Abstract

In this paper, two approaches for speaker Recognition based on Vector quantization are proposed and their performances are compared. Vector Quantization (VQ) is used for feature extraction in both the training and testing phases. Two methods for codebook generation have been used. In the 1st method, codebooks are generated from the speech samples by using the Linde-Buzo-Gray (LBG) algorithm. In the 2nd method, the codebooks are generated using the Kekre’s Fast Codebook Generation (KFCG) algorithm. 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 both the methods have been compared. The results show that KFCG gives better results than LBG.

Reference

Performance Comparison of Speaker Recognition using Vector Quantization by LBG and KFCG


Index Terms

Computer Science          Speach Processing

Key words

Vector Quantization (VQ)

Code Vectors

Code Book

Euclidean distance