SPEECH EMOTION RECOGNITION USER MANUAL

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FACULTY OF ENGINEERING

COMPUTER ENGINEERING DEPARTMENT

CENG 408

Innovative System Design and Development II

SPEECH EMOTION RECOGNITION

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# Requirements to use the Speech Emotion System

- An audio file with a .wav extension or a text.
- A device with an Internet Connection.
- A web browser to connect to the Speech Emotion Recognition System.

1. Introduction

This user guide explains how to use the SER(Speech Emotion Recognition) Project step by step. Please follow the instructions in the manual to understand the different parts of the project and get maximum efficiency from the system.

2. Home

The Homepage is the starting point where you can enter the SER Project. On this page, the user can make a choice according to whether he will analyze by writing text or from the audio file, and click on the "Text" or "Speech" button from the navigation bar accordingly. If he wants to learn about the system instead of analysis, he can go to the "FAQ" section and get information.
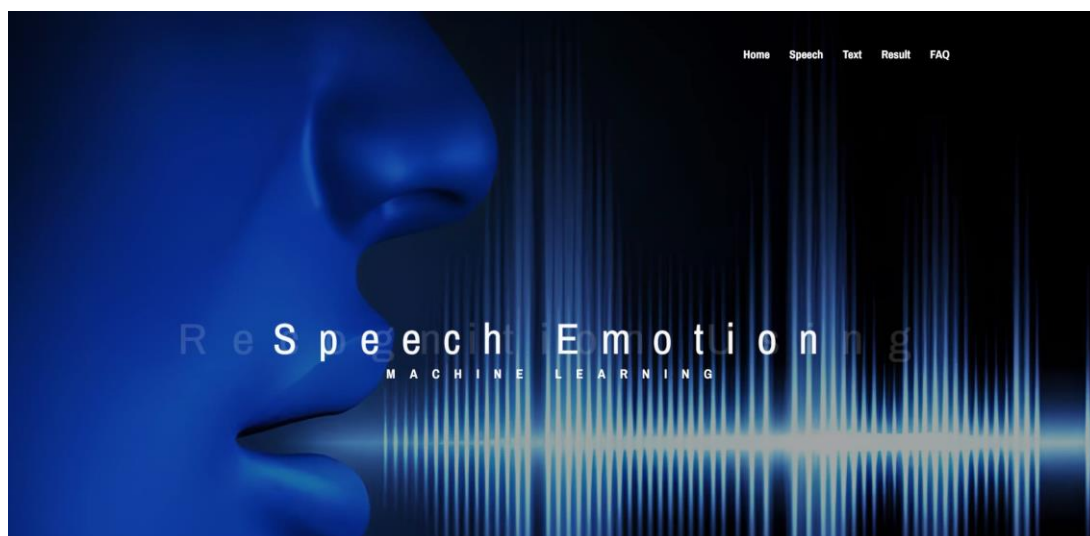
3. Text Page

The Text Analysis section performs sentiment analysis by converting audio files into text. Users can analyze the text they write on a text model that works with BERT (Bidirectional Encoder Representations from Transformers) and ANN (Artificial Neural Network) techniques. After the user clicks the submit button, the user is directed to the "Result" page.

4. Speech Page

The Speech Analysis section uses SVM (Support Vector Machine), BERT (Bidirectional Encoder Representations from Transformers) and ANN (Artificial Neural Network) techniques to describe the emotional states of audio files. The files that the user will upload must have a .wav extension. After the file upload is complete, the user is directed to the "Results" page.

5. Results

The Results section shows the results generated by the Voting Algorithm combining the results of Text Analysis and Speech Analysis. Users can view a combination of audio and text-based analysis results as a chart and see the emotional tag or intensity with the highest votes.
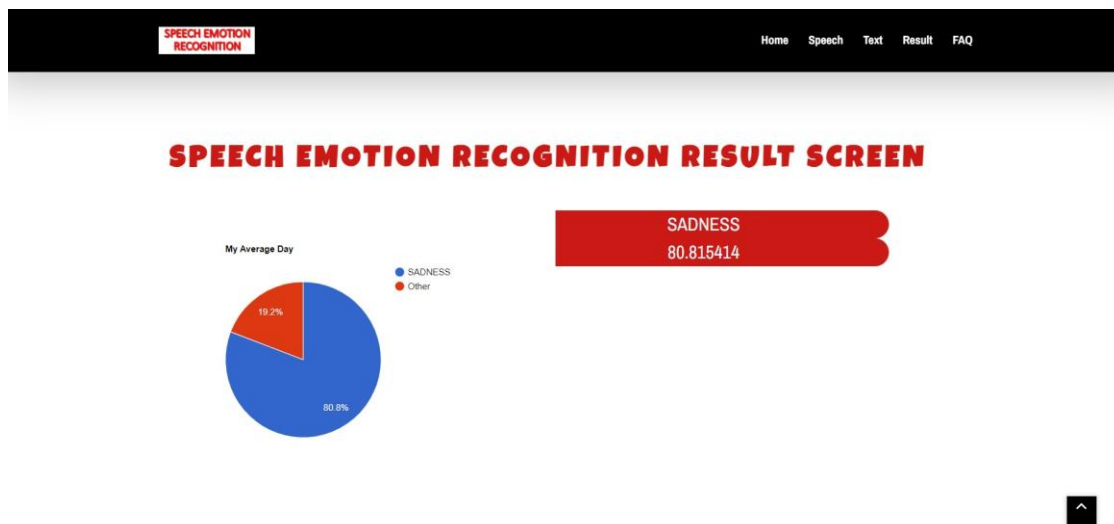
6. Frequently Asked Questions (FAQ)

The Frequently Asked Questions (FAQ) section contains answers to common questions about the SER Project. This section helps users better understand the system and resolve potential problems. Please review this section and search for any questions you have here.

This user guide describes general usage of the SER Project. For more detailed instructions and information about each section, it is important to refer to the respective pages.