

After downloading the project, first keep all unzipped data folders inside a directory/folder named as “inDir”

Next, place the inDir along with all data folders inside a directory that **Dir** global variable will point to
Now, execute the sequence of following programs with proper parameter configuration.

SBA_SPC()

First of all 5 global variables need to configure

1. **Dir** %% Main data directory
2. **subjList** %% list of subject IDs
3. **Tmax Tmin Dmax** %% clustering parameters, Tmin and Tmax in minutes, Dmax in meters

Next, it is need to execute the following function,

combine_sps_using_sleep_battery_info(): performs cluster merging operation on unlabelled data using battery charging and sleep sessions.

AA_SPC()

First of all 5 global variables need to configure

1. **Dir** %% Main data directory
2. **subjList** %% list of subject IDs
3. **Tmax Tmin Dmax** %% clustering parameters, Tmin and Tmax in minutes, Dmax in meters

Next, it is needed to select one of the two following functions depending on requirement

1. **op==1** to execute **evaluating_activity_assisted_spc_netHealth()** in order to perform cluster merging operation on unlabelled data using activity (step count) data.
2. **op==anything else** to execute **validating_activity_assisted_spc_netHealth()** in order to perform validation of cluster merging operation using activity (step count) data. For this validation, labelled data are used.

Each of this functions also include analysis and graph generation codes at the bottom.

SBAA_SPC()

First of all 5 global variables need to configure

1. **Dir** %% Main data directory
2. **subjList** %% list of subject IDs
3. **Tmax Tmin Dmax** %% clustering parameters, Tmin and Tmax in minutes, Dmax in meters

Next, it is needed to select one of the three following options depending on requirement

1. **op==1** to execute **getOnCampus_clusters()** in order to perform fetch and store onCampus clusters.
2. **op==2** to execute **combine_sbspc_nd_aaspc()** in order to perform cluster merging operation using activity (step count) data in addition to battery charging and sleep sessions.
3. **op==anything else** to compare the five clustering approaches

Note: more details can be found in IEEE Transactions on Big Data manuscript.