13. The method according to claim 10, wherein the frequency bands include 1-15 Hz, 16-50 Hz, 51-100 Hz, 101-200 Hz, and 201-500 Hz.

14. The method according to claim 1, wherein the amplitude of each frequency component is obtained by taking a square root of power for the respective frequency component.

15. The method according to claim 1, further comprising receiving the EEG signal from electrodes placed at the C3 and C4 locations.

16. The method according to claim 1, further comprising providing a notification when the Index is less than a threshold.

17. The method according to claim 16, wherein the threshold is equal to 1.

18. The method according to claim 16, wherein the threshold is equal to 0.8.

19. A method for determining an index representative of the level of alertness/drowsiness of an individual comprising:

receiving an EEG signal from at least one electrode,

transforming the EEG signal into the frequency domain using a processor,

summing all of the amplitudes for each frequency band using the processor,

determining a total amplitude for all frequency bands using the processor,

determining the ratio of each frequency band to the total amplitude for at least the lowest and highest frequency band using the processor,

determining the index of the highest frequency band ratio to the lowest frequency band ratio using the processor, and

providing the index using the processor; and

wherein the highest frequency band begins above 60 Hz and has an end point that is less than or equal to 500 Hz.

20. The method according to claim 19, further comprising eliminating any sample whose total amplitude exceeds a mean total amplitude plus 2 standard deviations using the processor,

where mean total amplitude is calculated from an initial sampling period for the EEG.

21. The method according to claim 19, further comprising filtering out the power line frequency and its harmonics using at least one of the processor and at least one filter.

22. The method according to claim 19, wherein the highest frequency band is 201-500 Hz.

23. The method according to claim 19, wherein the lowest frequency band is 1-15 Hz.

24. The method according to claim 19, wherein the lowest frequency band is 1-20 Hz.

25. The method according to claim 19, wherein the amplitude of each frequency component is obtained by taking a square root of power for the respective frequency component.

26. The method according to claim 19, wherein at least one electrode includes one electrode placed at the C3 location and a second electrode placed at the C4 location.

27. A system comprising:

means for transforming an EEG signal to the frequency domain with a Discrete Fourier Transform,

means for obtaining the amplitude of each frequency component,

means for summing all of the amplitudes of each frequency component to obtain a total amplitude,

means for summing all of the amplitudes of frequencies in the range of 201-500 Hz to obtain a high frequency amplitude,

means for summing all of the amplitudes of frequencies in the range of 1 to at least 15 Hz to obtain a low frequency amplitude, and

means for calculating an Index based on the total amplitude, the high frequency amplitude, and the low frequency amplitude.

28. A system for providing an index for an individual using at least one EEG signal, said system comprising:

a Discrete Fourier transformer;

a low frequency path connected to an output of said Discrete Fourier transformer, said low frequency path includes

a low bandpass filter covering the low frequency band, and

a low frequency summation device connected to said low bandpass filter;

a high frequency path connected to an output of said Discrete Fourier transformer, said high frequency path includes

a high bandpass filter covering the high frequency band, and

a high frequency summation device connected to said high bandpass filter; and

a divider connect to said low frequency summation device and said high frequency summation device, said divider outputs a ratio of the output of said high frequency summation device to the output of said low frequency summation device.

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