**DATA DICTIONARY - Human Activity Recognition Using Smartphones Dataset**

**activity** *Factor*

Activity Label

WALKING

WALKING\_UPSTAIRS

WALKING\_DOWNSTAIRS

SITTING

STANDING

LAYING

**subject\_train** *int*

An identifier of the subject who carried out the experiment. 30 volunteers within an age

bracket of 19-48 years wearing a smartphone (Samsung Galaxy S II) on the waist

1..30

**TimeBodyAcceleration.mean...X** *num*

Average of mean value of time domain estimated body acceleration signal in the X

direction

normalized and bounded within [-1,1]

**TimeBodyAcceleration.mean...Y** *num*

Average of Mean value of time domain estimated body acceleration signal in the Y

direction

normalized and bounded within [-1,1]

**TimeBodyAcceleration.mean...Z** *num*

Average of Mean value of time domain estimated body acceleration signal in the Z

direction

normalized and bounded within [-1,1]

**TimeBodyAcceleration.std...X** *num*

Average of Standard deviation of time domain estimated body acceleration signal in the X direction

normalized and bounded within [-1,1]

**TimeBodyAcceleration.std...Y** *num*

Average of Standard deviation of time domain estimated body acceleration signal in the Y direction

normalized and bounded within [-1,1]

**TimeBodyAcceleration.std...Z** *num*

Average of Standard deviation of time domain estimated body acceleration signal in the Z direction

normalized and bounded within [-1,1]

**TimeGravityAcceleration.mean...X** *num*

Average of mean value of time domain gravity acceleration signal in the X

direction

normalized and bounded within [-1,1]

**TimeGravityAcceleration.mean...Y** *num*

Average of Mean value of time domain gravity acceleration signal in the Y

direction

normalized and bounded within [-1,1]

**TimeGravityAcceleration.mean...Z** *num*

Average of Mean value of time domain gravity acceleration signal in the Z

direction

normalized and bounded within [-1,1]

**TimeGravityAcceleration.std...X** *num*

Average of Standard deviation of time domain gravity acceleration signal in the X direction

normalized and bounded within [-1,1]

**TimeGravityAcceleration.std...Y** *num*

Average of Standard deviation of time domain gravity acceleration signal in the Y direction

normalized and bounded within [-1,1]

**TimeGravityAcceleration.std...Z** *num*

Average of Standard deviation of time domain gravity acceleration signal in the Z direction

normalized and bounded within [-1,1]

**TimeBodyAccelerationJerk.mean...X** *num*

Average of mean value of time domain estimated body acceleration Jerk signal in the X

direction

normalized and bounded within [-1,1]

**TimeBodyAccelerationJerk.mean...Y** *num*

Average of Mean value of time domain estimated body acceleration Jerk signal in the Y

direction

normalized and bounded within [-1,1]

**TimeBodyAccelerationJerk.mean...Z** *num*

Average of Mean value of time domain estimated body acceleration Jerk signal in the Z

direction

normalized and bounded within [-1,1]

**TimeBodyAccelerationJerk.std...X** *num*

Average of Standard deviation of time domain estimated body acceleration Jerk signal in the X direction

normalized and bounded within [-1,1]

**TimeBodyAccelerationJerk.std...Y** *num*

Average of Standard deviation of time domain estimated body acceleration Jerk signal in the Y direction

normalized and bounded within [-1,1]

**TimeBodyAccelerationJerk.std...Z** *num*

Average of Standard deviation of time domain estimated body acceleration Jerk signal in the Z direction

normalized and bounded within [-1,1]

**TimeBodyAngularVelocity.mean...X** *num*

Average of mean value of time domain estimated body angular velocity signal in the X

direction

normalized and bounded within [-1,1]

**TimeBodyAngularVelocity.mean...Y** *num*

Average of Mean value of time domain estimated body angular velocity signal in the Y

direction

normalized and bounded within [-1,1]

**TimeBodyAngularVelocity.mean...Z** *num*

Average of Mean value of time domain estimated body angular velocity signal in the Z

direction

normalized and bounded within [-1,1]

**TimeBodyAngularVelocity.std...X** *num*

Average of Standard deviation of time domain estimated body angular velocity signal in the X direction

normalized and bounded within [-1,1]

