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Evaluation of GMM Based Speaker Recognition Systems Using Dynamic Features
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Abstract

The dynamic features of the LPC-Cepstral coefficients (delta and double-delta cepstral) can be used to improve the performance of a Speaker Recognition System (SRS), because the delta and double-delta represent the derivative of the LPC-Cepstral coefficients with respect to the time (speed and acceleration respectively), allowing that the speaker features become less sensitive to channel and environment distortion. Taking this fact in account, this paper presents an analysis of SRS performance using feature vectors obtained from delta and double-delta LPC-Cepstral coefficients that complements a previously published paper. The evaluation results show that the dynamic features improve the performance of speaker recognition system compared with the baseline SRS which use only the LPCcepstral coefficients.

Keywords

Speaker recognition, LPC-Cepstral, Delta LPCCepstral,
Double-delta LPC-Cepstral, GMM