

Monitoring Pada *Lower Limb* Untuk Menganalisis *Walk Intention* Menggunakan *EEG* dan *EMG*

Guntur Fatmawan Widodo¹, Dr. Bayu Erfianto, S.Si., M.Sc², Dr. Maman Abdurohman, S.T., M.T³

^{1,2,3}Fakultas Informatika, Universitas Telkom, Bandung
¹gunturrf@students.telkomuniversity.ac.id, ²erfianto@telkomuniversity.ac.id,
³abdurohman@telkomuniversity.ac.id

Abstrak

One effort to improve the quality of life of stroke patients, especially in the walk intention process is through rehabilitation. To analyze the walk intention requires accurate data. To solve this problem, this thesis research develops a system to analyze walk intention in post-stroke patients using EEG and EMG modules. This system takes data from the signals generated by the EEG in the form of beta signals which will then be analyzed to determine the activity in the brain using Neurosky Mindwave, and the EMG signal takes data for muscle strength with Muscle Sensor v3. Therefore, in this study used the Cross Correlation Normalization method by comparing reference data and testing data to determine the level of comparison between the two signals. In this study the results of normal EEG were 0.70213 and normal EMG was 0.76024, whereas for abnormal EEGs it was 0.46334 and for EMGs it was 0.44852.

Kata kunci : *Walk Intention, EEG, EMG*

Abstract