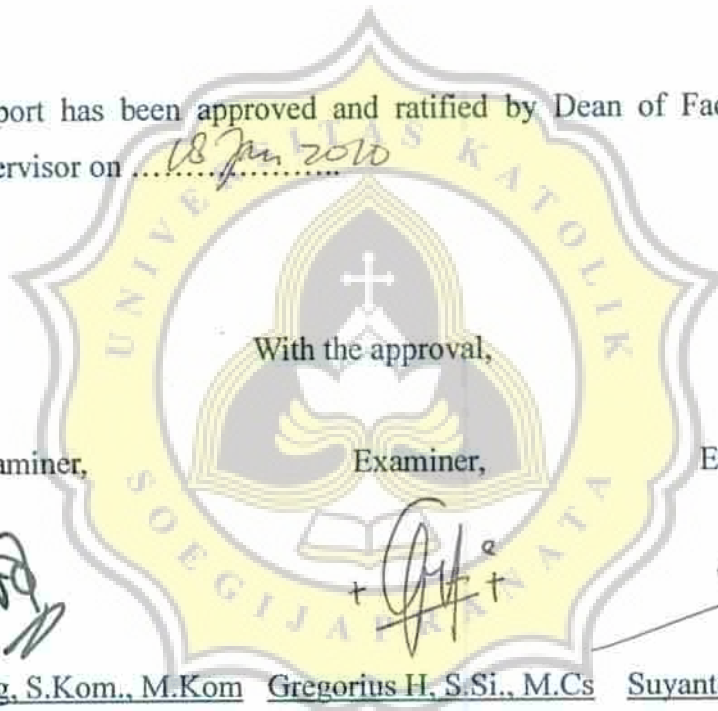
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**APPROVAL AND RATIFICATION PAGE**

**PROJECT REPORT**

**Find The Shortest and The Longest  
Travelling Tourisms Path in Central Java  
Using Depth First Search Algorithm**

This Project Report has been approved and ratified by Dean of Faculty of Computer Science and Supervisor on 18 Jun 2010



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If it is proved in later days that the project is the result of rubbing, hence I settle for sanction.



Semarang, 14 January 2010

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## **FOREWORD**

The project of Find The Shortest and The Longest Travelling Tourisms Path in Central Java Using Depth First Search Algorithm has given me a lot of new experience and knowledge. I couldn't finish this project and report without help from God and a lot of people. So in this opportunity, I would like to thank:

1. Jesus Christ for His blessing that He gave for me. Thank you Lord.
2. My Family, my Mom, Dad and my Sister for their prayer and support.
3. Mr. Hironimus Leong, S.Kom., M.Kom, as the Dean of Faculty of Computer Science for giving me some useful suggestions.
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8. And also other people that can not be mentioned one by one.

Last but not least, I would like to apologize if I made mistakes in finishing the project and writing this report. Therefore, critics and suggestions are expected.

Semarang, 14 Januari 2010

Hanny Maeda Hasnani

## ABSTRACT

*The Application which is reported, is similar with the Travelling Salesman Problem (TSP) application. The concept of TSP is applied in the travelling tourism case at Central Java by adding other requirements. The requirements are the limitation of distance and time. Most of TSP applications are only talk about the shortest travelling path. But, in a certain condition some tourists desire to visit a lot of places in the limited time. Therefore, this application is added with the longest path solution. So the tourist can visit more places with distance or time given.*

*This application find the shortest and the longest path, developed using Tree as data structure and Depth first search algorithm is used to search the paths. In outline it ways of working is checking first location and other location that is become the destination, after tree data structure is built then algorithm will compare every node already being formed by tree data structure to find the destination. And each possible that gotten by one aims to go to all place that is wended will be kept and all is featured in GUI (Graphical User Interface). This program also enhanced with time count, so gets to be known total time for each travelled distance which will be passed through.*

***Keyword : Shortest Path, Longest Path, Tree Data Structure, Depth First Search Algorithm, Tourism, Travelling Tourism Problem***

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