

## **ABSTRACT**

*Many cases of collision in a motor vehicle accident that occurred at this time. Accidents are usually caused by the vehicle mechanical problems or lack of focus rider in driving a vehicle. At this time, many company developed features on motor vehicles which is able to improve the safety in driving. Therefore we need a system in a vehicle that is useful to avoid collisions in a motor vehicle with an object in front of it.*

*In this final project will be made design and implementation of the brake control systems in electric cars. Where the brake control system will regulate the speed of the electric car, thereby reducing the possibility of collision to an object in front of him. Detection distance between the car in front of the object will be used ultrasonic sensors. The determination of the value of the output will be processed menggunakan fuzzy logic method is processed using the microcontroller. Microcontroller systems are designed using serial communication system.*

*From the results of this system is expected to create a security system for motorists so as to reduce the possibility of collision in a motor vehicle accident. The system will be applied to the electric car.*

*Keywords: Electric car, Brake Control System, Microcontroller, Fuzzy Logic*