## ABSTRACT

The behavior of vehicle drivers who often drive at high speed on the road is very dangerous to yourself and others, because no matter how swiftly his driver crash threat remains very large. It requires a system that records the speed of any moving vehicle and record the vehicle license plate number, so when there is an oncoming vehicle exceeding the speed limit can be prosecuted in accordance with traffic regulations.

To obtain velocity information by using video as data formats and optical flow as a method to see the movement of the vehicle, license plate feature extraction is obtained using MDF (Modified Direction Feature, and classified using the K-Nearest Neighbor (KNN).

The result of this system has an average accuracy rate of speed detection of 20 kmph for 94.40%, 30 kmph for 95.24% and 40 kmph for 93.03%, vehicle license plate detection accuracy rate at 20 km / h for 68,56%, 30 km / h by 62,85%, and 40 kmph for 60%. This study complements research on measuring the speed of vehicles that have been there before.

Keywords: Speed, Vehicle Plate, Optical Flow, Modified Direction Feature, K-Nearest