

Analisa Gap Acceptance pada Persimpangan Kaki 3 Tidak Terkontrol = Gap Acceptance Analysis on Uncontrolled Three-Legged Intersection

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Abstrak

Gap acceptance adalah faktor penting dalam kapasitas sebuah persimpangan. Untuk analisa gap acceptance secara mendalam, teori gap kritis harus dijelaskan. Gap kritis sebagai batasan penentuan keputusan dimana kendaraan dari jalan minor-stream dapat bermanuver menyatu ke jalan major-stream. Untuk menganalisa gap kritis, terdapat banyak faktor yang dipertimbangkan seperti gap, lag, headwat, dan lain-lain. Dalam skripsi ini, penulis akan menjelaskan analisa gap acceptance pada persimpangan kaki tiga tidak terkontrol. Studi kasus pada observasi menggunakan video yang direkam pada persimpangan yang selanjutnya akan diekstrak menjadi variabel untuk perhitungan dan analisa data. Pada skripsi ini, penulis menggunakan beberapa metode seperti Greenshields, Harder, dan Wu. Lalu, akan dijabarkan perbandingan dari hasil ketiga metode tersebut. Pada akhirnya, analisa hasil dan konklusi observasi akan menunjukkan keterkaitan beberapa aspek seperti performa, keamanan, atau bahkan biaya.

Gap acceptance is an important factor that affect the capacity of an intersection. To comprehensively analyze gap acceptance, the theory of critical gap must be explained. critical gap as a judgment threshold to whether a minor-stream vehicle able to maneuver to the major-stream. In order to analyze critical gap, there are many factors that needs to be considered such as gap, lag, headway, etc. In this research thesis, writer will discuss about gap acceptance analysis on a three-legged intersection. The intersection that will be discussed consists of two lanes major-stream road and one lane minor-stream road. Objectives for this research thesis is to determine the capacity of an uncontrolled intersection. A case study for this research thesis will be using a recorded video of the intersection to be extracted as variables for further data calculation and analysis. Also, this research thesis uses various methods such as Greenshields method, Harder method, and Wu method. Then, the results of these analysis will be compared and a final conclusion will be formulated. Lastly, analysis results and final conclusion will reflect to other various aspects such as performance, safety, or even cost.