ABSTRACT

This study discusses speaker recognition, the mechanism of recognizing the subject's identity based on the characteristics of its voice. In this final project, a desktop-based system is designed to obtain characteristics based on existing voice data and modeling of each voice data.

Firts, the subject's voice signal is extracted to get their characteristics using LFCC (linear frequency cepstral coefficients) method. The output from LFCC is a feature vector called cepstral.

Furthermore, the output from LFCC will be modeled using GMM (Gaussian mixture model) method. The output of this final task is the sound classification label and speaker recognition based on existing voice data. The system has a 96% accuracy rate.

***Keywords**: Speaker recognition, Linear Frequency Cepstral Coefficient (LFCC), Gaussian mixture model (GMM).*