# Speech Emotion Recognition

# Sushilkumar Ambhore Satish Bitra Tapas Rout

# [sushilkumarambhore@my.unt.edu](mailto:sushilkumarambhore@my.unt.edu) [satishbitra@my.unt.edu](mailto:satishbitra@my.unt.edu) [tapasrout@my.unt.edu](mailto:tapasrout@my.unt.edu)

# Abstract

Communication is essential for clearly expressing one's thoughts and ideas. Speech is still the most preferred highly powerful mode of communication among all types of communication in humans. More sophisticated systems are becoming available for regular usage as the digital era progresses. Intelligent applications are interactive and require minimal human effort to use, and rely on voice-based input for the most part. As a result, these computer programs must be able to fully interpret human speech. Gender, age, language, and emotion are all things that a speech percept can disclose about the speaker. This study describes a speech emotion recognition system that attempts to identify speech percepts more accurately based on emotions.

**Motivation**

In this fast-moving digital world providing the customer service (support) to users is key and playing vital role to increase the business and customer satisfaction. It makes sense to customer executive to talk each user in same manner and provide same experience. Motivation behind this project idea is to understand the customers emotions from the conversation and improve the customer service and add more customers to business.

**Significance**

By understanding the customer’s sentiment, executives can provide better service and win customer and make sure they don’t discontinue the product use. Therefore, further research on speech emotion recognition has important practical significance for promoting the progress of human-computer interaction.

**Objectives**

The Project Speech Emotion Recognition’s objective is to capture the customers speech and get their emotions from it and build model using python and various library using datasets.

**Features**

This project will have following features: -

* Data sets creation
* Data Extraction
* Data Cleaning and Processing
* Building model to understand the emotions
* Train the Model
* Plot couple of Graphs

**Technologies used**

**Implementation**

**of the project:** Python

**Library:** libROSA

**Dataset:** RAVDESS

**GIT Hub Project Link**

<https://github.com/tapas63/NLP_Group-Project>

**References**

Team has spent time to review couple of technical papers to get more information on this project idea and below are couple of reference links: -

<https://www.computer.org/csdl/proceedings-article/ised/2014/6965a217/12OmNzBwGJ5>

<https://www.computer.org/csdl/proceedings-article/acii/2017/08273599/12OmNzyp5UL>

<https://www.computer.org/csdl/proceedings-article/aciiw/2019/08925058/1fHFg5hEuEE>