CHAPTER 6

RECOMMENDATION

For future research, the first suggestion is about the upgrading of the Empirical Mode Decomposition (EMD) algorithm in Hilbert Huang Transform (HHT). For faster EMD calculation, the use of cubic spline interpolation in EMD process should be changed to a faster maxima point detection calculation. For every maximum point detection could be detected right after the previous maxima point detection. The improved EMD is called Bidimensional Empirical Mode Decomposition (BEMD). BEMD method has been discussed and proven better performance (Christopher, 2005) than original EMD developed by (Huang et al., 1996). BEMD used Delaunay triangulation and then cubic interpolation on triangles and replaced the stopping criterion used to define IMFs (Huang et al., 1996) by a fixed number of iterations in the sifting process.

For a real analyzing and testing environment, suggested that the algorithms is applied or embedded in Field Programmable Gate Array (FPGA) hardware. From that future implementation, a real time testing that could give actual result can be achieved.