

## ABSTRACT

*The vehicle security system is necessary now, to reduce crime as an act of theft. But security systems like alarm, double lock still does not guarantee the security of the vehicle. Therefore, we need a security system on a vehicle that is better than ever.*

*In this Final Project, will be designed a security system and vehicle tracking. In making, these systems need a GPS module, GSM devices and Microcontroller. GPS module give information about the position coordinates on the earth. GSM module used to transmit the data via SMS (Short Message Service) while the function of microcontroller is to processing algorithms and data store from GPS and GSM module temporarily. When the security system activated, microcontroller will activate maximum radius of movement vehicles. If the vehicle exceeds the specified maximum, then system will turn off the vehicle engine and then send SMS alerts to the owner that vehicle has moved from the previous position. With this alert, vehicle owner can track the vehicle position and take an action immediately.*

*From the design and realization results of security and vehicle tracking system, it can work well where as the car exceeds a radius of 1 km or in the GPS reading (DDMM.MMM) around 0,55, the system will turn off vehicle engine and then send SMS alerts to the owner that vehicle has moved from the previous position*

*Key words: GPS and GSM module, Microcontroller, SMS*