

## **Abstract**

**Gait disorder does not always originate from damage of the brain tissue system, in some cases the occurrence of gait disorder comes from damage to motor muscle tissue in a part of the body. Brain wave monitoring and response from parts of the body can determine where there is damage to the body's system, thus creating the phenomenon of gait disorder. In this final project, we will analyze data from beta waves (signal  $\beta$ ) obtained from Electroencephalography (EEG) sensors. Furthermore, we can see the relationship with the results of gait tracking processing using the sensor Microelectromechanical systems Inertia Measurement Unit (MEMS IMU) so that it can determine where there is damage to body tissue which causes gait disorder.**

**Keywords: gait activity, IMU, EEG**