Speaker Recognition System using MFCC through MATLAB

Project Supervisor:
Ms. Farah Sarwar
(Asstt. Prof.)

Project Members:
Jamshaid Farooq (111619227)
M. Jawad Javaid (111619238)
Sarim Naveed (111619222)

A Project report submitted in partial fulfillmentof the requirement for the degree of Bachelors in Electrical Engineering

Department of Electrical Engineering

School of Engineering

University of Management & Technology
Lahore, Pakistan

ACKNOWLEDGEMENTS

First of all, we would like to place on record our wide feel of regard and gratitude towards our advisor**Asstt. Prof. Farah Sarwar**for guiding us in this project. We similarly love to denote our heartfelt thanks to Projects Director **Mr. Jameel Ahmad** who provided us with invaluable help information inseveral representative texts in our scheme.

In order to achieve better performance, we should have to learn our nature and surroundings. There are lots of forces which will act upon us to get the better result, but for that we have to change our perspective to see them.Yes, we get sometimes disheartened due to the problems that are not solving directly. Although, the next day we work on the problem with same efficiency and strength but with some other approach and we become successful. Moreover, we are extremely thankful to our parents and teachers who were there all the time, encouraging us and their undue support have been energizing to complete our project in time.

Table of Contents

This Page Intentionally Left Blank

1. *Introduction*

Speaker Recognition as the namenominates is technology that relies on that fact that we all have a unique voice that identifies us. Speaker recognition software is most commonly used in security applicationsespecially in systems that use voice activation or provide access through speaker's voice e.g. banking via telephone, database access, voice dialing etc.By checking how closely matched the speaker's voice is to those in a system such applications authenticate user identity and control access.

Speaker recognition is divided into two fields; speaker identification and speaker verification. The first i.e. identification means to determine whether or not the voice at the input belongs to a known speaker and the second field i.e. verification means to determine whether the person is really who they claim to be.

In speaker recognition the unique features of a person's voice are extracted and then analyzed to identify the speaker. These features are stored in a speaker database and then the unknown speaker at the input is compared to the prototypes in this database to perform recognition.

Before we proceed further we must mention here that speaker recognition and speech recognition are two very different things. In speech recognition the objective is to identify what was being said while in speaker recognition the goal is to spot who was speaking.