GRABMyo EMG Hand Gesture Dataset

By ***IEEE Dataport*** & ***Physionet***

* Using IEEE dataset

**Description of Dataset:**

* The database consists of 43 participants, three sessions in three separate days.
* 17 gestures
* 7 repetitions
* Main File as: Session1\_Participant1 has 7 x 17 Data.
* Further which has data from {1,1} to {7,17}
* sEMG recordings are 5 seconds.
* Data is Collected from 28 channels. (16 forearm and 12 wrist)
* Data is Sampled at 2048Hz.
* The. mat files allow data to be organized as cells where multiple gestures and repetitions from a single session can be presented together.
* **S1P1E1G1…. S1P1E2G1….S1P1E7G17**

% Load your data

load('session1\_participant1.mat');

% Define the components for the variable name

session\_name = 'Session1';

participant\_name = 'Participant1';

experiment\_name = 'Experiment1';

% Define the output directory

output\_directory = 'D:\BCE\FYP\Dataset\IEEE 1\Data\_Transformed'; % Replace with the actual path

% Loop through all cells in your data matrix

for session = 1:size(DATA, 1)

for participant = 1:size(DATA, 2)

for experiment = 1:7 % Assuming you have 7 experiments

for gesture = 1:17 % Assuming you have 17 gestures

% Access the data within the current cell

emg\_data = DATA{session, participant};

% Create the variable name

variable\_name = sprintf('%s\_%s\_%s\_Experiment%d\_Gesture%d', ...

session\_name, participant\_name, experiment\_name, experiment, gesture);

% Create the full file path for the CSV file

output\_file\_path = fullfile(output\_directory, [variable\_name, '.csv']);

% Save the data as a CSV file

writematrix(emg\_data, output\_file\_path);

% Display a message indicating the successful save

fprintf('Data saved to %s\n', output\_file\_path);

end

end

end

end

