

## INTISARI

Jalan Veteran Perang Kemerdekaan di Kabupaten Sukoharjo merupakan jalur transportasi vital yang menunjang kegiatan distribusi barang dan mobilitas kendaraan industri. Peningkatan volume lalu lintas harian, terutama kendaraan berat, menyebabkan penurunan kondisi perkerasan jalan. Penelitian ini bertujuan untuk mengevaluasi kondisi fungsional perkerasan pada STA 0+000 hingga STA 4+200 menggunakan empat metode evaluasi, yaitu Pavement Condition Index (PCI), International Roughness Index (IRI), Present Serviceability Index (PSI), dan Pavement Surface Evaluation and Rating (PASER). Hasil evaluasi menunjukkan bahwa Section A (jalan belum mendapat penanganan overlay) memiliki nilai PCI sebesar 40,77 (Poor), IRI sebesar 4,32 m/km (Sedang), PSI sebesar 1,66 (Buruk), dan PASER sebesar 2 (Sangat Buruk). Sementara itu, Section B (jalan telah dilakukan overlay) menunjukkan nilai PCI sebesar 89,71 (Sangat Baik), IRI sebesar 3,40 m/km (Baik), PSI sebesar 2,02 (Sedang), dan PASER sebesar 8 (Sangat Baik).

Dari keempat metode yang digunakan, metode PCI dinilai paling komprehensif dalam menggambarkan kondisi kerusakan permukaan karena mempertimbangkan sepuluh jenis kerusakan secara rinci. Berdasarkan hasil analisis, direkomendasikan penanganan berupa rehabilitasi sebagian hingga rekonstruksi penuh pada Section A, serta pemeliharaan rutin dan preventif pada Section B. Penelitian ini diharapkan dapat menjadi acuan bagi pemerintah daerah dalam menentukan strategi prioritas pemeliharaan dan perbaikan jalan, khususnya di kawasan industri.

**Kata kunci: PCI, IRI, PSI, PASER, evaluasi perkerasan, pemeliharaan jalan, Sukoharjo.**

## ABSTRACT

Jalan Veteran Perang Kemerdekaan in Sukoharjo Regency serves as a critical transportation route supporting industrial and goods distribution activities. The increasing volume of daily traffic, particularly from heavy vehicles, has contributed to pavement degradation. This study aims to evaluate the functional condition of the pavement along STA 0+000 to STA 4+200 using four methods: Pavement Condition Index (PCI), International Roughness Index (IRI), Present Serviceability Index (PSI), and Pavement Surface Evaluation and Rating (PASER). Based on field surveys and data analysis, Section A, which has not undergone recent maintenance, recorded a PCI value of 40.77 (Poor), an IRI value of 4.32 m/km (Fair), a PSI value of 1.66 (Poor), and a PASER rating of 2 (Very Poor). In contrast, Section B, which had been overlaid, yielded a PCI of 89.71 (Very Good), an IRI of 3.40 m/km (Good), a PSI of 2.02 (Fair), and a PASER rating of 8 (Very Good).

The study concluded that the PCI method offers the most comprehensive representation of surface distress due to its detailed classification of ten types of pavement defects. Recommendations for Section A include partial rehabilitation and full reconstruction in highly deteriorated segments, while Section B requires only preventive and routine maintenance. The results of this study are expected to serve as a reference for local governments in determining priority road repair strategies, especially in industrial areas.

**Keywords: PCI, IRI, PSI, PASER, pavement evaluation, Sukoharjo, road maintenance.**