Healthy and Asthmatic Sounds Classification using Fuzzy Clustering based Cascade Classifier Methods

Abstract

In this study, our aim is to presents different cascade classifier models based on Fuzzy C-means clustering methods, to classified normal and asthmatic lung sounds. The lung sounds recorded from both left and right lobe of the lung and divided inspiration and expiration phases. The frequency spectrum is obtained by using Fast Fourier Transform (FFT). After obtaining the spectrums of healthy and asthmatic lung sounds, fuzzy c-mean is applied to cluster the spectrum and then supervised classifier ANN, Naive Bayes and SVM are applied to classified healthy and asthmatic lung sounds.

References

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Index Terms

Computer Science Fuzzy Systems

Keywords

Lung sounds, Fuzzy c Means, ANN, Naïve Bayes, SVM.