

## **ABSTRAK**

### **EVALUASI SIMPANG TAK BERSINYAL DAN PERENCANAAN APILL**

**Oleh**

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Simpang Jalan Ir. Sutami merupakan simpang yang menghubungkan jalan Ir. Sutami dan Jalan P. Tirtayasa pada simpang tersebut berpotensi terjadi kemacetan lalu lintas dan kecelakaan. Hal ini disebabkan ruas jalan mayor merupakan jalur menuju akses jalan TOL, pabrik, terdapat rumah makan dan tempat angkutan kendaraan penumpang .

Penelitian ini dilakukan di simpang tak bersinyal tiga lengan, survey dilakukan selama 3 hari Senin, Kamis dan Sabtu pada jam puncak pagi 07.00-08.00, siang 12.00-13.00 dan sore 16.00-17.00. Penggunaan traffic counter, kamera, roll meter sebagai alat bantu untuk menghitung data volume lalu lintas.

Hasil analisis kinerja simpang tak bersinyal Jalan Ir. Sutami pada kondisi eksisting menunjukkan hasil yang kurang baik yang berpedoman Pedoman Kapasitas Jalan Indonesia, 2014. Kapasitas yang didapatkan Senin 23 Mei 2022 2418,8 skr/jam DJ 0,7979 Tundaan Simping 11,484 det/skr peluang antrian 52% nilai atas Kamis 19 Mei 2022 2319.9 DJ 0.7682 Tundaan Simping 10,897det/skr. Peluang antrian 48 % nilai atas Sabtu 2504.7 skr/jam, DJ 0,7519 Tundaan Simping 11,228 det/skr.peluang antrian 46% nilai atas. Untuk perencanaan APILL direncanakan 3 fase dan waktu hijau efektif 134 detik dimana fase 1 Jl. P. Tirtayasa (38 detik) fase 2 Jl. Ir. Sutami Lematang (52 detik), dan fase 3 Jl. Ir. Sutami Panjang (48 detik)

**Kata Kunci:** Persimpangan, Lalu lintas, kemacetan, APILL

## ABSTRACT

### **NON-SIGNAL INTERSECTION EVALUATION AND APILL PLANNING**

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*Intersection Ir. Sutami is an intersection that connects Jalan Ir. Sutami and Jalan P. Tirtayasa at the intersection have the potential to cause traffic jams and accidents. This is because the major roads are the paths leading to toll road access, factories, there are restaurants and places for transporting passenger vehicles.*

*This research was conducted at the three-arm unsignalized intersection, the survey was conducted for 3 days Monday, Thursday and Saturday at peak hours in the morning 07:00-08:00, afternoon 12:00-13:00 and afternoon 16:00-17.00. Use of traffic counters, cameras as tools to calculate traffic volume data. Data on the width of the road and the shoulder of the road are obtained in the field by measuring directly using a roll meter on each approach.*

*The results of the analysis of the performance of the unsignalized intersection Jalan Ir. Sutami in the existing condition shows unfavorable results based on the Indonesian Road Capacity Guidelines, 2014. The capacity obtained Monday 23 May 2022 2418.8 cur/hour DJ 0.7979 Intersection delay 11,484 sec/cur queuing opportunity 52% value on Thursday 19 May 2022 2319.9 DJ 0.7682 Intersection Delay 10,897sec/cur. Chance of queue 48% top score Saturday 2504.7 cur/hour, DJ 0.7519 Intersection delay 11.228 sec/cur. queue chance 46% top score. For APPIL planning, 3 phases are planned and an effective green time of 134 seconds where phase 1 Jl. P. Tirtayasa (38 seconds) phase 2 Jl. Ir. Sutami Lematang (52 seconds), and phase 3 Jl. Ir. Long Sutami (48 seconds)*

**Keywords:** *Intersection, Traffic, congestion, APILL*