

**ANALISIS PRIORITAS PENANGANAN JEMBATAN KABUPATEN
BEKASI MENGGUNAKAN BMS KOMBINASI DENGAN METODE
*ANALYTICAL HIERARCHY PROCESS***

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ABSTRAK

Penelitian ini bertujuan menentukan prioritas penanganan jembatan di Kabupaten Bekasi menggunakan metode Analytical Hierarchy Process (AHP). Metode ini dipilih karena kemampuannya dalam pengambilan keputusan sistematis dan terstruktur melalui perbandingan berpasangan antar kriteria dan alternatif. Data diperoleh dari kuesioner ahli dan data sekunder pendukung. Proses penelitian meliputi penyusunan hierarki tujuan, kriteria, dan alternatif, pembuatan matriks perbandingan, serta perhitungan bobot prioritas dan analisis konsistensi penilaian. Hasil analisis menunjukkan urutan prioritas berdasarkan bobot eigenvektor dari kriteria dan alternatif, serta nilai indeks konsistensi (CR) yang harus di bawah 10% agar penilaian valid. Hasil ini membantu pemerintah daerah dalam mengalokasikan sumber daya secara efektif untuk perawatan dan perbaikan jembatan yang paling mendesak. Penelitian ini berkontribusi pada pengambilan keputusan strategis terkait pengelolaan infrastruktur jembatan di Kabupaten Bekasi dan dapat menjadi referensi untuk pengelolaan jembatan di daerah lain dengan karakteristik serupa.

Kata Kunci : Prioritas Penanganan Jembatan, Kabupaten Bekasi, Analytical Hierarchy Process (AHP), Perbandingan Berpasangan, Bobot Prioritas, Konsistensi Penilaian, Infrastruktur, Pemeliharaan Jembatan, Pengambilan Keputusan, Eigenvektor, *Consistency Ratio*.

ANALYSIS OF PRIORITY HANDLING OF BEKASI REGENCY USING BMS COMBINATION WITH ANALYTICAL HIERARCHY PROCESS METHOD

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ABSTRACT

This study aims to determine the prioritization of bridge maintenance in Bekasi Regency using the Analytical Hierarchy Process (AHP) method. The choice of AHP is due to its capability to facilitate systematic and structured decision-making through pairwise comparisons among criteria and alternatives. Data were obtained from expert questionnaires and supporting secondary sources. The research process involved constructing the hierarchy of objectives, criteria, and alternatives, developing comparison matrices, and calculating priority weights along with consistency analysis. The results reveal the priority order based on eigenvector weights of criteria and alternatives, with the consistency ratio (CR) being below 10% to ensure valid judgments. These findings assist local government in effectively allocating resources for the maintenance and repair of the most urgent bridges. This research contributes to strategic decision-making in infrastructure management, specifically for bridges in Bekasi Regency, and can serve as a reference for bridge management in other regions with similar characteristics.

Keyword : Bridge Maintenance Priority, Bekasi Regency, Analytical Hierarchy Process (AHP), Pairwise Comparison, Priority Weight, Consistency Assessment, Infrastructure, Bridge Upkeep, Decision Making, Eigenvector, Consistency Ratio.