ABSTRACT

In its development, the EEG signals are used in various fields in medicine and science. In previous studies have been done on EEG Signal Classification Eye State, but the method used is still considered optimal because the average accuracy of the firgures show that less than maximum. The new method is proposed with a view to finding a solution better than previous methods in terms of average accuracy, by using a combination of classification method Neural Networks and Genetic Algorithms.

Neural Network is used as a method of Artificial Intelligence for the Classification of EEG Signals Eye State, while the Genetic Algorithm is used for parameter optimization Neural Network as the number of hidden layer and the learning rate so that the resulting accuracy could have been better. In this study, the cllasification of EEG data is used to determine the object in a state of open or cloased eye called Eye State. The EEG signal obtained from the data in the form of figures and then the data was processed using a genetic algorithm that will be used to determined wheter the eye of an object in the open or closed state.

From the research I did get the best accuracy is 70.612% by changing the parameter of the number of Neuron Hidden.

Keywords: EEG, Eye State, Genetic Algorithm, Neural Network, Neuron Hidden.