

## **ABSTRACT**

*Digital processing is often used to analyze some things that are audio, visual, or digital video. The engineers developed a system that uses a lot of digital processing such as intelligent transport system (ITS) or application monitoring system congestion in the metropolis. Traffic congestion a major problem for road users, it is very necessary for an application that can provide information on the condition of traffic in a road section so that road users can avoid the congestion.*

*In this final project created an android based application that can process audio recorded using a mobile phone. In general, the working principle of this system is to compare samples in the database with new samples using zero crossing rate and average energy. Samples will be classified so it can determine traffic conditions lintas. Proses recording sound with the audio recorder on a mobile phone based on Android. Android is an operating system that provides an open platform that can be used by various propulsion devices.*

*In this final project has been successfully stimulating system that is able to classify the traffic conditions and smoothly. Values obtained accuracy is 73,33% using nearest-neighbor method.*

**Keywords** : *traffic density, zero crossing rate, average energy, android*