



PROJECT REPORT

AUTOMATIC FAN SYSTEM ACCORDING TO HUMAN MOVEMENT AND TEMPERATURE

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17.K1.0048

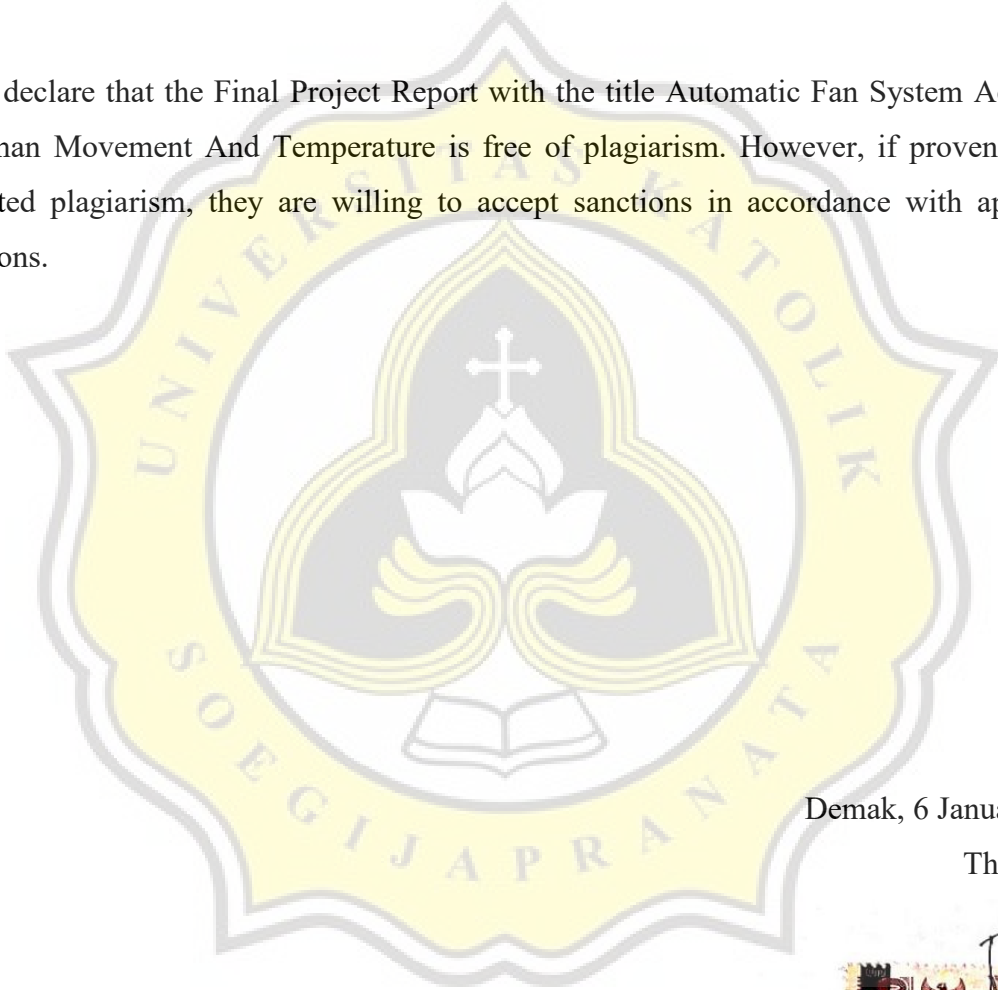
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2022**

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ACKNOWLEDGMENT

I would like to express my gratitude to God Almighty who has always bestowed His graces and gifts so that I can complete this Final Project. The purpose of the preparation of this Final Project is to fulfill the requirements to complete the Undergraduate Program at the Faculty of Computer Science, Study Program of Technical Information, Soegijapranata Catholic University, Semarang.

On this occasion I would like to thank the people around me for the support, guidance and advice. Thanks to :

1. My family, especially my mother, who always gives encouragement and prays for me so that it is always easy for me to work until I can complete this Final Project.
2. Mr. YB Dwi Setianto as my supervisor who has guided, provided motivation and direction during the completion of the Final Project.
3. My best friend, Hana Silma Hadana, who always listens to complaints, motivates and reminds her not to give up.
4. Adrian Syaptia Bagaskara who always listens to my complaints, supports and prays for me while working on my final project and reminds me not to give up.
5. Mutia Ajeng Safitri who always gives encouragement during the final project.
6. And friends who have given me encouragement and enlightenment when I was confused while working on my final project.

