ABSTRACT

Compared to other biometric identity verification, speaker verification has some advantages, the most obvious one is the inclusion of microphone on a lot of devices. That reason makes speaker verification interesting, as it enable the addition of this new verification method through software update, without the need of additional hardware.

Research in speaker verification have been done in conjunction with other speaker recognition research. In speaker recognition research it is usually done using MFCC (*Mel Frequency Cepstral Coefficients*) to recognize speaker identity. In this paper, an experiment will be conducted to understand how is the accuration of Text Dependent Speaker Verification (TD-SV) using I-vector extraction and Gaussian Mixture Model (GMM).

I-vector extraction is known to have better accuration compared to MFCC in Speaker Recognition aplication. This experiment can show how is the accuration of TD-SV using i-vector extraction and GMM in Speaker Verification compared to MFCC approach. By incorporating i-vector extraction, we achieve False Rejection Rate as low as 60%, False Acceptance Rate at 0.0% and Error Rate at 12%.

Keyword : Text Dependent Speaker Recognition, I-vector, Gaussian Mixture Model