

***Implementation of the Random Forest Algorithm for Sentiment Analysis of the  
Danantara Program on Twitter***

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***ABSTRACT***

*This study aims to analyze public sentiment toward the Danantara program on Twitter using the Random Forest algorithm. The data were collected through a crawling process, resulting in 3,132 tweets from February 24 to November 30, 2025. The data processing stages included cleaning, lexicon-based sentiment labeling corrected manually by a language expert, case folding, duplicate data removal resulting in 2,560 data, normalization, tokenization, stopword removal, and stemming. The data were then transformed into numerical representations using term weighting before classification was performed. Model evaluation was conducted using a confusion matrix with a k-fold cross-validation approach, where the best results were obtained in the fourth fold, showing the smallest difference between training and validation accuracy. The testing results indicate that the Random Forest algorithm achieved an accuracy of 85.74%, demonstrating good classification performance. Misclassifications were still found in the form of false positives and false negatives caused by errors in majority voting compared to the actual labels. The developed sentiment analysis dashboard is able to present information concisely and informatively, making it easier for users to understand the analysis results. The system has functioned as intended and is capable of handling unsupported file format inputs by providing warnings, ensuring that the process continues to run as expected.*

***Keywords:*** *Sentiment Analysis, Danantara, Random Forest, Twitter.*