Abstract

In this paper, an approach based on Kekre’s fast code book Generation (KFCG) Algorithm in the transform domain has been proposed. KFCG is used for feature extraction in both the training and testing phases. Three methods for codebook generation have been used. In the 1st method, codebooks are generated from the speech samples by using Discrete Fourier Transform (DFT). In the 2nd method, the codebooks are generated using Discrete Cosine Transform (DCT). In the 3rd method, the codebooks are generated using the Discrete Sine Transform (DST). For speaker identification, the codebook of the test sample is similarly generated and compared with the codebooks of the reference samples stored in the database. The results obtained for the above methods in the transform domain are compared with the results obtained in the time domain analysis. The results show that KFCG gives better results in transform domain than in time domain. Also the results improve as the vector dimension while
generating the codebook is increased.

Reference

Comparative Analysis of Automatic Speaker Recognition using Kekre’s Fast Codebook Generation Algorithm in Time and Transform Domain

2004.


Index Terms

Computer Science

Algorithms

Key words
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<tr>
<th>Vectors</th>
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