

## ABSTRACT

Now, there are many advantages that can be used by using computers in many sectors, not only for telecommunication but has developed in health sector through biomedical instruments and one of them is *Electrocardiogram*.

This project especially discuss about distortion/noise in Electrocardiogram output signal and how to remove or reduce them so that the data will be read accurately and give the common output signal electrocardiogram heart beat because if there are mistakes in medical patient data, the diagnosis will get worst and surely those are serious problems and bad effect in medical environment world. To solve these solutions, *Least Mean Square* Adaptive Filter is used to surpass the noise so that it get the signal which have low level noise.

*Baseline wandering* is one of these noise that be testing in this project with using Adaptive Filter Least Mean Square algorithm. This output signal data has similarity with the origin of signal electrocardiogram better than before and it can be more to diagnosis.

Keywords: *Baseline wandering, Adaptive Filter, Heart beat*