



PROJECT REPORT
DESIGNING THE AUTOMATED SMART
ARDUINO UNO-BASED AUTOMATIC TRASH
ANALYSIS AND MONITORING SYSTEM

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2020

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Judul Tugas Akhir: : Designing The Automated Smart Arduino Uno-based Automatic Trash
Analysis And Monitoring System

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ACKNOWLEDGEMENTS

There is no word that the author would say thanks to God for His blessing and mercy so that the author can accomplish this thesis. The writing aims to fulfill one of the conditions of scholarship at the Soegijapranata Catholic University majoring in Informatics Engineering at the Faculty of Computer Science. In the implementation of research until the making of this thesis, many writers experienced difficulties and obstacles. But thanks to the firmness and patience of the author, this final assignment can be solved as well. Countless thanks to the parents of the writer who always gave prayers, affection, and support both moral and material which is the greatest urge for writers to accomplish this final assignment.

Through this opportunity, the authors convey the greatest gratitude and appreciation that highest to:

1. Rector of Soegijapranata University of Semarang
2. Dean of Computer Science faculty Robertus Setiawan Aji Nugroho, ST., McompIT., P.hD
3. Head of the course Faculty of Computer Science Rosita Herawati, ST., MIT
4. Mr. Yb. Dwi Setianto, ST., M.Cs as supervisor at lecturer at Unika Soegijapranata majoring in Informatics Engineering.
5. Lectures in Unika Soegijapranata majoring in informatics engineering for valuable knowledge, and guidance during the year of my study.

Semarang, July, 10, 2020



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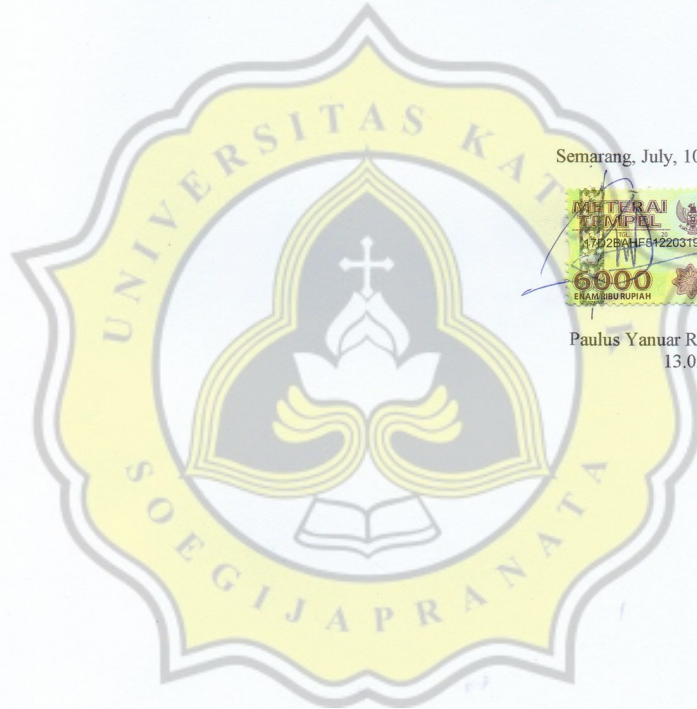
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ABSTRACT

Most of the lack of public awareness of the cleanliness of a location or place has become an issue that needs special attention. Due to the many we can see garbage scattered everywhere resulting in piles of garbage in the gutters, rivers and oceans which can cause damage to the ecosystem in the environment. So the design of this system is expected to help cleaning staff or the community in the efficiency of time and energy.

People nowadays often throw trash out of their place for various reasons such as lazy to throw rubbish in their place because the location of the garbage bin is far from the location of the activity, there is also because there are various piles of used or plastic items in one location and many people are prejudiced that the location it is a place to take out the trash. It is also often the garbage disposal officer who has difficulty in predicting the right time to transport and dispose of waste due to uncertain capacity or volume of waste every day. Therefore, the authors devised an automatic smart trash can with an Arduino Uno control system. People today often throw trash out of their place for various reasons such as lazy to throw rubbish in its place because the location of the rubbish bin is far from the location of the activity, there is also because there are various piles of goods used or plastic in one location and many people are prejudiced that the location is a place to dispose of garbage. It is also often the garbage disposal officer who has difficulty in predicting the right time to transport and dispose of waste due to uncertain capacity or volume of waste every day. Therefore, the authors designed an automatic smart trash bin with Arduino control system and some hardware such as Ultrasonic sensors, IR Obstacle sensors, GSM SIM 8001 Module and servo motors as well as a trash can that can open and close automatically which detects interactions with an objects with a certain distance and can send a notification via the janitor's cellphone or smartphone where this can help make it easier for janitors to know when the time is right by receiving a notification from the prototype of the smart trash can to come to the location and transport or dispose of waste at a location with which can help make it easier for janitors to know when the right time by receiving a notification from the prototype of the smart trash can to come to the location and transport or dispose of garbage at a location with efficient time and energy

The result of this research is a smart trash system that can operate with contact with an object and will send an information about the capacity of the trash can via mobile phones or smartphones to be immediately discarded and cleaned.

Keyword: Arduino UNO, Automatic Smart Trash Can, GSM SIM Module

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