

ABSTRAK

Paraswati. 2025. Penerapan Metode *Analytical Hierarchy Process* (AHP) Dalam Pembangunan Sistem Pendukung Keputusan Penerimaan Siswa Program Kelas Unggulan (MAN 2 MAGETAN). Skripsi. Program Studi Teknik Informatika , Fakultas Teknik, Universitas PGRI Madiun. Pembimbing (I) Sri Anardani, S.Kom., M.T. Pembimbing (II) Pratiwi Susanti, S.Kom., M.MT.

Proses seleksi siswa kelas unggulan di MAN 2 Magetan mencakup berbagai aspek, seperti nilai akademik, prestasi non-akademik, tes psikotes, IQ, dan wawancara. Namun, pemberian rekomendasi masih dilakukan secara manual, yang dapat menimbulkan ketidaktepatan dalam penempatan siswa. Penelitian ini bertujuan merancang sistem pendukung keputusan berbasis metode *Analytical Hierarchy Process* (AHP) untuk membantu tim akademik dan BP/BK dalam menentukan rekomendasi secara lebih akurat dan efisien. AHP digunakan untuk memberikan bobot hierarkis pada tiap kriteria seleksi. Sistem dikembangkan menggunakan model Waterfall dan dibangun dengan teknologi web (HTML, CSS, JavaScript, PHP) serta MySQL sebagai basis data. Fitur utama sistem mencakup input kriteria, pembobotan, input data siswa, penilaian alternatif, dan perhitungan hasil seleksi. Sistem telah diuji menggunakan metode black box dan diimplementasikan secara daring melalui layanan Cloudflare. Hasil pengujian menunjukkan fungsionalitas sistem berjalan optimal dengan akurasi 100%, sehingga dapat mendukung proses seleksi siswa secara efektif dan tepat sasaran.

Kata Kunci : Sistem Pendukung Keputusan, *Analytical Hierarchy Process* (AHP), Seleksi Siswa, Kelas Unggulan

ABSTRACT

Paraswati. 2025. *The Application of the Analytical Hierarchy Process (AHP) Method in the Development of a Decision Support System for the Admission of Outstanding Class Students (MAN 2 Magetan)*. Thesis. Informatics Engineering, Faculty of Engineering, Universitas PGRI Madiun. Advisor (I): Sri Anardani, S.Kom., M.T. Co-Advisor (II): Pratiwi Susanti, S.Kom., M.MT.

The selection process for outstanding class students at MAN 2 Magetan involves various aspects such as academic scores, non-academic achievements, psychological test scores, IQ results, and interview assessments. However, recommendations are still made manually, which can lead to inaccuracies in student placement. This study aims to design a decision support system using the Analytical Hierarchy Process (AHP) method to assist the academic team and counselling -staff (BP/BK) in providing more accurate and efficient recommendations. AHP is used to assign hierarchical weights to each selection criterion. The system was developed using the Waterfall software development model and built with web technologies (HTML, CSS, JavaScript, PHP), with MySQL as the database. Key features include input of criteria, weighting, student data entry, alternative evaluation, and final selection result calculations. The system was tested using the black box method and implemented online via Cloudflare hosting services. The results showed that the system functioned optimally with 100% testing accuracy, effectively supporting the student selection process in a structured and precise manner.

Keywords: Decision Support System, Analytical Hierarchy Process (AHP), Student Selection, Outstanding Class