**CodeBook**

Abstract : description of the dataset “tidy.txt” built from Human Activity Recognition database built from the recordings of 30 subjects performing activities of daily living (ADL) while carrying a waist-mounted smartphone with embedded inertial sensors.

**Subjects :**

ID of the subjects/persons tested, from 1 to 30.

**Activities:**

1 WALKING : the subject is walking

2 WALKING\_UPSTAIRS : the subject is climbing stairs

3 WALKING\_DOWNSTAIRS : the subject is descending stairs

4 SITTING : the subject is seated

5 STANDING : the subject is standing

6 LAYING : the subject is laying

**Measures :**

tBodyAcc-XYZ

tGravityAcc-XYZ

tBodyAccJerk-XYZ

tBodyGyro-XYZ

tBodyGyroJerk-XYZ

tBodyAccMag

tGravityAccMag

tBodyAccJerkMag

tBodyGyroMag

tBodyGyroJerkMag

fBodyAcc-XYZ

fBodyAccJerk-XYZ

fBodyGyro-XYZ

fBodyAccMag

fBodyAccJerkMag

fBodyGyroMag

fBodyGyroJerkMag

**Variables in the code :**

accelero.Xtrain : dataset “X\_train.txt”

accelero.Ytrain : dataset “Y\_train.txt”

subject.train : dataset "subject\_train.txt"

accelero.Xtest : dataset "X\_test.txt"

accelero.Ytest : dataset "Y\_test.txt"

subject.test : dataset "subject\_test.txt" (contains all the ID of the subjects)

activity.labels : dataset "activity\_labels.txt" (contains all the activities)

features : dataset “features.txt” (contains all the features)

accelero.Xtrain (the second one) : only the measurements on the mean and standard deviation for each measurement of Xtrain

accelero.Xtest (the second one) : only the measurements on the mean and standard deviation for each measurement of Xest

data.train : merger of subject, acceleroYtrain nd accelero.Xtrain.

data.test : merger of subject, acceleroYtest and accelero.Xtest.

final.dataset : merger of data.train and data.test

final.dataset (second one) : tidy dataset with the average of each variable for each activity and each subject