# STUDENT-T PRIOR BASED SPEECH ENHANCEMENT USING ITERATIVE POSTERIOR NMF

# A

## Project Report Submitted

## In partial fulfillment of the requirements for the award of the Degree of

## BACHELOR OF TECHNOLOGY

## In

## COMPUTER SCIENCE & ENGINEERING

## By

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## Under the esteemed guidance of

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Diagram, shape

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**DEPARTMENT OF COMPUTER SCIENCE &ENGINEERING**

**LAKIREDDY BALIREDDY COLLEGE OF ENGINEERING**

**(AUTONOMOUS)**

**Accredited by NAAC with ‘A’ Grade & NBA (Under Tier - I), ISO 9001:2015 Certified Institution Approved by AICTE, New Delhi and Affiliated to JNTUK, Kakinada**

**L.B. REDDY NAGAR, MYLAVARAM, NTR DIST., A.P.-521 230.**

**2019-2023**

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**Department of**

**COMPUTER SCIENCE & ENGINEERING**

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**CERTIFICATE**

This is to certify that the project entitled “**Student-T Prior Based Speech Enhancement Using Iterative Posterior NMF”** is being submitted by

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in partial fulfillment of the requirements for the award of degree of B**. Tech** in **Computer Science & Engineering** from **Jawaharlal Nehru Technological University Kakinada** is a record of bonafide work carried out by them at **Lakireddy Bali Reddy College of Engineering.**

The results embodied in this Project report have not been submitted to any other University or Institute for the award of any degree or diploma

### **PROJECT GUIDE** **HEAD OF THE DEPARTMENT**

**Dr. B.Manaswini Dr. D.Veeraiah**

|  |
| --- |
| **EXTERNAL EXAMINER** |

# ACKNOWLEDGEMENT

We take great pleasure to express our deep sense of gratitude to our project guide **Dr. B. Manaswini,** Associate Professor, for her valuable guidance during the course of our project work.

We would like to thank **Dr. D. Veeraiah**, Professor & Head of the Department of Computer Science & Engineering for his encouragement.

We would like to express our heart-felt thanks to **Dr K. Appa Rao,** Principal, Lakireddy Bali Reddy College of Engineering for providing all the facilities for our project.

Our utmost thanks to all the faculty members and Non-Teaching Staff of the Department of Computer Science & Engineering for their support throughout our project work.

Our Family Members and Friends receive our deepest gratitude and love for their support throughout our academic year.

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**DECLARATION**

We are here by declaring that the project entitled **“Student-T Prior Based Speech Enhancement Using Iterative Posterior NMF”** work done by us. We certify that the work contained in the report is original and has been done by us under the guidance of our supervisor. The work has not been submitted to any other institute in preparing for any degree or diploma. We have followed the guidelines provided by the institute in preparing the report. We have confirmed to the norms and guidelines given in the Ethical Code of Conduct of the Institute. Whenever we have used materials (data, theoretical analysis, figures and text) from other sources, we have given due credit to them by citing them in the text of the report and giving their details in the references. Further, we have taken permission from the copyright’s owner of the sources, whenever necessary**.**

## Signature(s) of the students(s)

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**ABSTRACT(16)**

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# LIST OF FIGURES

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**LIST OF ABBREVIATIONS**

1. LR- Linear Regression
2. SVM- Support Vector Machine
3. **INTRODUCTION**
   1. **Overview of The Project**

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* 1. **Feasibility Study**

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**1.2.1 Economical Feasibility**

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**1.2.2 Technical Feasibility**

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**1.3 Scope**

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**2.LITERATURE SURVEY**

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**2.1 Existing System & Drawbacks**

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**Limitations:**

**2.2 Proposed System**

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**{\displaystyle p\_{G}(z)={\frac {1}{\sigma {\sqrt {2\pi }}}}e^{-{\frac {(z-\mu )^{2}}{2\sigma ^{2}}}}}3.SYSTEM ANALYSIS**

**3.1 Overview of System Analysis**

### **Requisites Accumulating and Analysis**

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### **System Design**

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### **Implementation**

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### **Testing**

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### **Deployment of System**

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### **Maintenance**

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## Software Used in The Project

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**SYSTEM REQUIREMENTS**

* + 1. **Software Requirements**

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## Hardware Requirements

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**4. SYSTEM DESIGN**

**4.1 Overview of System Design**

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**System Design:**

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**5.CODING & IMPLEMENTATION**

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**6.SYSTEM TESTING**

**6.1 Overview of Testing**

**6.2 Types of Tests**

**6.2.1**

**6.2.2**

**7.RESULTS**

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**9.REFERENCES**

1. Y. Ephraim