

## ABSTRACT

Nowadays, the 4-wheel vehicles become a widely used transportation to help people to move from one place to another by a considerable distance. Growth of the 4-wheel vehicle quite rapidly, will result inability road to accommodate the quantity of vehicles. The density of vehicles on the road will lead to more frequent traffic accidents and a long traffic jams. Therefore, it needs a system that can monitor traffic density with fast response.

Vehicular Communication Systems is a system where the vehicles can communicate with each other to provide information about the quantity of vehicles on a road, with information about the quantity of vehicles on a road, roadside unit can monitor the traffic density.

Results of the testing system based on this study show that with the Vehicular Communication System based on microcontroller occur monitoring traffic density such as congested or not congested, so the driver can avoid traffic jams and choose a better route to reach the destination place.

**Keywords:** *vehicular communication system, transportation, monitoring density*