ABSTRACT

The problem that will be raised in this thesis research is creating a web parking system based on web app. In the era of the Internet of Things, where automated technology has been widely used, the use of automatic parking systems will be useful for finding parking slots that are still empty in a parking lot. To make this system, we need a sensor, database and server. So that clients can look at the web app to find parking space available. The results of this study are a parking system that can make parking slot users know where the empty and filled parking slots are, then a web server for parking managers that contains data such as a list of empty parking slots and also how much electrical energy used for parking lighting. HC-SR04 sensor used has a good level of accuracy, this is evidenced by the largest percentage of errors at 15% and the lowest 0.07%, the current sensor used is good enough, as evidenced by an average error of 4.19% and with a standard deviation of 2.72%, the voltage sensor used is good enough, as evidenced by an average error of 1.89% and with a standard deviation of 1%, the response of the parking lighting is still considered unsatisfactory because the response has not been below 1 seconds, the results of the data delivery system has been very good with total success reaching 100%.

Keywords: : Internet of Things, Smart parking, Mikrokontroler, XAMPP Web Server, Arduino Mega 2560