Analyis Results of EEG Dataset

RSE 2024 Group L

June 28, 2024

1 Dataset

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1.1 A subsection

Also some crazy characters: $\$\&\#\{\}$

2 spectrum Section

In the context of EEG (Electroencephalography), the term "spectrum" refers to the frequency spectrum of brainwave activity. EEG measures the electrical activity of the brain using electrodes placed on the scalp. The brainwave activity consists of different frequencies, which can be categorized into different bands or ranges. The spectrum in EEG represents the distribution of these frequencies across the different bands. The most commonly recognized frequency bands in EEG are: Delta (0.5 - 4 Hz): Delta waves are associated with deep sleep and unconsciousness. Theta (4 - 8 Hz): Theta waves are often observed during relaxation, meditation, and light sleep. They are also associated with creativity and daydreaming. Alpha (8 - 13 Hz): Alpha waves are prominent when a person is awake but relaxed, with closed eyes. They are associated with a calm and relaxed mental state. Beta (13 - 30 Hz): Beta waves are present when a person is awake and engaged in mental activity, such as problem-solving, decision-making, or focused attention. Gamma (30 - 100 Hz): Gamma waves are the fastest brainwave frequency and are associated with high-level cognitive processing, perception, and consciousness. The spectrum in EEG analysis provides valuable information about the brain's activity and can be used to study various cognitive processes, sleep patterns, and neurological disorders. By analyzing the spectrum, researchers and clinicians can gain insights into brain function and identify abnormalities or patterns related to specific conditions. It's important to note that the specific frequency ranges and their interpretations may vary slightly depending on the research or clinical context.



Figure 1: Image: spectrum

3 topology Section

Some topoology description]



Figure 2: Image: topology

4 statistical Section

Some statistical description



Figure 3: Image: statistical