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Developed Text-Independent Speaker Verification System

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Abstract : Speech is a very convenient way of communication between people and machines. It conveys information about the identity of the talker. Since speaker recognition technology is increasingly securing our everyday lives, the objective of this paper is to develop two automatic text-independent speaker verification systems (TI SV) using low-level spectral features and machine learning methods. (i) The first system is based on a support vector machine (SVM), which was widely used in voice signal processing with the aim of speaker recognition involving verifying the identity of the speaker based on its voice characteristics, and (ii) the second is based on Gaussian Mixture Model (GMM) and Universal Background Model (UBM) to combine different functions from different resources to implement the SVM based.

Keywords : speaker verification, text-independent, support vector machine, Gaussian mixture model, cepstral analysis
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