**TimeBodyAngularVelocity.std...Y** *num*

Average of Standard deviation of time domain estimated body angular velocity signal in the Y direction

normalized and bounded within [-1,1]

**TimeBodyAngularVelocity.std...Z** *num*

Average of Standard deviation of time domain estimated body angular velocity signal in the Z direction

normalized and bounded within [-1,1]

**TimeBodyAngularVelocityJerkmean...X** *num*

Average of mean value of time domain estimated body angular velocity Jerk signal in the X

direction

normalized and bounded within [-1,1]

**TimeBodyAngularVelocityJerk.mean...Y** *num*

Average of Mean value of time domain estimated body angular velocity Jerk signal in the Y

direction

normalized and bounded within [-1,1]

**TimeBodyAngularVelocityJerk.mean...Z** *num*

Average of Mean value of time domain estimated body angular velocity Jerk signal in the Z

direction

normalized and bounded within [-1,1]

**TimeBodyAngularVelocityJerk.std...X** *num*

Average of Standard deviation of time domain estimated body angular velocity Jerk signal in the X direction

normalized and bounded within [-1,1]

**TimeBodyAngularVelocityJerk.std...Y** *num*

Average of Standard deviation of time domain estimated body angular velocity Jerk signal in the Y direction

normalized and bounded within [-1,1]

**TimeBodyAngularVelocityJerk.std...Z** *num*

Average of Standard deviation of time domain estimated body angular velocity Jerk signal in the Z direction

normalized and bounded within [-1,1]

**TimeBodyAccelerationMag.mean..** *num*

Average of mean value of time domain estimated body acceleration magnitude (calculated using the Euclidean norm)

normalized and bounded within [-1,1]

**TimeBodyAccelerationMag.std..** *num*

Average of Standard deviation of time domain estimated body acceleration magnitude (calculated using the Euclidean norm)

normalized and bounded within [-1,1]

**TimeGravityAccelerationMag.mean..** *num*

Average of mean value of time domain gravity acceleration magnitude (calculated using the Euclidean norm)

normalized and bounded within [-1,1]

**TimeGravityAccelerationMag.std..** *num*

Average of Standard deviation of time domain gravity acceleration magnitude (calculated using the Euclidean norm)

normalized and bounded within [-1,1]

**TimeBodyAccelerationJerkMag.mean..**  *num*

Average of Mean value of time domain estimated body acceleration Jerk magnitude (calculated using the Euclidean norm)

normalized and bounded within [-1,1]

**TimeBodyAccelerationJerkMag.std..** *num*

Average of Standard deviation of time domain estimated body acceleration Jerk magnitude (calculated using the Euclidean norm)

normalized and bounded within [-1,1]

**TimeBodyAngularVelocityMag.mean..**  *num*

Average of Mean value of time domain estimated body angular velocity magnitude (calculated using the Euclidean norm)

normalized and bounded within [-1,1]

**TimeBodyAngularVelocityMag.std..** *num*

Average of Standard deviation of time domain estimated body angular velocity magnitude (calculated using the Euclidean norm)

normalized and bounded within [-1,1]

**TimeBodyAngularVelocityJerkMag.mean..**  *num*

Average of Mean value of time domain estimated body angular velocity Jerk magnitude (calculated using the Euclidean norm)

normalized and bounded within [-1,1]

**TimeBodyAngularVelocityJerkMag.std..** *num*

Average of Standard deviation of time domain estimated body angular velocity Jerk magnitude (calculated using the Euclidean norm)

normalized and bounded within [-1,1]

**FrequencyBodyAcceleration.mean...X** *num*

Average of mean value of frequency domain estimated body acceleration signal in the X

direction

normalized and bounded within [-1,1]

**FrequencyBodyAcceleration.mean...Y** *num*

Average of Mean value of frequency domain estimated body acceleration signal in the Y

direction

normalized and bounded within [-1,1]

**FrequencyBodyAcceleration.mean...Z** *num*

Average of Mean value of frequency domain estimated body acceleration signal in the Z

direction

normalized and bounded within [-1,1]

**FrequencyBodyAcceleration.std...X** *num*

Average of Standard deviation of frequency domain estimated body acceleration signal in the X direction

normalized and bounded within [-1,1]

