Abstract

In this paper a simple approach to text dependent speaker identification using spectrograms and row mean is presented. This, mainly, revolves around trapping the complex patterns of variation in frequency and amplitude with time while an individual utters a given word through histogram equalized spectrogram. These histogram equalized spectrograms are used as a database to successfully identify the unknown individual from his/her voice. The features used
for identifying, rely on optimal spectrogram segmentation and the Euclidean distance of the
distributional features of the spectrograms of the unknown voice with that of a given known
speaker in the database. Performance of this novel approach on a sample collected as two
separate databases from 12 speakers and 28 speakers show that this methodology can be
effectively used to produce a desirable success rate.

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Index Terms

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Key words

Speaker Recognition  Speaker Identification
Text Dependent Speaker Identification using Row Mean Vector of Variable Sized Spectrogram

Histogram

Spectrograms

Row Mean