CHAPTER: 5 CONCLUSION AND FUTURE WORK

The most convenient way to express or to communicate is the speech. The advance research develops such machines which can mimic the human being. This motivates the automatic work using the machines. But the technology needs the speech recognition as its first step. The performance of speech recognition must be high as it has to service a large scale of applications. But up to now performance shows that people produce less error as compared to machine to recognize the speech. To bridge the performance gap several techniques has been developed. This dissertation introduces a technique to recognize the speech. The technique works well even noise is present. The proposed technique regenerates the input speech by using the harmonic regenerator wiener filter then predicts the speech by using the volterra.

The dissertation has reduced the word error rate and found the accurate voice by using the concept of volterra and wiener theory. The wiener is used as the filter to reduce the noise, i.e. to smoothen the signal and volterra is used as the predictor to predict the word. The improvement can be noticed in the speaker dependent as well as in the speaker independent system.

In future following work can be done:

1. The other filters like KALMAN filter can be used for the noise reduction.
2. Feedback mechanism can be introduced to improve the accuracy. But it can also result in extra overhead.
3. The proposed model can be analyzed for large database, i.e. for a large number of words.