Data Dictionary

Type: column separated, blank space separator

```
Columns subjectId
```

d integer subject identifier

1 to 30

activityId

integer

activity identifier

1 to 6

- 1.WALKING
- 2.WALKING_UPSTAIRS
- 3 .WALKING_DOWNSTAIRS
- 4 .SITTING
- 5 .STANDING
- 6.LAYING

activityName text

activity name

WALKING

WALKING UPSTAIRS

WALKING_DOWNSTAIRS

SITTING

STANDING

LAYING

Measurement columns

• All measures are normalized and bounded within [-1,1]

Column definitions:

- TimeSignal: accelerometer and gyroscope signal
- FrequencySignal: Fast Fourier Transform applied to the signal
- Body
 - o Body signal (total signal minus gravitation)
- Gravity
 - o Gravitation signal
- Acceleration:
 - Acceleration
 - O Units: m/s2
- AngularVelocity:
 - Angular Velocity
 - o Units: radian/s
- Jerk
- Derived of acceleration or angular velocity
- Mag:
 - Magnitude of the X,Y,Z vector
- X,Y,Z
 - Represents the 3 dimensional space coordinate
- meanFrequency
 - o Weighted average of the frequency components to obtain a mean frequency

```
TimeSignal BodyAcceleration mean X
TimeSignal BodyAcceleration mean Y
TimeSignal BodyAcceleration mean Z
TimeSignal BodyAcceleration standardDeviation X
TimeSignal BodyAcceleration standardDeviation Y
TimeSignal BodyAcceleration standardDeviation Z
TimeSignal GravityAcceleration mean X
TimeSignal GravityAcceleration mean Y
TimeSignal GravityAcceleration mean Z
TimeSignal GravityAcceleration standardDeviation X
TimeSignal GravityAcceleration standardDeviation Y
TimeSignal GravityAcceleration standardDeviation Z
TimeSignal_BodyAccelerationJerk_mean_X
TimeSignal BodyAccelerationJerk mean Y
TimeSignal_BodyAccelerationJerk_mean_Z
TimeSignal_BodyAccelerationJerk_standardDeviation_X
TimeSignal BodyAccelerationJerk standardDeviation Y
TimeSignal BodyAccelerationJerk standardDeviation Z
TimeSignal BodyAngularVelocity mean X
TimeSignal BodyAngularVelocity mean Y
TimeSignal_BodyAngularVelocity_mean_Z
TimeSignal_BodyAngularVelocity_standardDeviation_X
TimeSignal BodyAngularVelocity standardDeviation Y
TimeSignal BodyAngularVelocity standardDeviation Z
TimeSignal_BodyAngularVelocityJerk_mean_X
TimeSignal_BodyAngularVelocityJerk_mean_Y
TimeSignal BodyAngularVelocityJerk mean Z
TimeSignal BodyAngularVelocityJerk standardDeviation X
TimeSignal BodyAngularVelocityJerk standardDeviation Y
TimeSignal BodyAngularVelocityJerk standardDeviation Z
TimeSignal BodyAccelerationMagnitude mean
TimeSignal BodyAccelerationMagnitude standardDeviation
TimeSignal GravityAccelerationMagnitude mean
Time Signal\_Gravity Acceleration Magnitude\_standard Deviation
TimeSignal BodyAccelerationJerkMagnitude mean
TimeSignal BodyAccelerationJerkMagnitude standardDeviation
TimeSignal_BodyAngularVelocityMagnitude_mean
TimeSignal BodyAngularVelocityMagnitude standardDeviation
TimeSignal BodyAngularVelocityJerkMagnitude mean
TimeSignal BodyAngularVelocityJerkMagnitude standardDeviation
FrequencySignal BodyAcceleration mean X
FrequencySignal BodyAcceleration mean Y
FrequencySignal BodyAcceleration mean Z
FrequencySignal BodyAcceleration standardDeviation X
FrequencySignal BodyAcceleration standardDeviation Y
FrequencySignal_BodyAcceleration_standardDeviation_Z
FrequencySignal BodyAcceleration meanFrequency X
FrequencySignal_BodyAcceleration_meanFrequency_Y
FrequencySignal BodyAcceleration meanFrequency Z
FrequencySignal BodyAccelerationJerk mean X
FrequencySignal BodyAccelerationJerk mean Y
FrequencySignal BodyAccelerationJerk mean Z
FrequencySignal BodyAccelerationJerk standardDeviation X
FrequencySignal BodyAccelerationJerk standardDeviation Y
```

FrequencySignal_BodyAccelerationJerk_standardDeviation_Z

FrequencySignal_BodyAccelerationJerk_meanFrequency_X

FrequencySignal BodyAccelerationJerk meanFrequency Y

FrequencySignal BodyAccelerationJerk meanFrequency Z

FrequencySignal_BodyAngularVelocity_mean_X

 $Frequency Signal_Body Angular Velocity_mean_Y$

FrequencySignal BodyAngularVelocity mean Z

 $Frequency Signal_Body Angular Velocity_standard Deviation_X$

FrequencySignal BodyAngularVelocity standardDeviation Y

FrequencySignal BodyAngularVelocity standardDeviation Z

FrequencySignal BodyAngularVelocity meanFrequency X

FrequencySignal BodyAngularVelocity meanFrequency Y

FrequencySignal BodyAngularVelocity meanFrequency Z

 $Frequency Signal_Body Acceleration Magnitude_mean$

FrequencySignal BodyAccelerationMagnitude standardDeviation

FrequencySignal BodyAccelerationMagnitude meanFrequency

FrequencySignal_BodyBodyAccelerationJerkMagnitude_mean

 $Frequency Signal_Body Body Acceleration Jerk Magnitude_standard Deviation$

FrequencySignal BodyBodyAccelerationJerkMagnitude meanFrequency

FrequencySignal BodyBodyAngularVelocityMagnitude mean

FrequencySignal BodyBodyAngularVelocityMagnitude standardDeviation

FrequencySignal BodyBodyAngularVelocityMagnitude meanFrequency

 $Frequency Signal_Body Body Angular Velocity Jerk Magnitude_mean$

 $Frequency Signal_Body Body Angular Velocity Jerk Magnitude_standard Deviation$

 $Frequency Signal_Body Body Angular Velocity Jerk Magnitude_mean Frequency$