ABSTRACTION

As a main controller of all activities happened in human body, brain becomes an important organ for human. Researchers are believe that a good understanding of human brain will bring a good understanding of human body. One of the methods that can be used to understand the function and characteristic of human brain is by learning the signal those are transmitted by the brain. It is known that brain is transmitting a weak signal named Electroencephlaograph (EEG). EEG signal is *a complex signal because it is a resultan signal from all activities those were happened during the recording time. That is why extraction is needed to be done. This thesis will discuss about the extraction process of* EEG signals those are triggered by the *left and right hand movement using the Independent Component Analysis* (ICA). *The result of the extraction process in frontal lobe – primary motor cortex area using parameters: motor cortex side of brain, deflation approach, tanh linearity, extraction parameter 3/4 and on stabilization is able to detect the motoric hand activities by accuracy* 95%.