

## ABSTRACT

Availability of parking in the general location is one important thing. However, the usage process of parking area in generally is now the drivers still have to find the parking area that will be used themselves. Drivers are not able to know directly which parking area that still available. Such a system like this is not efficient enough for the drivers because it requires more time to get the parking location that can be used. Therefore that, in this final project describes about design of parking allocation development system by using ultrasonic sensor and microcontroller *Atmel ATmega8535*.

The principle of this tool is to display the information about availability of parking spaces by using input from ultrasonic sensor as the detector of parked vehicles. Then the data from the sensor processed using microcontroller *Atmel ATmega8535*. The data from microcontroller then interfaced to computer with VB programming to display the parking area that has been used.

In this way, the parking process is expected to become more organized, simplify in parking process and giving information such as mapping of the site parking area according to the state parking locations well.

Key word: parking allocation, ultrasonic sensor, microcontroller *Atmel ATmega8535*