

ABSTRACT

Car is one of the most common transportation that is encountered. Many traffic roads have an orderly area of traffic, many traffic lights with the purpose of warning to limit the speed of the car which is one of the safety procedures of vehicles, but in reality the procedure is often not implemented as well, so many of traffic accidents occur due to failure at the speed maximum limit.

To overcome the problems, a system created to measure the speed of the car with wired network communication is made as a warning, so that the speed of the car can be measured and controlled with the aim of preventing motor vehicle accidents. This monitoring system uses a microcontroller with 2 sensors which are transmitters and receivers. The sensor that will be used is a laser sensor on the transmitter and photodiode on the receiver.

The way this monitoring system works is by using a transmitter to transmit data in the form of light waves that can be received by the receiver so the speed can be calculated by comparing the travel time of the car to the receiver. The results of these calculations are data that will be sent by the transmitter to the receiver and the results will be displayed on the laptop. By utilizing this monitoring system it is expected that the police can monitor infringement

of security procedures and reduce the occurrence of motor vehicle accidents due to infringement of these procedures.

Keyword : speed, microcontroller, monitoring system