Abstract

Accent is the basic pattern of acoustic feature and pronunciation. It can identify the person's social and linguistic background. It is an important source of inter as well as intra speaker variability. The accent dependent dictionary or model can be used to improve accuracy of speech recognition system. In this study we present an experimental approach of acoustic speech feature for Marathi & Arabic accents for English speaking. The detail study of acoustics correlates the accent using formant frequency, energy and pitch characteristics. The database consists of speech from speaker with Marathi as their mother tongue and speakers from Iraq with Arabic language as mother tongue. Both the speakers were asked to speak English number from zero to nine. Through experimental results the fifth formant frequency found to be very effective for accent recognition.

References

- A. Ikeno and J. H. L. Hansen, "The effect of listener accent background on accent
Accent Recognition for Indian English using Acoustic Feature Approach

- Xuejing Sun. Pitch accent prediction using ensemble machine learning, Department of Communication Sciences and Disorders, Northwestern University 2299 N. Campus Dr., Evanston, IL 60208, USA.
- Variation of vocal format and speech [online] http://hyperphysics. phy-astr. gsu.
Accent Recognition for Indian English using Acoustic Feature Approach

- John N. Holmes, Wendy J. Holmes and Philip N. Garner &quot;Using formant frequencies in speech recognition, Speech Technology Consultant, 19 Maylands Drive, Uxbridge, UB8 1BH, U. K.
- P. Schmid and E. Barnard, &quot;Robust, N-Best Formant Tracking&quot;, Proc. EUROspeech&amp;apos;95, pp. 737-740, Madrid, 1995
- L. Welling and H. Ney, &quot;A Model for Efficient Formant Estimation&quot;, Proc. IEEE ICASSP, pp. 797-800, Atlanta, 1996

**Index Terms**

Computer Science

Pattern Recognition

**Keywords**

Accent Acoustic Energy Formant Frequency Pitch Foreign