VSMS - Voice Based SMS System

Submitted in partial fulfilment of the requirements of the Degree of Bachelors of Engineering in Computer Engineering

By

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CERTIFICATE

This is to certify that the project entitled ***"VSMS – Voice Based SMS System"*** *is a bonafide work of* ***"DARSHAN GONDALIA", "ISHA HAVALDAR", "KAMAKSHI THAKKAR"*** *submitted to the University of Mumbai in partial fulfilment of the requirement for the award of the degree of* ***"Bachelors of Engineering"*** *in* ***"Computer Engineering".***

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PROJECT APPROVAL FOR B.E.

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DECLARATION

We declare that this written submission represents our ideas in our own words and where others' ideas or words have been included, we have adequately cited and referenced the original sources. We also declare that we have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in our submission. We understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

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ABSTRACT

Technology has taken over the market since the last decade . Nowadays mostly each and every individual in the society has smart phones. Over the years, speech recognition has taken over the market. The speech input can be used in varying domains such as automatic reader and for inputting data to the system. Speech recognition can minimize the use of text and other types of input, at the same time minimizing the calculation needed for the process. A decade back speech recognition was difficult to use in any system, but with elevation in technology leading to new algorithms, techniques and advanced tools. Now it is possible to generate the desired speech recognition output.

Voice or signaled input is inserted through any speech device such as microphone, then speech can be processed and converted to text and hence the user will be able to send an SMS, also phone number can be entered either by voice or you may select it from the contact list. Voice as a medium for communication has become a boon for a variety of user's such as senior citizens, illiterate, handicapped, etc. Thus it is being used for developing a system which will be helpful to the society.

CONTENTS

List of Abbreviations

VSMS – Voice Based SMS System

HMM - Hidden Markov Model.

MFCC– Mel-frequency Cepstral Coefficients.

LPC - Linear Predicted Coefficients.

SVM - Support Vector Machine.

STT - Speech to Text.

CDHMM - Continuous Density Hidden Markov Model.

ASR - Automatic Speech Recognition.

PCM - Pulse Code Modulation.

DNN - Deep Neural Networks.

DBN - Deep Belief Networks.

GMM - Gaussian Mixture Model.

RBM - Restricted Boltzmann Machine.

IEEE - Institute of Electrical and Electronics Engineers.

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