

ABSTRACT

The age of a toddler is an age that is in dire need of parental monitoring through both short and long distances. A toddler who cries indicates that they are having a problem. A toddler who cries can be marked by a change in the voice that is louder and shrill, the sound that will be analyzed by the author. The processes that must be carried out in conducting speech recognition are extracting the characteristics of the sound obtained by the system and classifying or determining the pattern of the sound. A display is attached to the system using the Linear Frequency Cepstral Coefficients (LFCC) method to identify and characterize toddlers crying sounds and then classified using them and the results will be compared by two classifications namely KNN and SVM. This method and classification can provide accuracy if the system detects toddlers crying sound, at KNN the highest results are obtained using $K = 3$ which is 89% and after further testing using $K = 3$ and the comparison of training data and test data is 80: 20.50 : 50.70: 30.60: 40 because the total training data and test data is 100. The highest results obtained by the ratio of 50:50 is 86.4% in SVM, the highest accuracy is 82% with the comparison of the result data and test data of 60:40. Next is the recording test when the sound is heard by the system will be followed by a notification system to parents by giving notification to their smartphone in the telegram application.

Keywords : *baby crying, Audio processing, speech recognition, Linear Frequency Cepstral Coefficients, KNN and SVM*