



## **A COMPARATIVE ANALYSIS OF EPILEPTIC EEG SIGNALS**

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### **ABSTRACT**

Epilepsy is a perilous neurological disease covering about 4-5% of total population of the world. Its main characteristics are seizures which occur due to certain disturbance in brain function. During epileptic seizures the patient is unaware of their physical as well as mental condition and hence physical injury may occur. Proper health care must be provided to the patients and this can be achieved only if the seizures are detected correctly in time. In this paper, a system is designed using wavelet decomposition method and different training algorithms to train the neural network for classification of the EEG signals. The results showed that when Levenberg-Marquardt training algorithm was used the accuracy comes out to be 93.9%, which is better than other training algorithms.

**KEYWORDS:** Electroencephalogram, Epilepsy, Wavelet Transform, Energy Distribution, Neural Network