



INTISARI

MUHAMMAD ALFIAN PUTRA PERDANA, 2022, *Analisis Kinerja dan Strategi Penanganan Simpang Bersinyal Deggung Kabupaten Sleman* (dibimbing oleh Dr. Eng. Iman Haryanto, ST., MT.)

Simpang Deggung merupakan salah satu simpang bersinyal yang ada di Kab. Sleman, D.I.Yogyakarta yang memiliki lalu lintas yang padat dan sering terjadi kemacetan. Nilai tingkat pelayanan yang buruk pada Simpang Deggung sangat mengganggu aksesibilitas transportasi. Nilai tingkat pelayanan yang buruk tersebut diperlukan evaluasi dan analisis Simpang Deggung untuk melakukan strategi penanganan kinerja Simpang Deggung sehingga nilai tingkat pelayanan dapat ditingkatkan.

Proses analisis kinerja simpang dilakukan dengan tahapan analisis data lalu lintas dan data kondisi lingkungan simpang untuk mendapatkan volume lalu lintas dan kapasitas serta digunakan untuk menentukan nilai tingkat kinerja Simpang Deggung yakni derajat kejenuhan dan tundaan simpang. Nilai kinerja Simpang Deggung selanjutnya digunakan untuk menentukan strategi penanganan untuk meningkatkan nilai tingkat pelayanan Simpang Deggung.

Hasil analisis Simpang Deggung disimpulkan bahwa kondisi kinerja eksisting Simpang Deggung sangat buruk dan tidak memenuhi persyaratan sehingga diperlukan strategi penanganan. Strategi penanganan akhir didapatkan nilai kapasitas simpang jam puncak pagi, siang, dan sore sebesar 779,75 smp/jam; 788,25 smp/jam; dan 793,75 smp/jam, nilai derajat kejenuhan jam puncak pagi, siang, dan sore sebesar 0,54; 0,93; dan 0,98, dan nilai tundaan jam puncak pagi, siang, dan sore sebesar 74,14 detik; 155,23 detik; dan 149,05 detik.

Kata kunci : Simpang bersinyal, Kapasitas simpang, Derajat kejenuhan, Tundaan, Tingkat pelayanan simpang.



ABSTRACT

MUHAMMAD ALFIAN PUTRA PERDANA, 2022, *Performance Analysis and Strategy for Handling Performance of the Deggung Intersection District Sleman* (guided by Dr. Eng. Iman Haryanto, ST, MT.)

Deggung intersection is one of the signalized intersections in district Sleman, D.I.Yogyakarta which has heavy traffic and frequent congestion. The value of poor service levels at the Deggung intersection greatly disrupts transportation accessibility. The value of poor service level is needed evaluation and analysis of Deggung intersection to carry out a strategy for handling the performance of the Deggung intersection so that the value of service level can be improved.

The intersection performance analysis process is carried out with the stages of analysis of traffic data and environmental conditions of intersections to obtain traffic volume and capacity and used to determine the performance level of the Deggung Intersection namely the degree of saturation and delay intersection. The performance value of Deggung intersection is then used to determine the handling strategy to increase the value of the Deggung intersection service level.

The results of the Deggung intersection analysis concluded that the existing performance conditions of Deggung intersection were very bad and did not meet the requirements so that a handling strategy was needed. The final handling strategy is obtained by the value of capacity intersection of the peak hours of morning, afternoon, and evening is 779,75 pcu / hour; 788,25 pcu / hour; and 793,75 pcu / hour, the value of the degree of saturation of the peak hours of morning, afternoon, and evening is 0.54; 0.93; and 0.98, and the value of peak hours of morning, afternoon and evening hours is 74,14 seconds; 155,23 seconds; and 149,05 seconds.

Keywords: Signalized intersection, intersection capacity, degree of saturation, delay, level of intersection service.