



PROJECT REPORT
**Automatic Vehicles Counter Based on Heights
of Vehicles Passing with Ultrasonic Sensor**

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2020

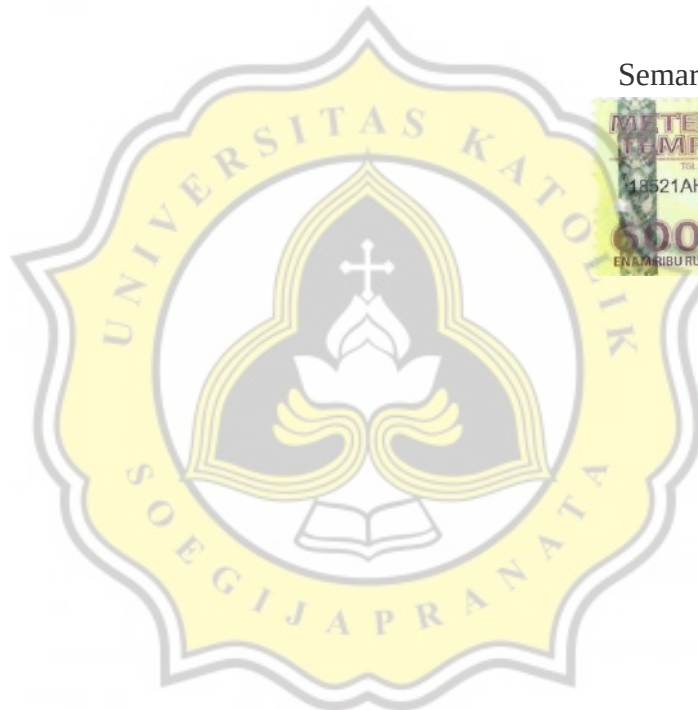
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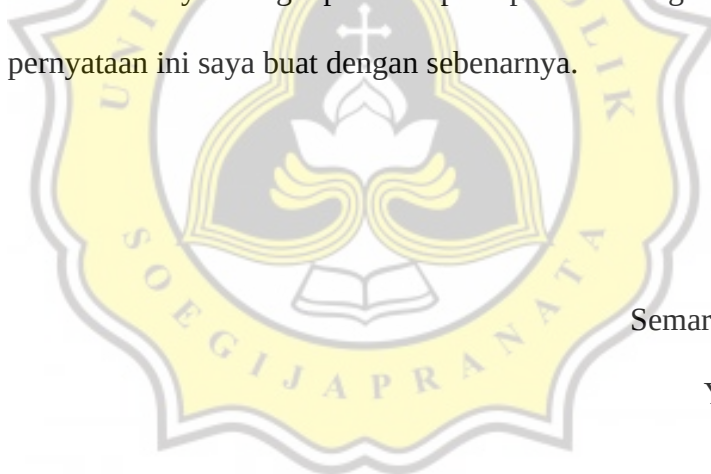
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KATA PENGANTAR

Puji syukur kepada Tuhan Yang Maha Esa, karena penyertaan-Nya penulis akhirnya berhasil menyelesaikan skripsi ini. Dalam proses nya, penulis menerima bantuan dari berbagai pihak. Oleh karena itu, pada kesempatan ini penulis ingin menyampaikan ucapan terima kasih kepada

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Semarang, 17 Juli 2020
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[Ady Ariawan]

ABSTRACT

Vehicle users on Unika Campus are always increasing fast enough. The increase in vehicle users has caused several problems to arise, one of which is the lack of parking space on the Unika campus. This shortcoming makes Unika students and staff spend a lot of time just looking for a place to park their vehicle.

From this problem, this project offers a solution to make a system to count the number of vehicles that pass through the prototype gate of Unika campus. By knowing the number of vehicles coming out of the unit the problem that arises because the number of vehicles can be anticipated. One of them by knowing the number of these vehicles we can determine how much land needs to be added to the parking area. This system is made using Arduino Uno, Ethernet Shield and Ultrasonic Sensors. Ultrasonic sensor will read the height of the object that passes through the exit and identified in accordance with the result of the analysis data and then sent to the database using the Ethernet Shield.

