

## ABSTRACT

*At this time, traffic congestion and traffic conditions that are less well become a major problem in big cities in Indonesia. In Indonesia, the economic losses due to congestion reached Rp 27.76 trillion. Total travel time  $\pm 60\%$  was spent in a traffic jam and 40% of total time spent on moving [USAID, 2008]. Because of these things, it is necessary a system and technology that can provide traffic information. Intelligent Transportation System is a system that applies information technology based on Internet of Things which data from devices and software delivered through the internet. The purpose of this research is design sensor system based on internet of things that can detect vehicle for traffic information. From the results of tests, ultrasonic sensor can implemented to miniature and work on the characteristics : maximum distance sensor 2 meter, accuracy rate sensor to detect vehicles in miniature 83.6% - 95% and accuracy rate sensor to detect vehicles in real 86% - 97%.*

*Keywords: Intelligent Transportation System, Internet Of Things, Ultrasonic Sensor.*