INTRODUCTION

- Create a keyword spotting system to locate candidate regions for a query in the lecture audio
  - lectures recorded in a single channel and a single speaker environment
  - query keywords extracted from lectures or recorded on the laptop
- Create indexing tools to facilitate lecture indexing using keyword spotting
  - tools for accessing hits and creating hierarchical annotations

INTRODUCTION

- Create a keyword spotting system to locate candidate regions for a query in the lecture audio
  - lectures recorded in a single channel and a single speaker environment
  - query keywords extracted from lectures or recorded on the laptop
- Create indexing tools to facilitate lecture indexing using keyword spotting
  - tools for accessing hits and creating hierarchical annotations

RESULTS

Figure 2: Precision@10 and Precision@20 for 20 queries recorded on the laptop
- Average precision@10 of 70% for 20 queries recorded on the laptop
- Average precision@10 of 76% for 20 queries extracted from lecture audios

RESULTS

Figure 2: Precision@10 and Precision@20 for 20 queries recorded on the laptop
- Average precision@10 of 70% for 20 queries recorded on the laptop
- Average precision@10 of 76% for 20 queries extracted from lecture audios

METHODOLOGY

- Mel Frequency Cepstral Coefficients [2]
- Dynamic Time Warping
- Mel Frequency Cepstral Coefficients [2]
- Normalization [1]
- Segmental Dynamic Time Warping [3]
- Dynamic Time Warping
- Segmental Dynamic Time Warping [3]

CONCLUSION

- Environmental mismatch affects the performance of the system heavily
- ‘Whitening’ process reduces the impact of higher values of lower frequencies in laptop recorded queries
- Error reduction of 55.9% over the previous results for laptop recorded queries
- Performance is better when the query has a distinctive pronunciation i.e. ‘reduce’ vs ‘row-reduced’
- Indexing tools facilitate the lecture annotation and searching process

CONCLUSION

- Environmental mismatch affects the performance of the system heavily
- ‘Whitening’ process reduces the impact of higher values of lower frequencies in laptop recorded queries
- Error reduction of 55.9% over the previous results for laptop recorded queries
- Performance is better when the query has a distinctive pronunciation i.e. ‘reduce’ vs ‘row-reduced’
- Indexing tools facilitate the lecture annotation and searching process

REFERENCES


REFERENCES


ACKNOWLEDGEMENT

This work is based upon the work supported by the National Science Foundation (USA) under the Grant No. HCC-1218801

ACKNOWLEDGEMENT

This work is based upon the work supported by the National Science Foundation (USA) under the Grant No. HCC-1218801

CONTACT INFORMATION

Web www.cs.rit.edu/~dprl
Email mk2852@rit.edu

CONTACT INFORMATION

Web www.cs.rit.edu/~dprl
Email mk2852@rit.edu