

ABSTRACT

Reverberation effects on speech signal in a room become a critical issue in many applications of speech signal. Some problems often occur in teleconferencing systems and speech signal recording system. Reverberation defined as the combined effects of multiple reflections (multiple reflections) in a room.

Reverberation effects may interfere the listeners in interpreting the information signal or noise that heard. Dereverberation is a method that can be used to reduce the effects of reverberation. In this final project was carried out a dereverberation process using Blind Dereverberation system. The system is blind because the system can perform dereverberation process without knowing the information of the room transfer function. The errors of reverberated signal can be predicted by using Linear Prediction and the errors will be filtered to estimate the autoregressive parameters of the reverberated signal

From the research result, the system uses Blind Dereverberation autoregressive modeling produces the minimum average of MSE in the small room is 0,047974, using 100 ms length of window is 0,047046667, and using 0,66 reflection coefficient is 0,02272. For the minimum average of Reverberation Time the system produce 0,219492 seconds in the small room, 0,31730667 seconds using 100 ms length of window, and 0,25251 using 0,66 reflection coefficient.

Keywords: reverberation, dereverberation, blind dereverberation, autoregressive, linear prediction