Abstract

In this paper a comparative analysis of speech signal is performed using different window techniques. As each communication system consists of three major parts that are transmitter, receiver and channel. The level of power transmitted from transmitter end decides its ability to travel up to longer distance with minimum distortion. For analysis, first of all a signal out of audio frequency range is selected and then a small portion of this signal is extracted using framing technique. The resulting signal frame is passed through Hamming, Hanning and Blackman window and their respective power spectral densities are calculated. To analyze power content of signal Fast Fourier Transform is used. It can be obtained from the simulated results that Blackman window contains almost double power as compared to Hamming and Hanning window.

References

1. Mr. Maruti Saundade and Mr. Pandurang Kurle, Speech Signal Recognition using Digital

Power Spectral Density Analysis of Speech Signal using Window Techniques


Index Terms

Computer Science

Signal Processing

Keywords
Speech analysis; Power Spectral Density; Fast Fourier Transform; FIR; Hamming Window; Hanning Window; Blackman Window.