

## **Abstract**

Congestion can occur from various factors. One of them is the imbalance of road growth with the growth of vehicles. In this study the traffic flow simulation uses macroscopic which only calculates vehicle density. The phenomenon that changes is the merging of paths or merge lane which is one of the causes of congestion, in this study using traffic flow observation data on Jl. Pioneer of Bandung Independence. In this phenomenon, it is applied Finite Difference Method (FDM) with Flux Corrected Transport using Zalesak Corrector to be done using numeric. Then each path will be represented as a flux. The Zalesak Corrector simulation results are then compared with other numerical methods, the simulation using Zalesak Corrector is error = 0.995, using the Upwind method error = 1.045, using the Lax-Wendroff method error = 1.071912 when  $\Delta x = 0.05$ . From the results of the error, the Zalesak Corrector has a smaller error than against the wind and Lax-Wendroff. It is hoped that the Zalesak Corrector can be better agreed to in the discussion of the phenomenon merge lane which is located at Jl. Pioneer of Bandung Independence.

**Keywords: Traffic flow, merge lanes, Zalesak Corrector, density**