

## ***ABSTRACT***

*Generally, speech is used as a mean of communication. As a form of communication delivery, speech quality is needed to avoid misinformation. One of factor that can causes degraded sound is reverberation. The final assignment will be discuss about reducing effect of human voice signal reverberation due to reflection from the sound reflector objects in acoustic room. Because of reflection, sound signal from source that is received by audience is not a real signal. Therefore, it takes an algorithm that it used to reduce the impact of reverberation. The Algorithm is the separation of signals into All-pass and Minimum-phase Component.*

*Initially, real signal will be processed to reverberation signal, which will be processed using microphone array. And then, signal from each microphone will be processed in cepstrum domain and separated into All-pass and Minimum-phase Component. Each component will be recovered with different method. Signal that has been separated will be combined again to be the complete voice signal.*

*Reducing reverberation effect via All-pass and Minimum-phase component is more effective for vocal voiced in medium room which has MSE and reverberation time is as less as other room size. In addition, effectively window length for this method is 16 ms.*

*Key word: sound signal, reverberation, All-pass Component, Minimum-phase Component*