

ABSTRACT

Automatic Speech Recognition is a Speech Signal Processing technology, where the system is recognizing, comparing, and matching its voice input pattern automatically with its data base. Although the security level of the voice recognition system is still under the security level of fingerprint-based and retina-based, but the possibility of developing the voice-based system is widely open since it has unique characteristics at the different control and the different pronunciation of every person.

Feature extraction and learning and pattern comparison process are being used in this speech recognition final project. The future extraction process done by Gabor-2D filter is used for specifying the parameters used in recognizing the voice pattern without wasting lots of memories and without lowering the precision level in a certain value. Backpropagation neuron network is being used in the learning and pattern comparison process. This process is about learning and comparing the input pattern as the result of feature extraction in order to recognize a certain pattern. Since this is a simulation system, then digital recorded voice used is only.

The output of this project is to perform a system which is able to recognize and compare a certain pattern while also able to take the right decision on each input pattern. This system has grade system about 80% to recognize, compare, and take the right decision.

STTELKOM