

ABSTRACT

Children who are one to three years old need identical monitoring by parents over long distances or close distances. Monitoring an activity that aims to monitor or observe an object. Child crying is a form of communication for children who experience a problem. This is the focus of the author in analyzing and detecting sounds from children. Cries of children can be characterized according to the periodic nature of the tone of the shout and the change of voice. Crying sounds usually have a base frequency (pitch) of 250-600Hz. The study of speech recognition has two main processes, namely extracting features from the sound that is obtained and classifying or determining the pattern of the sound. There are many methods available, so the selection of sound analysis methods uses the Linear Frequency Cepstral Coefficient (LFCC) algorithm to identify and detect the characteristics of the child's crying sound. Where this method is able to work as a human hearing in providing a perception of the sound that is heard. Then the algorithm is paired with the K-NN classification method which is considered capable of classifying a child crying or not so that it can be applied as a solution for remote monitoring system of child by parents.

Keywords: *Speech Recognition, Audio Processing, Linear Frequency Cepstral Coefficient, K-NN, and Baby Crying.*