

# **Audio Classification using Gaussian Mixture Model**

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## **Abstract**

*This paper describes the work done on the development of an audio classification system. Audio recordings are classified into basic audio types such as speech or music. Audio classification is processed in two parts, feature extraction and classification, which makes it suitable for different applications. In first part, input audio signal is transformed into feature vectors, carrying characteristics information about the signal. Audio Features for this task include Short Time Energy (SE), Zero Crossing Rate (ZC) and Mel Frequency Cepstral Coefficient (MFCC). The second part classify feature vector into speech or music. Gaussian Mixture Model (GMM) is used for classification task. The overall accuracy rate of this paper gets around 93%.*