

**PENILAIAN KONDISI PERKERASAN
DENGAN METODE PAVEMENT CONDITION INDEX (PCI)
(STUDI KASUS RUAS JALAN CEPU-JEPON KABUPATEN BLORA)**

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INTISARI

Ruas jalan Cepu-Blora merupakan jalur jalan yang makin meningkat penggunaannya. Peningkatan frekuensi lalu-lintas harian, ditambah oleh kondisi musim hujan, menyebabkan potensi timbulnya kerusakan pada perkerasan jalan tak bisa dihindarkan. Tujuan penelitian ini adalah menentukan tingkat kerusakan ruas jalan yang dijadikan sample penelitian, membuat suatu urutan prioritas penanganan perbaikan jalan sesuai ranking kondisi kerusakan yang telah terjadi serta, melakukan evaluasi penyebab kerusakan dan langkah perbaikannya.

Penelitian menggunakan metode Pavement Condition Index (PCI) dengan cara iterasi sebagaimana yang dipaparkan dalam buku *Pavement Management for Airports, Roads, and Parking Lots* (M.Y Shahin 1994) pada jalur jalan sepanjang 27 km, dari Cepu ke Jepon. Jalur sepanjang itu dibagi menjadi 3 ruas masing-masing 9 km. Jalan dibagi menjadi unit-unit sample dengan panjang 50 meter dan lebar 6 meter. Dari perhitungan akan didapatkan nilai rating PCI setiap ruas jalan maupun rata-rata dari seluruh panjang jalur. Dari penilaian rating ini direkomendasikan urutan prioritas penanganan kerusakan serta langkah perbaikannya. Pengamatan dilakukan kali yaitu pada bulan April 2008 dan bulan Januari 2009.

Hasil penelitian menunjukkan berbagai jenis kerusakan yang terjadi yaitu, potholes, alligator cracking, block cracking, corrugation, depression, edge cracking, land and shoulder drop, longitudinal and transversal cracking, patching and utility cracking, railroad cracking, serta weathering/raveling. Dalam 2 kali pengamatan terjadi perubahan nilai rating disebabkan karena adanya perbaikan jalur jalan pada bulan Juni sampai Agustus 2008 maupun kerusakan karena cuaca dan beban lalu-lintas. Prioritas penanganan kerusakan disarankan melihat nilai rating terendah dari ruas jalan yang ada, serta jenis kerusakan yang paling berperan mempengaruhi nilai rating.

Kata – kata kunci : *PCI, rating, cara iterasi*

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**ASSESSMENT ON ROAD SOLIDITY CONDITION
BY USING THE PAVEMENT CONDITION INDEX (PCI) METHODE
(A CASE STUDY ON CEPU-JEPON ROADS, BLORA REGENCY)**

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ABSTRACT

Cepu-Blora Roads are increasingly used road paths. The increased frequency of daily traffic plus the conditions of rainy season caused potentials for road solidity damages unavoidable. Therefore, purpose of this study is to determine the level of damaged road that is made as a sample of the study, to make the order of priority improvement for damaged roads as the ranking of damaged conditions, and to do evaluation on the underlying causes of the damaged roads and the measures of improvement.

The study used the Pavement Condition Index (PCI) method with iteration as explained in the Pavement Management for Airports, Roads, and Parking Lots (Shahin, 1994) on road paths of 27 km in length from Cepu to Jepon. The road paths were divided into three paths with each of 9 km in length. The roads were divided into the sample units of 50 m in length and 6 m in wide. From the calculation, the PCI value of each path and the average of all the path lengths will be obtained. From the rating assessment, the order of the priority improvement of damaged roads and the measures of improvement can be recommended.

Result of the study indicates that there were various kinds of damages, i.e. potholes, alligator cracking, block cracking, corrugation, depression, edge cracking, land and shoulder drop, longitudinal and transversal cracking, patching and utility cracking railroad, and weathering/raveling. In two times of observation it can be known that the change of rating values occurred due to the improvement of road paths on June through August 2008 and damages due to climate and traffic load. It can be recommended that priority in improvement of the damaged roads is made based on the lowest rating value of the existing road paths and the kinds of damages mostly affecting the rating value.

Keywords: *PCI, Rating, Iteration*