



PROJECT REPORT

HAVERSINE ALGORITHM IMPLEMENTATION FOR NODEMCU ESP8266 BASED HOME SECURITY SYSTEMS



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**Faculty of Computer Science
Soegijapranata Catholic University
2021**

APPROVAL AND RATIFICATION PAGE



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ESP8266 BASED HOME SECURITY SYSTEMS

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6. I have acknowledged all main sources of help.
7. Where the work is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself.

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Sincerely



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ACKNOWLEDGMENT

First of all, I thank Allah SWT for His blessing, I was able to complete the final project smoothly and successfully. This final project is a requirement to take the Undergraduate Examination in Computer Science, Informatics Engineering Study Program, Soegijapranata Catholic University, Semarang.

In the preparation and preparation of this final project, I have always been supported by the people around me, special thanks to:

1. Parents, brother and family who always provide support and prayers while working on this final project.
2. Y.B. Dwi Setianto as my supervisor who has guided and provided direction to me during the work on this final project and so that this final project can be completed.
3. My girlfriend, Annisa Silvy Anggribudiyani who always prays and gives me encouragement when I'm tired and feel like giving up.
4. My friend Jevon Sanjaya who always gives motivation and confidence during the final project.
5. And parties that I may not be able to mention one by one who have supported and prayed for me during the work of this final project.

Semarang, July 9, 2021



AGUS SETIAWAN

ABSTRACT

Currently, home security is very important, especially for residents who often travel far. Because by looking at the current condition, there are a lot of thefts that occur when the house is empty and current thefts do not see the time. Because during the day there are also frequent thefts. With an empty house, it can make it easier for someone to enter the house and steal items in the house. And not always the security system in the community is always ready. Therefore, a smart home security system was created that was able to detect conditions in the house, if the occupants of the house were away or not at home.

So I designed a tool for an IOT-based smart home security system that uses a sensor to detect the movement of someone who trespassed into the house. With this tool can provide a sense of security when the house is empty. So that the installation of this tool in the area of the house is able to detect movements that have occurred. Apart from detecting, this tool is also capable of sending notifications that are sent to the closest security post in the area of the house when the sensor detects movement. Sending these notifications can make it easier for security officers to increase their sense of vigilance

So the smart home security sensor system that I created can detect movements that occur in the house and send security notifications received by security officers who are near the home area. Of course, this home security system tool needs to be installed in a strategic area, where someone can pass this place. The sensor that I installed also has a wide range of angles and distances,

Keyword: IOT, security, system.

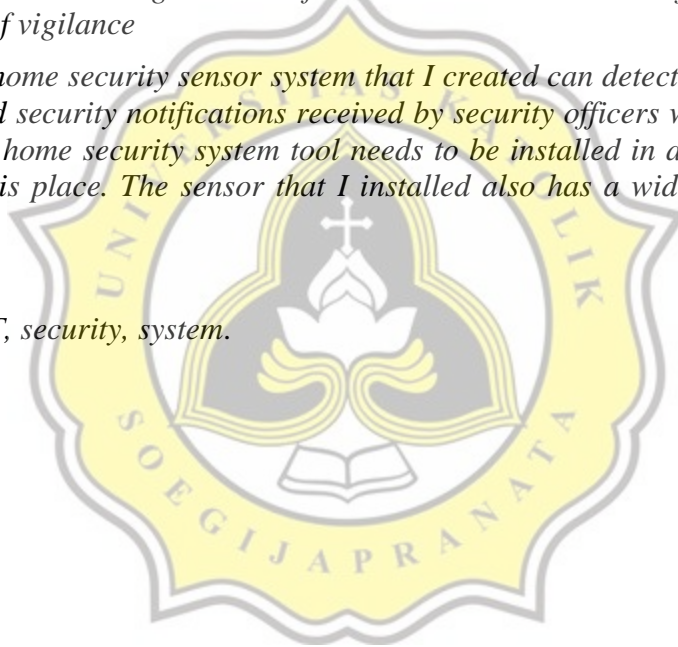
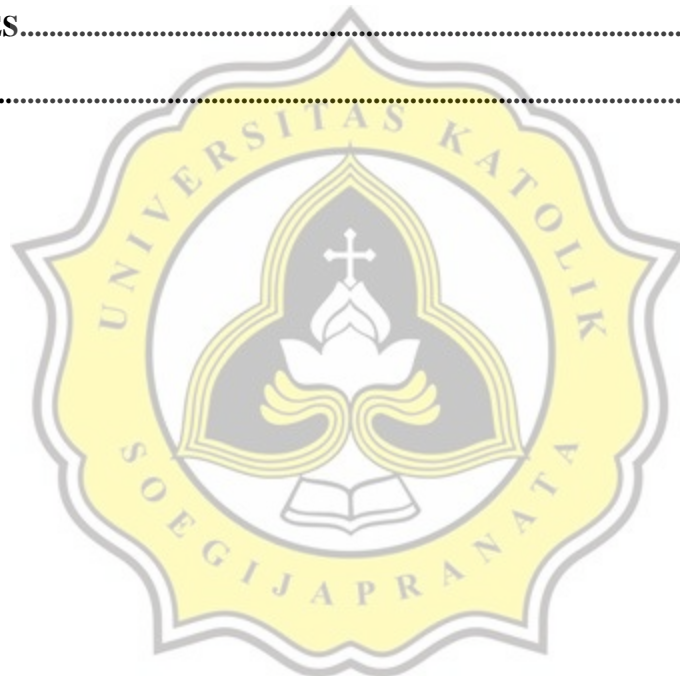


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