

Brainwave balancing with horizontal rotation

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UiTM researchers are studying the effectiveness of Horizontal Rotation (HR) for brainwave balancing. Initial results show brainwaves were more synchronized after five sessions of HR

The area of enhancing the human potential and well-being indicates that there is an increasing need to ensure that life is always in balance in order to be happy and healthy. Previous studies have indicated either directly or indirectly, a balanced life begins with a balanced mind or thinking that relates directly to the brain.

Researchers from the Faculty of Electrical Engineering, UITM carried out a study to attempt to evaluate the effectiveness of Horizontal Rotation (HR) for brainwave balancing by analysing electroencephalogram (EEG) signals using Independent Component Analysis coupled with intelligent signal processing methods.

Currently, many methods and devices are available in the market to promote brainwave balancing, for instance auditory and visual techniques called binaural beats and dream machine uses sound and colours to balance the [brainwaves](#).

However, the technique of using controlled movement or rotation with the adoption of proper procedures have not been found. The purpose of this research is to determine whether a new method called HR could balance the brainwave.

Brainwave signals are recorded using (EEG) before and after

participants undergo HR treatment in a controlled environment. The brainwave signals are then stored in a computer for offline analysis. Paired T-test and correlation analysis was used to analyze the EEG signal.

The results from this experiment presented evidence that brainwaves were more synchronized after five sessions of HR. Paired T-test successfully shows that the correlation values after HR increases for all the frequency bands with highest increment for the Delta Band.

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