Demak, 6 January 2022



Restu Widya Grandis

ABSTRACT

Currently, many people still use fans for air conditioning because AC costs more. But without them knowing the use of a fan can also cause costs to be expensive. One of the reasons is when people leave the room but don't turn off the fan first, citing forgetting or being in a hurry. In addition, there are also those who cannot watch television quietly, because they have to go back and forth to get the right wind or just increase and decrease the fan speed. Then an automatic fan system was made that can turn off and on by itself at a speed that adjusts the room temperature right away so that fan users don't have to worry about costs anymore and are calmer when leaving the room or watching television.

So I designed a tool for an IoT-based automatic fan system using an LM35 sensor to detect room temperature, an Ultrasonic sensor to detect the distance between the fan and an object, a Servo Motor to move the fan to the right and left, and LED as an indicator light. The values obtained from the LM35 sensor and Ultrasonic sensor are processed into the Fuzzy Sugeno algorithm to determine the fan speed and the brightness level of the LED.

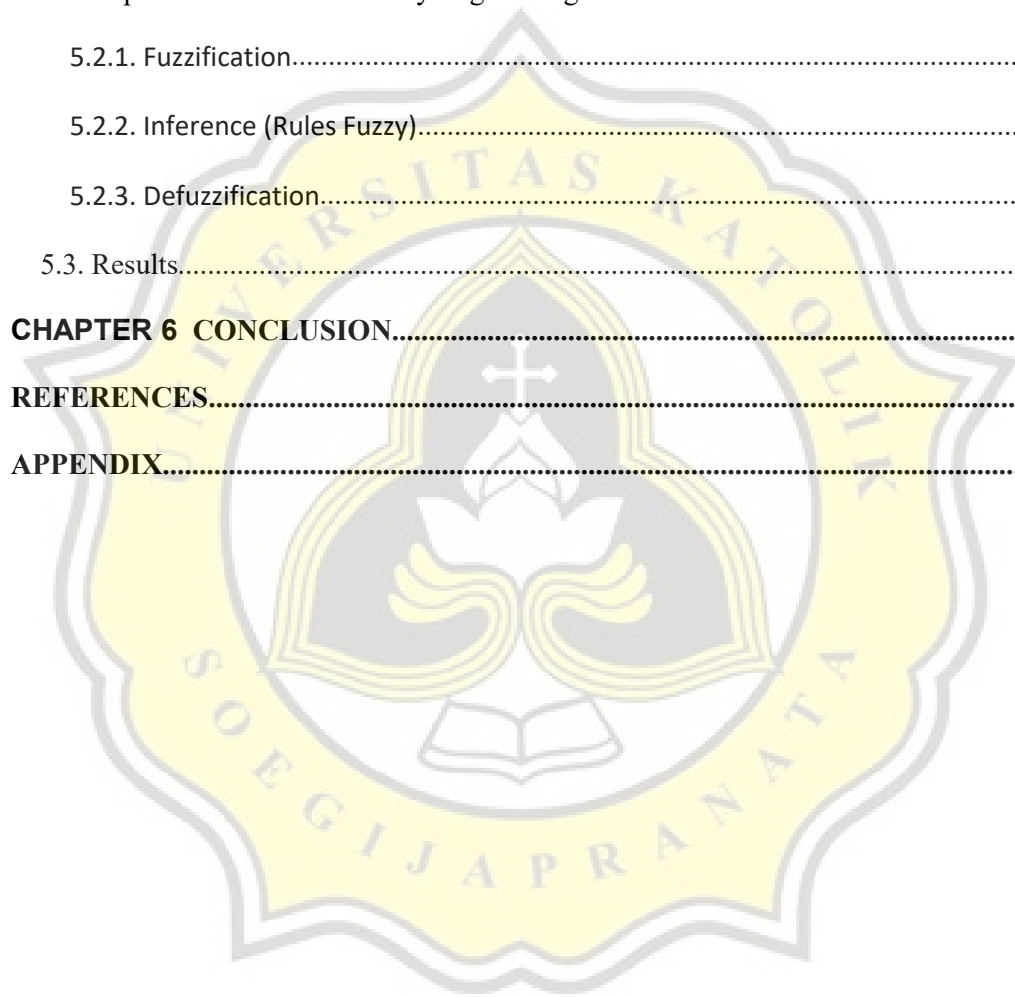
The end result is that the fan can turn on and off by itself at a speed that adjusts the temperature in the room and the distance between the object and the fan. Of course, the fan can also rotate right and left if the ultrasonic sensor detects a person on the right or left.

Keyword: fan, LM35, Ultrasonic, Sugeno.

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