IMPLEMENTATION OF IOT-BASED SYSTEM FOR MONITORING ROOM CONDITION

UNDERGRADUATE FINAL PROJECT

Submitted as one of the requirements to obtain
Sarjana Komputer (S.Kom)

By:

RAIHAN AKBAR

001202000036

FACULTY OF COMPUTING

INFORMATICS STUDY PROGRAM

CIKARANG

APRIL 2023

PANEL OF EXAMINER APPROVAL

The Panel of Examiners declare that the undergraduate thesis entitled **Implementation of IOT-Based System for Monitoring Room Condition** that was submitted by Raihan Akbar majoring in Informatics from the Computing was assessed and approved to have passed the Oral Examination on 18 April 2023

Panel of Examiner

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Cutifa Safitri, B.Sc, M.IT, Ph.D

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In my capacity as an active student of President University and as the author of the final project undergraduate thesis/final project/business plan stated below:

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I hereby declare that my final project entitled "**Implementation of IOT-Based System for Monitoring Room Condition**" is to the best of my knowledge and belief, an original piece of work based on sound academic principles. If there is any plagiarism detected in this final project, I am willing to be personally responsible for the consequences of these acts of plagiarism, and will accept the sanctions against these acts in accordance with the rules and policies of President University.

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IOT-BASED SYSTEM FOR MONITORING ROOM CONDITION

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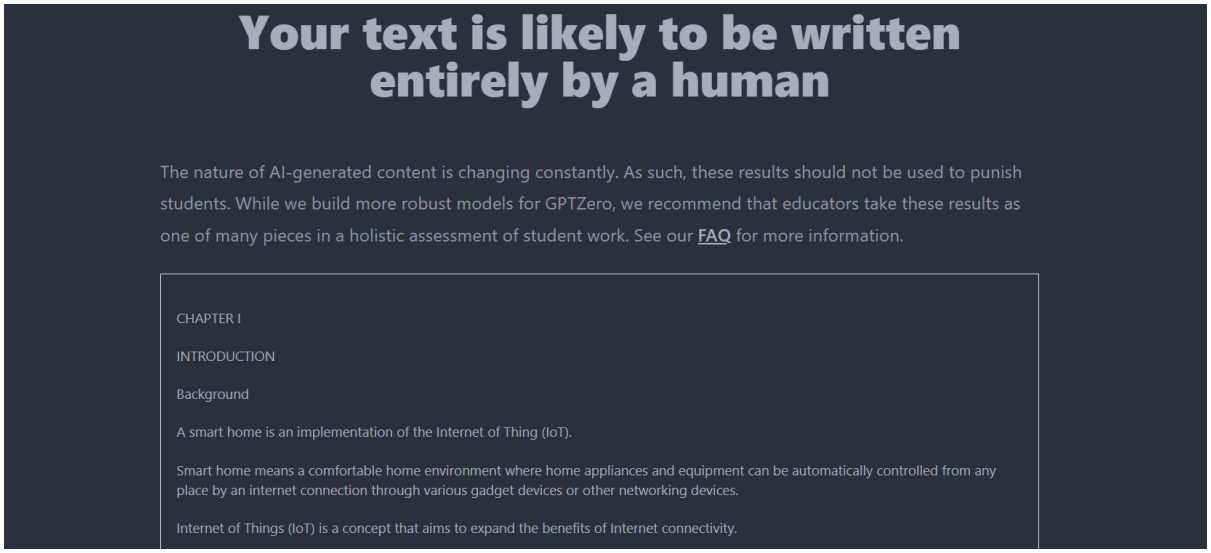
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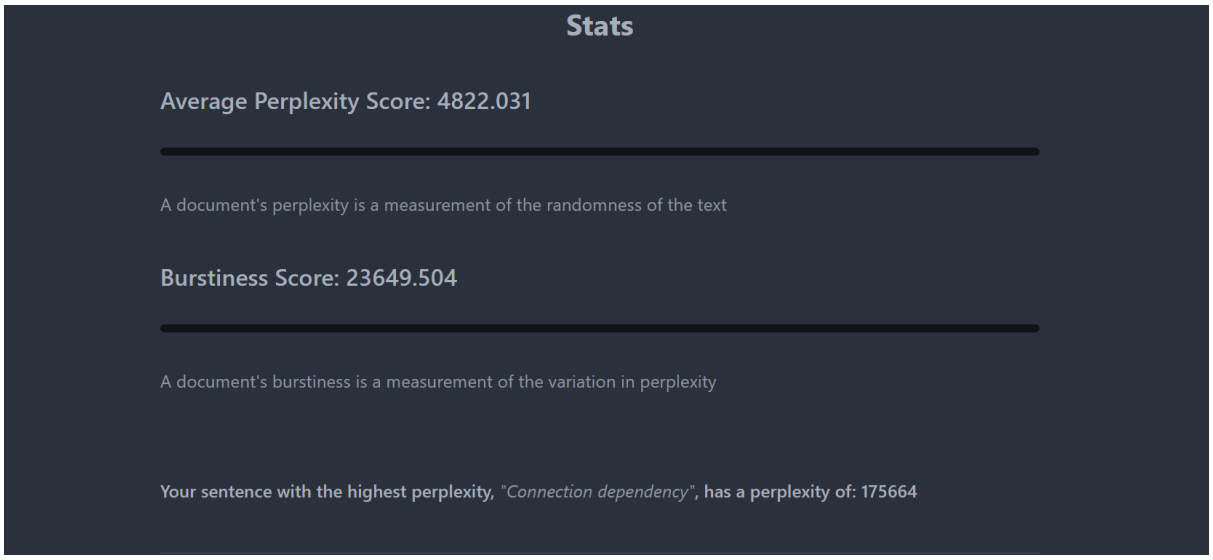
CHAPTER I
INTRODUCTION
Background
A smart home is an implementation of the Internet of Thing (IoT).
Smart home means a comfortable home environment where home appliances and equipment can be automatically controlled from any place by an internet connection through various gadget devices or other networking devices.
Internet of Things (IoT) is a concept that aims to expand the benefits of Internet connectivity.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ABSTRACT

Smart home is a home condition that uses technology to control the situation of the house and electronic devices. Of course, this system is very useful to be able to monitor the condition of the house through gadgets. An example of this monitoring system includes fire alarms, ambient temperature, and humidity.

In this project, the author decided to use Arduino as a tool to receive and send sensor data to the database. The data from the database will be sent to the web application using an API. The author used the CodeIgniter 4 framework to create the web application. This web application is designed by the author to be more user-friendly and responsive so that it can be used on various gadgets.

This project aims to help people easily monitor utility usage at home, control electronic devices to reduce excessive electricity costs. The author hopes that this project can be useful for all Indonesian citizens.

ACKNOWLEDGEMENTS

In the Name of Allah, the Most Merciful.

I would like to express his deepest gratitude to Allah SWT, the Creator of the universe, and to the Prophet Muhammad SAW, his family, and companions, for their guidance and blessings.

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