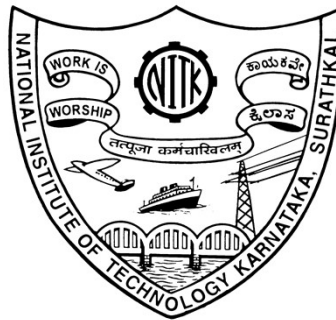


A Project Proposal on Speech Summarization

Under the guidance of
Dr. Shashidhar G. Koolagudi

Presented By
Yogendra Kumar
172CS026



Department of Computer Science and Engineering
National Institute of Technology Surathkal

Outline

- ▶ Introduction
- ▶ Applications
- ▶ Motivation
- ▶ Literature Survey
- ▶ Research Gap
- ▶ Problem Statement
- ▶ Objectives

Introduction

- ▶ Issues in processing the speech data available on the Internet.
- ▶ Automatic identification of the relevant, significant and interesting parts of the speech.
- ▶ **Ways of the speech summarization**
 1. Extractive Summarization
 2. Abstractive Summarization

Applications

- ▶ The summary of the recorded meetings.
- ▶ For a television show that will have summary of the all broadcast news shows of the day.
- ▶ Voicemail/Voicecall summary.

Motivation

- ▶ **Loss of information in text processing**
 1. In text summarization we may lose the information related to the emotions present in the speech.
- ▶ **Language Independent speech summarization.**

Literature Survey

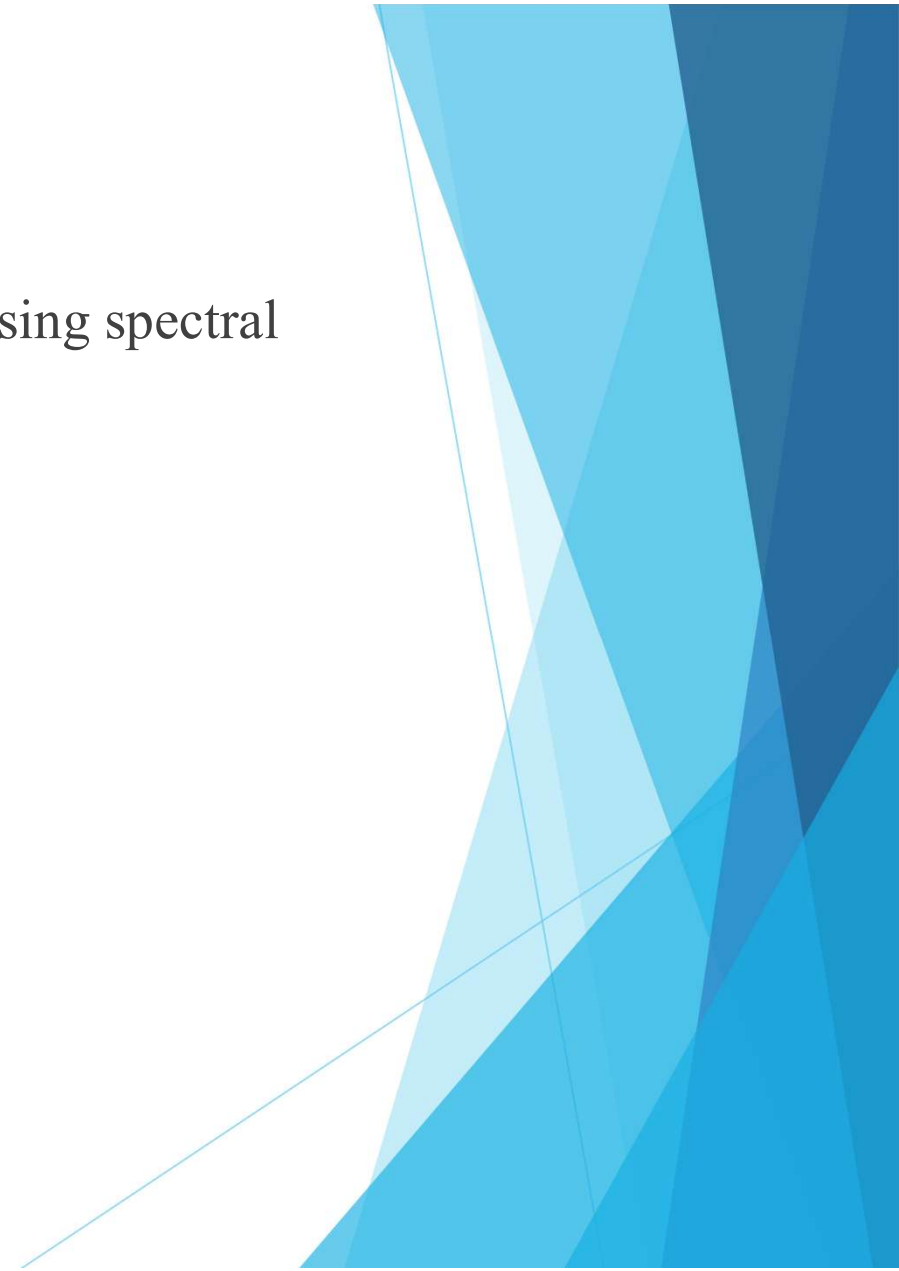
S.N.	Paper	Approach
1	From Text to Speech Summarization	The speech summarization using the techniques of text summarization.[3]
2	Summarizing Speech Without Text Using Hidden Markov Models	Summarizing speech documents without using any type of transcript/text in a Hidden Markov Model framework.[2]
3	Automatic Broadcast News Speech Summarization	Speech summarization using lexical feature, acoustic/prosodic feature, structural feature, discourse feature .[1]

Research Gap

- ▶ Loss of information in text summarization.
- ▶ Unavailability of a proper evaluation measures in speech summarization.

Problem Statement

- ▶ To generate an extractive summary of the speech using spectral and acoustic features.



Objectives

- ▶ Extraction and analysis of the features efficient in speech summarization.
- ▶ Automatic speech summarization using various combination of selected speech features.



References

- ▶ Sameer Raj Maskey. “Automatic Broadcast News Speech Summarization” Submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in the Graduate School of Arts and Sciences COLUMBIA UNIVERSITY, 2008.
- ▶ Sameer Maskey, Julia Hirschberg ”Summarizing Speech Without Text Using Hidden Markov Models”. Proceedings of the Human Language Technology Conference of the North American Chapter of the ACL, pages 89–92, New York, June 2006. .
- ▶ Kathleen McKeown, Julia Hirschberg, Michel Galley and Sameer Maskey ”FROM TEXT TO SPEECH SUMMARIZATION”. Conference Paper in Acoustics, Speech, and Signal Processing, 1988. ICASSP-88., 1988 International Conference on , April 2005

Thank You

