PENGGUNAAN METODE *SURFACE DISTRESS INDEX* (SDI) DAN *INTERNATIONAL ROUGHNESS INDEX* (IRI) UNTUK PENILAIAN KONDISI JALAN (Studi Kasus : Ruas Jalan Parakancanggah-Kenteng Kabupaten Banjarnegara)

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ABSTRAK

Ruas jalan Parakancanggah-Kenteng merupakan jalur utama yang menghubungkan beberapa daerah pedesaan di sekitar . Keberadaan ruas jalan Parakancanggah-Kenteng sangat membantu pergerakan sectoral di wilayah sekitar di Kabupaten Banjarnegara. Penelitian bertujuan untuk mengevaluasi kondisi perkerasan ruas jalan secara fungsional berdasarkan metode *Surface Distress Index* (SDI) dan *International Roughness Index* (IRI) menggunakan alat bantu aplikasi *Roadroid*. Evaluasi dilakukan untuk mengetahui kondisi permukaan perkerasan beserta tindakan perbaikan yang harus dilakukan.
Penilaian kondisi perkerasan jalan secara visual diperoleh dengan melakukan survey lapangan dan data IRI didapat dari bantuan aplikasi *Roadroid Pro3* . Aplikasi *Roadroid* adalah salah satu aplikasi pada ponsel pintar (*smart phone*) Android yang dikembangkan oleh perusahaan di Swedia yang mana fungsinya adalah untuk mengukur ketidakrataan jalan *(Road Roughness)*.Perhitungan data SDI dilakukan sesuai dengan yang sudah diatur dalam Bina Marga (2011) dan perhitungan data IRI dilakukan dengan memasukkan nilai hasil aplikasi *Roadroid Pro3* kedalam *Ms.Excel* yang nantinya diolah menjadi data final. Hasil penelitian ini terdapat perbedaan kondisi ruas jalan Parakancanggah-Kenteng pada kedua metode , dengan metode SDI diketahui bahwa 50% dengan kondisi baik, 50% dengan kondisi sedang,0% kondisi rusak ringan dan 0% dengan kondisi rusak berat. Sedangkan untuk hasil perhitungan metode IRI di ketahui bahwa 37,5% kondisi baik, 37,5% kondisi sedang, 25% kondisi rusak ringan dan 0% kondisi rusak berat. Dengan adany penelitian penilaian kondisi ruas jalan yang menggunakan metode SDI dan IRI dapat memberikan gambaran atau deskripsi tentang kondisi jalan di Kabupaten Banjarrnegara, yang dapat digunakan sebagai data base untuk perencanaan dan pelaksanaan rehabilitas dan pemeliharaan jalan.

Kata kunci : Perkerasan Jalan,SDI,IRI,Penanganan

USING SURFACE DISTRESS INDEX (SDI) AND INTERNATIONAL ROUGHNESS INDEX (IRI) METHODS FOR ROAD CONDITION ASSESSMENT (Case Study: Parakancanggah-Kenteng Road Section, Banjarnegara Regency)

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ABSTRACT

The Parakancanggah-Kenteng road section is the main route that connects several rural areas around it. The existence of the Parakancanggga-Kenteng road section is very helpful for sectoral movements in the surrounding areas in Banjarnegara Regency. The research aims to evaluate the road pavement condition functionally based on the Surface Distress Index (SDI) and International Roughness Index (IRI) methods using the Roadroid application tool. Evaluation is carried out to determine the condition of the pavement surface and corrective actions to be taken.
Visual assessment of road pavement conditions was obtained by conducting field surveys and IRI data was obtained with the help of the Roadroid Pro3 application. The Roadroid application is an application on an Android smartphone developed by a company in Sweden whose function is to measure road roughness. Calculation of SDI data is carried out in accordance with what has been regulated in Highways (2011) and calculations IRI data is done by entering the results of the Roadroid Pro3 application into Ms.Excel which will be processed into final data. The results of this study showed that there were differences in the condition of the Parakancanggah-Kenteng road section in both methods, with the SDI method it was found that 50% were in good condition, 50% were in moderate condition, 0% were in slightly damaged condition and 0% were in severely damaged condition. As for the calculation results of the IRI method, it is known that 37.5% is in good condition, 37.5% is in moderate condition, 25% is in slightly damaged condition and 0% is in heavily damaged condition. With research on assessing the condition of roads using the SDI and IRI methods, it can provide an overview or description of road conditions in Banjarnegara Regency, which can be used as a data base for planning and implementing road rehabilitation and maintenance.

Keywords: Pavement, SDI, IRI, Handling