

## ABSTRACT

*In various research sound signal processing has been widely developed, one of which is speech recognition. Each word has characteristic of its voice traits. The introduction of the word is used as training data for unlocking the door.*

*In this final assignment, the spoken word is recorded and carried out the process of extractions using the Mel Frequency Cepstrum Coefficients (MFCC) method to determine the hallmark value of the spoken word. And to predict the words "open" and "key" using the method K-Nearest Neighbor (KNN).*

*The output of this final task is the word classification label "open" and "key" based on the existing sound data. The system accuracy level made amounted to 70%.*

**Keyword :** *Speech Recognition, Mel Frequency Cepstrum Coefficients, K-Nearest Neighbor.*