

## ABSTRACT

Nowadays, the selection of scholarship recipients only sees one side, which is as academic value without looking at other aspects included in the scholarship requirements. There are also those who take recipients only to cover the quota of scholarship recipients without looking for recipients who are eligible to receive scholarship. Based on these problems, a solution was made in the form of a Decision Support System (DSS) with the K-Nearest Neighbor (KNN) method to decide the scholarship recipient to be on target.

K-Nearest Neighbor (KNN) is a classification method based on the similarity of one data with another data. Data used is in the form of scholarship requirements such as parents' income, the number of dependents of parents, etc. The system will display the results in the form of a decision whether the person deserves a scholarship or not. The system in the form of a web is implemented using R Shiny in the R Programming language.

The web will contain who deserves a scholarship along with a graph plot that can be seen to see the data distribution. This system is quite useful to use in decision making because it runs well seen from the program flow and functional that can run according to the target. The use of large weights and attributes as additional support produces different decisions depending on the amount of data or attributes and weights on each attribute used, the greater the weight or attribute, the greater the resulting difference.

**Key Word:** Decision Support System (DSS), K-Nearest Neighbor (KNN), R-programming, scholarship, R Shiny