

ABSTRACT

Along with the population growth in Indonesia, numbers of transportation is also increasing. And the effect is a congestion of the big cities still be in general problem at this time. One of the congestion factors is on the traffic sign arrangement at intersection. The system used in the traffic sign for the current intersection is still based on Fixed Time and almost in all road condition are equalized. And the system can't handle when there's a change in a condition.

So to overcome the problem, this research built a simulation to testing a change of system traffic light arrangement to be a dynamic system. The system using Highest Ratio Response Next scheduling algorithm. This simulation runs well for changing sequence of traffic light. Average of waiting time using HRRN algorithm is smaller than using fixed time in morning and noon dataset, and it is bigger in afternoon dataset. The difference is 26.316 seconds for morning dataset, 70.688 seconds for noon dataset, and 2.72 seconds for afternoon dataset.

Keyword: Congestion, Traffic Sign System, Scheduling Algorithm HRRN