

Abstract

There are still many Indonesian people who do not pay attention to the importance of conducting medical checkups to pay attention to their health and the lack of distribution of medical devices, causing delays in action to treat patients so that many people die. Therefore, this study was conducted to design a human health status classification device, using variables that influence human health, namely ekg obtained from the heart, and eeg obtained from brain responses. To obtain optimal results, a DNN model was added that was trained using a dataset that had been validated by doctors and experts. The data to be recorded for ekg with fs 250, and for eeg with fs 500 which was taken for 1 minute. DNN data training was carried out using sequential, with the RMSprop optimizer which produced 97% accuracy and for eeg with 98% accuracy which was pre-processed using RobustScaler. The use of DNN in this classification is quite good with pre-processing only data normalization, but in data handling, it needs to be considered intensively, where data cutting must pay attention to the FS of the data, so it needs to be ensured for the same data size, and a lot of data between sick and healthy is also 1: 1. And in further research, it can add new training data taken from this tool.

Keywords: *Deep Neural Network, EKG, EEG, Medical Check Up, Health*