**Data Description for EEG Steady-State Visual Evoked Potential Signals dataset (Assignment 1D)**

There are 5 different tests performed on 30 subjects: SB1 - Five Box Visual Test 1, SB2 - Five Box Visual Test 2, SB3 - Five Box Visual Test 3 (There are three different Five Box tests, these are not repetitions of the same test), SV1 - Visual Image Search, SM1 - Motor Images (Hand Shake Experiment).

Attribute information: In this dataset, the tests are visual experiments. The time series .csv files contain 16 attributes, of which the last 14 are the signals coming from the electrodes. The first two are the time-domain and a signal called ‘interpolated’ which is normally 0. Each file represents a test performed on a particular subject. Each subject undergoes different tests which are provided in .csv format as follows: suppose you have a .csv whose name is A001SB1\_1 This means the data corresponds to group A (only Group A is provided at present), subject 001, Test SB1 (Five Box Visual Test), and first experiment (\_1).

Note: Not all experiments have been performed on all subjects. Signal Database.xlsx contains the detailed description.

Training and test data set preparation for the assignment :

These are the required values to be computed before proceeding for the experimentation. For each CSV file of a subject’s EEG data corresponding to an experiment, you create a 14 dimensional data point, where 14 dimensions correspond to variances of EEG time series data of 14 electrodes, followed by the label of the experiment (to be parsed from the file name as described above).

For example, from A001SB1\_1.csv you compute variances of time series data corresponding to columns from C to P (they are respectively sampled EEG signals from the electrodes AF3, F7, F3, FC5, T7, P7, O1, O2, P8, T8, FC6, F4, F8, and AF4). This would provide 14 dimensional input data point. The output label for them is “SB1”, which you should also store along with the input data point.

Store all these data points as training (and test) examples in a data file. Use this data file for experimentations and processing required for doing the assignment.