ABSTRAK

Muhammad Abiyyu (NIM.5183250014) "ANALISIS KINERJA SIMPANG TAK BERSINYAL EMPAT LENGAN MENGGUNAKAN METODE PKJI 2023. Sudi Kasus: Persimpangan Jl. Hj. Ani Idrus – Jl. Palangkaraya – Jl. Mahkamah".

Evaluasi Simpang dilakukan untuk mengatasi salah satu faktor kemacetan yaitu kapasitas simpang. Penelitian ini dilakukan pada simpang lengan empat tak bersinyal Jl. Hj. Ani Idrus – Jl. Palangkaraya – Jl. Mahkamah. Evaluasi simpang menggunakan Pedoman Kapasitas Jalan Indonesia 2023. Volume lalu lintas yang didapatkan berdasarkan hasil survei adalah sebesar 3.394 smp/jam. kapasitas simpang sebesar 6.689 smp/jam. Hasil analisis menunjukkan bahwa simpang masih beroperasi dalam batas kapasitasnya, yang ditunjukkan oleh nilai DJ < 0,60. Nilai DJ sebesar 0,51 menandakan kondisi lalu lintas setengah mendekati jenuh, masih tergolong stabil dan terkendali. Tundaan rata-rata sebesar 10,41 detik/smp mengindikasikan kinerja lalu lintas sedang, di mana kendaraan mengalami sedikit hambatan namun tetap bergerak. Sementara itu, nilai peluang antrian yang berada pada kisaran menengah (14,8%–25,2%) mengindikasikan bahwa potensi terbentuknya antrian cukup jarang terjadi, namun belum menyebabkan kondisi lalu lintas macet secara signifikan.

Kata Kunci : Simpang tak bersinyal, PKJI 2023, Evaluasi simpang

ABSTRACT

Muhammad Abiyyu (NIM.5183250014) ***"PERFORMANCE ANALYSIS OF FOUR-ARM UNSIGNALIZED INTERSECTION USING THE 2023 PKJI METHOD. Case Study: Jl. Hj. Ani Idrus – Jl. Palangkaraya – Jl. Mahkamah Intersection".***

Intersection evaluation was conducted to address one of the congestion factors, namely intersection capacity. This study was conducted at the four-arm unsignalized intersection of Jl. Hj. Ani Idrus – Jl. Palangkaraya – Jl. Mahkamah. The intersection evaluation used the 2023 Indonesian Road Capacity Guidelines. The traffic volume obtained based on the survey results was 3,394 pcu/hour. The intersection capacity was 6.689pcu/hour. The analysis results showed that the intersection was still operating within its capacity limits, as indicated by a DJ value <0,60. A DJ value of 0.51 indicates that traffic conditions were halfway approaching saturation, were still relatively stable and under control. The average delay of 10.41 seconds/pcu, indicating a bit of moderate traffic performance, where vehicles experience minimal obstruction but remain mobile. Meanwhile, the medium-range queue probability (14.8%–25.2%) indicates that queues are quite common but have not yet caused significant traffic congestion.

Keywords*: Unsignalized intersection, PKJI 2023, Intersection evaluation*