DECISION SUPPORT SYSTEM FOR STUDY PROGRAM USING ANALYTICAL NETWORK PROCESS (ANP) METHOD

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ABSTRACT

In the selection of new students in the Track for Interest and Ability Academic Achievement (PMDK-PA) State Polytechnic of Jember, the process of determining study programs is still done manually, namely through a meeting between the committee for admission of new students and university leaders. This is considered ineffective because it can lead to subjective judgments. In addition, it is less efficient because with the large number of registrants it will take a long time for the committee to make a selection so that it can cause errors in the assessment due to lack of focus or fatigue. Therefore, this study proposes a solution for making a decision support system that can help the committee, especially the academic section, in making selections with a more efficient time and the results obtained are also effective. There are several assessment criteria used, namely report card scores, rankings, achievement, and school. The method used in this research is the Analytical Network Process (ANP), which functions to calculate the weight of the assessment criteria which will be calculated using user input in the form of prospective new student data so as to produce a final score on each data. Then the system will provide evaluation desk recommendations in the form of new students candidate data sorted by final score from largest to smallest. Accuracy testing is done by comparing the manual results with the system, which is an accuracy rate of 41%.

Keywords: PMDK-PA, Decision Support System, Analytical Network Process