

## 5. Conclusion and future work

According to the experiments of speed and recognition rate, the whole process is speed up about 4.68 times and the recognition rate only drops about 3%, which is still within the tolerance.

The reason that cause the recognition rate drops could be due to the error derived in FFT step. To diminish this error, we could adopt the scaling method and this could be viewed as the future work.

There is also another way to improve the recognition rate. We have shown that the estimation of parameters is important. Therefore, a method which could automatically estimate all parameters to achieve the best performance should be important future work to improve the system.