This system has been carried out for more than one and a half hours for cars, and motorbikes. The results obtained are from the system and manual, so after a brief trial of the manually recorded cars there were eight cars while in the system there were nine cars because the system detected one person passing by. There were nineteen motorbikes trials for manually recorded, while eighteen motorbikes in the system passed because there were two motorbikes detected only one motorbike. This research still requires many experiments to determine the accuracy of the system.

Keyword: Arduino UNO, Ethernet Shield, Ultrasonic Sensor

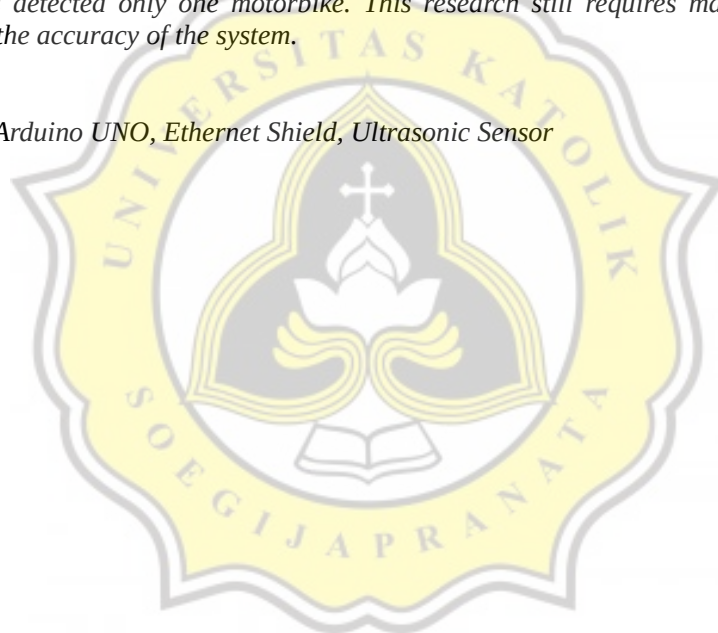
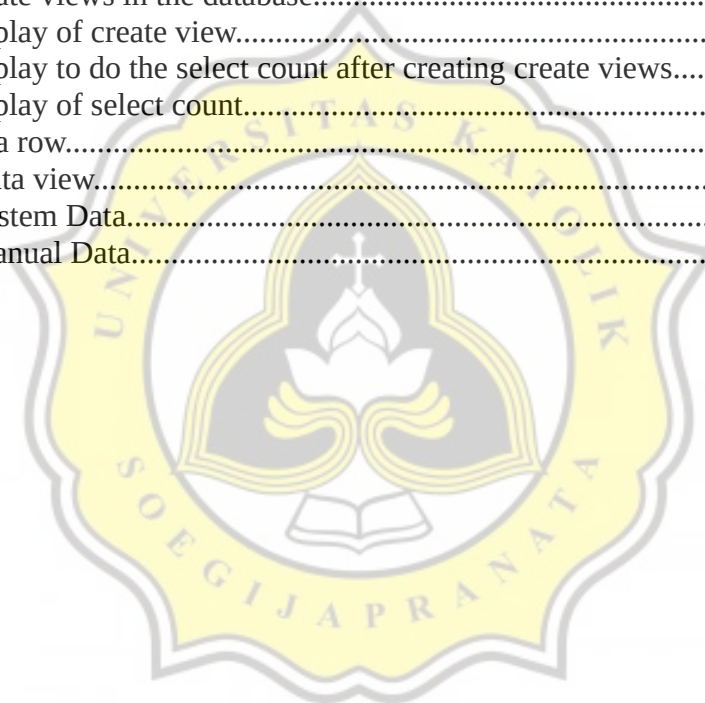


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