**FrequencyBodyAcceleration.std...Y** *num*

Average of Standard deviation of frequency domain estimated body acceleration signal in the Y direction

normalized and bounded within [-1,1]

**FrequencyBodyAcceleration.std...Z** *num*

Average of Standard deviation of frequency domain estimated body acceleration signal in the Z direction

normalized and bounded within [-1,1]

**FrequencyBodyAccelerationJerk.mean...X** *num*

Average of mean value of frequency domain estimated body acceleration Jerk signal in the X

direction

normalized and bounded within [-1,1]

**FrequencyBodyAccelerationJerk.mean...Y** *num*

Average of Mean value of frequency domain estimated body acceleration Jerk signal in the Y

direction

normalized and bounded within [-1,1]

**FrequencyBodyAccelerationJerk.mean...Z** *num*

Average of Mean value of frequency domain estimated body acceleration Jerk signal in the Z

direction

normalized and bounded within [-1,1]

**FrequencyBodyAccelerationJerk.std...X** *num*

Average of Standard deviation of frequency domain estimated body acceleration Jerk signal in the X direction

normalized and bounded within [-1,1]

**FrequencyBodyAccelerationJerk.std...Y** *num*

Average of Standard deviation of frequency domain estimated body acceleration Jerk signal in the Y direction

normalized and bounded within [-1,1]

**FrequencyBodyAccelerationJerk.std...Z** *num*

Average of Standard deviation of frequency domain estimated body acceleration Jerk signal in the Z direction

normalized and bounded within [-1,1]

**FrequencyBodyAngularVelocity.mean...X** *num*

Average of mean value of frequency domain estimated body angular velocity signal in the X

direction

normalized and bounded within [-1,1]

**FrequencyBodyAngularVelocity.mean...Y** *num*

Average of Mean value of frequency domain estimated body angular velocity signal in the Y

direction

normalized and bounded within [-1,1]

**FrequencyBodyAngularVelocity.mean...Z** *num*

Average of Mean value of frequency domain estimated body angular velocity signal in the Z

direction

normalized and bounded within [-1,1]

**FrequencyBodyAngularVelocity.std...X** *num*

Average of Standard deviation of frequency domain estimated body angular velocity signal in the X direction

normalized and bounded within [-1,1]

**FrequencyBodyAngularVelocity.std...Y** *num*

Average of Standard deviation of frequency domain estimated body angular velocity signal in the Y direction

normalized and bounded within [-1,1]

**FrequencyBodyAngularVelocity.std...Z** *num*

Average of Standard deviation of frequency domain estimated body angular velocity signal in the Z direction

normalized and bounded within [-1,1]

**FrequencyBodyAccelerationMag.mean..** *num*

Average of mean value of frequency domain estimated body acceleration magnitude (calculated using the Euclidean norm)

normalized and bounded within [-1,1]

**FrequencyBodyAccelerationMag.std..** *num*

Average of Standard deviation of frequency domain estimated body acceleration magnitude (calculated using the Euclidean norm)

normalized and bounded within [-1,1]

**FrequencyBodyAccelerationJerkMag.mean..**  *num*

Average of Mean value of frequency domain estimated body acceleration Jerk magnitude (calculated using the Euclidean norm)

normalized and bounded within [-1,1]

**FrequencyBodyAccelerationJerkMag.std..** *num*

Average of Standard deviation of frequency domain estimated body acceleration Jerk magnitude (calculated using the Euclidean norm)

normalized and bounded within [-1,1]

**FrequencyBodyAngularVelocityMag.mean..**  *num*

Average of Mean value of time frequency estimated body angular velocity magnitude (calculated using the Euclidean norm)

normalized and bounded within [-1,1]

**FrequencyBodyAngularVelocityMag.std..** *num*

Average of Standard deviation of frequency domain estimated body angular velocity magnitude (calculated using the Euclidean norm)

normalized and bounded within [-1,1]

**FrequencyBodyAngularVelocityJerkMag.mean..**  *num*

Average of Mean value of time frequency estimated body angular velocity Jerk magnitude (calculated using the Euclidean norm)

normalized and bounded within [-1,1]

**FrequencyBodyAngularVelocityJerkMag.std..** *num*

Average of Standard deviation of frequency domain estimated body angular velocity Jerk magnitude (calculated using the Euclidean norm)

normalized and bounded within [-1,1]