



## **ABSTRACT**

*Traffic calming devices are one of traffic safety measures to reduce the speed. It is popular in our society, because it is cheap and easy to install. That is why we often see it in the residential area. Unfortunately, some of road users avoid passing through it, which is mostly performed by the motorcyclist. Due to that reason, the impact of installing this device which is rumble strips is observed. There are two Sites which are representing different type of rumble strips installation. First, the Site that has rumble strips on one lane (Jalan Lembah UGM). Second, is the Site with rumble strips on the both lanes (Jalan Mojo). Traffic counting, percentage of improper behavior, Swedish traffic conflict, and speed measurement are the field survey which are conducted.*

*Traffic counting, percentage of improper behavior, traffic conflict survey are conducted concurrently, and need one day for each site. The data for those surveys was carried out for 3 sessions, which each session needs one hour observation. The following data that was carried out is considered enough since the main issue on this thesis is observing how much risky the both sites. While, the speed profile survey is mainly took 100 motorcyclist speed data to analyze the percentage of speed violation. Furthermore, the data has been analyzed using Microsoft Excel 2007 and CD Base software.*

*The survey result shows that rumble strips installation may cause another problem. Road users tend to avoid it in the first Site. Even on the second Site, we still saw motorcyclist (mostly) who perform an improper behavior. That phenomenon in traffic safety is called behavioral adaptation. The improper installation and maintenance are the probable causes. In brief, a better planning and research are needed to decrease the impact of behavioral adaptation.*

**Keywords:** *behavioral adaptation, improper behavior, Swedish traffic conflict technique, traffic calming devices, traffic safety.*