

ABSTRACT

Parking is one of the problems that often arise as a result of improving the welfare of the community in line with the increasing ownership of private vehicles. The growing number of vehicles is very rapidly resulting in a supportive transportation infrastructure is needed. But nowadays, the growth between the existing facilities and infrastructures has not been balanced so it can cause problems related to parking land and traffic. The difficulty of finding a parking lot especially in public places in persevere with the conventional parking system is felt less efficient. From the exposure of the authors make the design of automatic parking system prototype, this system will be a solution in finding a parking lot through Android smartphones for people who have high mobility so that it can be done anywhere and anytime during Internet connection. This automatic parking system uses IR Sensor (Infra Red Sensor) with the FC-51 series as a parking slot availability detection tool, on the test result Sensor detection when there is no object around the sensor then the sensor logic is worth 1 or high and when there is an object approaching the sensor then the sensor logic will change from 1 or high to 0 or low. Maximum sensor detection distance, tested by using color variable, where the farthest distance sensor detection in white color with distance of 25 cm while the detecting distance of the closest sensor in black with a distance of 3 cm. data that reads sensors and then sent to the database, then the data is transmitted to the executable and Android applications to display the information obtained.

Keywords: *parking, conventional, automatic, IR Sensor*