

Abstrak

Kondisi struktur bangunan gedung dapat mengalami kerusakan akibat berbagai penyebab dengan berjalannya waktu, sehingga dibutuhkan penilaian terhadap kondisi bangunan. Untuk itu penelitian ini bertujuan menyajikan skala prioritas kriteria kerusakan struktur bangunan gedung. Digunakan metode pengambilan keputusan multi kriteria Fuzzy Analytic Hierarchy Process (FAHP) dalam penelitian ini. Pendekatan logika fuzzy pada metode Analytic Hierarchy Process diharapkan dapat memberikan penilaian yang lebih objektif. Kriteria kerusakan utama dalam penelitian ini meliputi kondisi sejarah bangunan, keadaan lingkungan, kapasitas struktural, dan durabilitas. Berdasarkan hasil analisis data dengan metode FAHP, didapatkan bahwa kapasitas struktural merupakan kriteria yang paling berpengaruh dalam menyebabkan kerusakan terhadap struktur bangunan gedung dengan bobot sebesar 39%, diikuti durabilitas sebesar 37%, keadaan lingkungan sebesar 14%, dan kondisi sejarah bangunan 0%.

Kata Kunci: *bangunan gedung, kriteria kerusakan, skala prioritas, Analytic Hierarchy Process, logika fuzzy*

Abstract

The condition of the building structure can be damaged as time passes, so it needs an assessment for the condition of the building. Therefore this study presents the priority scale of damage criteria for building structure. The multi-criteria decision-making method, Fuzzy Analytic Hierarchy Process (FAHP) is used in this study. The fuzzy logic approach on Analytic Hierarchy Process method is expected to provide more objective judgment. The main damage criteria in this study include the building history states, environmental conditions, structural capacity, and durability. Based on the results from data analysis using the FAHP method, showed structural capacity is the most affecting criteria that could be causing damage to building structures with a weight of 39%, followed by the durability of 37%, environmental conditions of 14%, and building history states of 0%.

Keywords: *building, damage criteria, priority scale, Analytic Hierarchy Process, fuzzy logic*