

عنوان مقاله:

Presenting a New Text-Independent Speaker Verification System Based on Multi Model GMM

محل انتشار:

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خلاصه مقاله:

Speaker verification is the process of accepting or rejecting claimed identity interms of its sound features. A speaker verification system can be used for numerous security systems, including bank account accessing, getting to security points, criminology and etc. When a speaker verification system wants to check the identity of individuals remotely, it confronts problems such as noise effect on speech signal and also identity falsification with speech synthesis. In this system, we have proposed a new speaker verification system based on Multi Model GMM, called SVMGM, in which all speakers are divided into seven different age groups, and then an isolated GMM model for each group is created; instead of one model for all speakers. In order to evaluate, the proposed method has been compared with several speaker verification systems based on Naïve, SVM, Random Forest, Ensemble and basic GMM. Experimental results show that the proposed method has so better efficiency than others.

کلمات کلیدی:

biometric attributes, speaker verification, Gaussian Mixture Model (GMM), Support Vector Machine (SVM), Decision Trees (DT), Ensemble Classifiers

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