

**PERBANDINGAN METODE ANALITICAL HIERARCHY PROCESS
(AHP) DAN TECHNIQUE FOR ORDERS PREFERENCE BY
SIMILARITY TO IDEAL SOLUTION (TOPSIS) DALAM SISTEM
PENDUKUNG KEPUTUSAN PENENTUAN MAHASISWA
BERPRESTASI (MAWAPRES) TINGKAT UNIVERSITAS SAMUDRA**

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ABSTRACT

Outstanding students are students who have succeeded in achieving high achievements, both curricular and co-curricular according to the required criteria. At this time the data processing for determining prospective student achievement uses a manual system which allows errors in the data processing process in determining student achievement. The purpose of this study is to automate decision making by designing a decision support system that can assist in determining the results of determining the outstanding students at the ocean university level in an appropriate and efficient manner by using a comparison of the Analytical Hierarchy Process (AHP) method and the Technique for Order Preference by Similarity to Ideal Solution (TOPSIS). The criteria used as decision support are GPA, scientific work, achievement, non-academic non-academic activities, TOEFL score. The method used in this study is the Analytic Hierarchy Process and Technique for Orders Preference by Similarity to Euclidean Ideal Solution. The results of this study were tested using the Euclidean Distance method, the Analytic Hierarchy Process method is better than the Technique for Orders Preference by Similarity to Ideal Solution Euclidean method with an average student preference closer to zero, in the Analytic Hierarchy Process 0.199999999999998 and in the Technique for Orders Preference by Similarity to Ideal Solution Euclidean 0.497515223761718. In terms of process speed, the Analytic Hierarchy Process method is better than the Technique for Orders Preference by Similarity to Ideal Solution Euclidean method with fewer processes, the Analytic Hierarchy Process 4 process and the Technique for Orders Preference by Similarity to Ideal Solution Euclidean 6 processes.

Keywords: Performance Assessment, AHP, TOPSIS,

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ABSTRAK

Mahasiswa berprestasi merupakan mahasiswa yang berhasil mencapai prestasi tinggi, baik kurikuler maupun kokurikuler sesuai dengan kriteria yang dibutuhkan. Pada saat ini proses pengolahan data untuk penentuan calon mahasiswa berprestasi menggunakan sistem manual yang memungkinkan terjadinya kesalahan dalam proses pengolahan data dalam menentukan mahasiswa berprestasi. Tujuan penelitian ini untuk otomatisasi pengambilan keputusan dengan merancang sebuah sistem pendukung keputusan yang dapat membantu dalam menetapkan hasil penentuan mahasiswa berprestasi tingkat universitas samudra secara tepat dan efisien dengan menggunakan perbandingan metode Analytical Hierarchy Process (AHP) dan Technique for Order Preference by Similarity to Ideal Solution (TOPSIS). Kriteria yang digunakan sebagai penunjang keputusan berupa ipk, karya ilmiah, prestasi, kegiatan non akademik non akademik, skor toefl. Metode yang digunakan pada penelitian ini adalah Analytic Hierarchy Process dan Technique for Orders Preference by Similarity to Ideal Solution Euclidean. Hasil Penelitian ini Pengujian menggunakan metode *Euclidean Distance* metode Analytic Hierarchy Process lebih baik dibandingkan metode Technique for Orders Preference by Similarity to Ideal Solution Euclidean dengan rata-rata preferensi mahasiswa lebih mendekati nol, pada Analytic Hierarchy Process 0.199999999999998 dan pada Technique for Orders Preference by Similarity to Ideal Solution Euclidean 0.497515223761718. Pada kecepatan proses, metode Analytic Hierarchy Process lebih baik dibandingkan metode Technique for Orders Preference by Similarity to Ideal Solution Euclidean dengan proses yang lebih sedikit, pada Analytic Hierarchy Process 4 proses dan pada Technique for Orders Preference by Similarity to Ideal Solution Euclidean 6 proses.

Kata Kunci: Penilaian Kinerja, AHP, TOPSIS