

## Walchand College Of Engineering, Sangli.

#### (An Autonomous Institute)

**Department Of**

#### Computer Science and Engineering

TY CSE Mini Project-3

Report

On

**Speech Emotion Recognition**

Submitted by

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Under the Guidance of

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Guide

Computer Science & Eng. Dept, WCE, Sangli.

**2021-2022**



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### CERTIFICATE

This is to certify that the Project Report entitled, **”SPEECH EMOTION RECOGNITION”** submitted by Mr. Omkar Patil, Mr. Pratik Chougule, Mr. Pravin Lokhande, to Walchand College of Engineering, Sangli, India, is a record of bonafide Project work of course *”Mini Project-3”* carried out by him under my supervision and guidance and is worthy of consideration for the award of the degree of Bachelor of Technology in Computer Science & Engineering of the Institute.

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| --- | --- | --- |
| **Miss P. Lanjewar** |  | **Dr. M. A. Shah** |
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# Acknowledgement

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Secondly, we would also like to thank the teammates who worked together in finishing this project within limited time. Finally, thanks to all who supported the project.

# Declaration

I hereby declare that work presented in this project report titled “**SPEECH EMOTION RECOGNITION”** submitted by me in the partial fulfillment of the requirement

of the award of the degree of **Bachelor of Technology (B. Tech)** Submitted in the **Department of Computer Science & Engineering, Walchand College of Engineering, Sangli**, is an authentic record of my project work carried out under the guidance of Mr. P. Lanjewar.

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#### Project title

SPEECH EMOTION RECOGNITION

#### Abstract

Emotion recognition from speech signals is an important but challenging component of Human-Computer Interaction (HCI). In the literature of speech emotion recognition (SER), many techniques have been utilized to extract emotions from signals, including many well-established speech analysis and classification techniques.

The goal of the human interface is to recognize the user’s emotional state precisely. In the speech emotion recognition study, the most important issue is the effective parallel use of the extraction of proper speech features and an appropriate classification engine.

#### Introduction and Related work

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#### Problem statement

To create a platform which helps to predict the emotion of the users from their speech.

#### Objectives

* **To study the concepts of Deep Learning, Librosa and Python.**
* **To collect the Dataset from RAVDESS Dataset.**
* **To create a Model for the prediction purpose.**
* **To train and test the model using the dataset.**
* **To check and maintain the accuracy of the model.**

#### Methodology

* **Collect the audio files from the dataset.**
* **Implement the program for the model.**
* **Use of audio files from the RAVDESS Dataset for the data processing and prediction.**
* **Training the model to maintain the accuracy.**
* **Testing the trained model.**
* **Prediction of the emotion from the speech of the user.**

#### Project diagrams

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#### Testing (Unit, Integration and System)

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#### Results and Conclusion

* **Deep learning can be used effectively to predict the emotions of the users.**
* **This model will be beneficiary in certain sectors and will be user-friendly.**
* **Using the proposed model, we can classify number of emotions.**
* **It’s efficiency can be increased by using more precise DNN architecture.**

#### References

**References**

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* <https://ieeexplore.ieee.org/abstract/document/8805181>

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