

ABSTRACT

One of the symptoms of vocal cord disorders include changes that occur in the normal voice such as a hoarseness, a weak voice, and breathy voice. To diagnose vocal cord disorders, it is necessary to do an initial diagnosis through an analysis of the patient's voice quality. The aim of this research was to develop a non-invasive early diagnosis method through the classification of vocal cord disorders using machine learning methods. In this research, a system has been created that can classify vocal cord disorders, namely in the classification of normal or healthy voices or sick voices based on signals obtained from voice recordings. The voice signal is preprocessed in the form of audio visualization to be classified using convolutional neural network (CNN) method. From this research that has been completed, the classification test using selected parameters through the CNN algorithm method can work as well to classify the vocal cord disorders with accuracy of 89.45%.

Keywords: Classification of Vocal Cord Disorders, Convolutional Neural Network, Image Processing, Machine Learning