

Abstract

Land transportations and traffic flow problems have been getting worse in the recent years, mainly on traffic jam and accidents. Model and simulation could help finding the solution to the problems cheaper. One of the aspects of traffic flow is lane changing. There are two models that can represent lane changing; standard Lane Changes and MOBIL (Minimizing Overall Braking Induced by Lane Changes). Both of the models took safety and incentive ($\Delta\alpha$) as their criteria while using acceleration as the reference. On this research, experiment was taken with three cars on the street of Bogor. The result then taken to be processed and calculated into both of the models. After that, it can be compared and analyzed for the effectiveness and superiority. From the research that has been done, standard Lane Changes model has advantages from the MOBIL model. MOBIL has smaller $\Delta\alpha$ than the standard Lane Changes because it took three cars' accelerations into calculation.

Keywords: Acceleration, Lane Changes, MOBIL model, Traffic Flow