Code Book for Samsung Active Tracker Data Set

Description:

The features selected for this database come from the accelerometer and gyroscope 3-axial raw signals tAcc-XYZ and tGyro-XYZ. These time domain signals (prefix 't' to denote time) were captured at a constant rate of 50 Hz. Then they were filtered using a median filter and a 3rd order low pass Butterworth filter with a corner frequency of 20 Hz to remove noise.

Variables:

subject int

Subject denotes the subject number for that row. There are 30 subjects in this experiment

activity factor character

There are six activities that are being tracked.

1. WALKING

2. WALKING\_UPSTAIRS

3. WALKING\_DOWNSTAIRS

4. SITTING

5. STANDING

6. LAYING

group factor character

Groups the subject into test or train groups

* + - 1. Test
      2. Train

tBodyAcc.mean.(X,Y,Z) int

Average of the mean acceleration values measured on the body for (X,Y,Z)-axis

tGravityAcc.mean.(X,Y,Z) int

Average of the mean acceleration values measured through gravity for (X,Y,Z)-axis

tBodyAccJerk.mean.(X,Y,Z) int

Average of the mean jerk signal acceleration values measured through body for (X,Y,Z)-axis

tBodyGyro.mean.(X,Y,Z) int

Average of the mean gyro values measured through body for (X,Y,Z)-axis

tBodyGyroJerk.mean.(X,Y,Z) int

Average of the mean jerk signal gyro values measured through body for (X,Y,Z)-axis

tBodyAccMag.mean int

Average of the mean acceleration values using Euclidean form measured through body

tGravityAccMag.mean int

Average of the mean gravity values using Euclidean form measured through body

tBodyAccJerkMag.mean int

Average of the mean jerk signal acceleration values using Euclidean form measured through body

tBodyGyroMag.mean int

Average of the mean gyro values using Euclidean form measured through body

tBodyGyroJerkMag.mean int

Average of the mean jerk signal gyro values using Euclidean form measured through body

fBodyAcc.mean.(X,Y,Z) int

Average of the mean acceleration values measured on the body for (X,Y,Z)-axis with a Fast Fourier Transform applied

fBodyAccJerk.mean.(X,Y,Z) int

Average of the mean jerk signal acceleration values measured through body for (X,Y,Z)-axis with a Fast Fourier Transform applied

fBodyGyro.mean.(X,Y,Z) int

Average of the mean gyro values measured through body for (X,Y,Z)-axis with a Fast Fourier Transform applied

fBodyAccMag.mean int

Average of the mean acceleration values using Euclidean form measured through body with a Fast Fourier Transform applied with a Fast Fourier Transform applied

fBodyAccJerkMag.mean int

Average of the mean jerk signal acceleration values using Euclidean form measured through body with a Fast Fourier Transform applied

fBodyGyroMag.mean int

Average of the mean gyro values using Euclidean form measured through body with a Fast Fourier Transform applied

fBodyGyroJerkMag.mean int

Average of the mean jerk signal gyro values using Euclidean form measured through body with a Fast Fourier Transform applied

tBodyAcc.std.(X,Y,Z) int

Average of the standard deviation of acceleration values measured on the body for (X,Y,Z)-axis

tGravityAcc.std.(X,Y,Z) int

Average of the standard deviation of acceleration values measured through gravity for (X,Y,Z)-axis

tBodyAccJerk.std.(X,Y,Z) int

Average of the standard deviation of jerk signal acceleration values measured through body for (X,Y,Z)-axis

tBodyGyro.std.(X,Y,Z) int

Average of the standard deviation of gyro values measured through body for (X,Y,Z)-axis

tBodyGyroJerk.std.(X,Y,Z) int

Average of the standard deviation of jerk signal gyro values measured through body for (X,Y,Z)-axis

tBodyAccMag.std int

Average of the standard deviation of acceleration values using Euclidean form measured through body

tGravityAccMag.std int

Average of the standard deviation of gravity values using Euclidean form measured through body

tBodyAccJerkMag.std int

Average of the standard deviation of jerk signal acceleration values using Euclidean form measured through body

tBodyGyroMag.std int

Average of the standard deviation of gyro values using Euclidean form measured through body

tBodyGyroJerkMag.std int

Average of the standard deviation of jerk signal gyro values using Euclidean form measured through body

fBodyAcc.std.(X,Y,Z) int

Average of the standard deviation of acceleration values measured on the body for (X,Y,Z)-axis with a Fast Fourier Transform applied

fBodyAccJerk.std.(X,Y,Z) int

Average of the standard deviation of jerk signal acceleration values measured through body for (X,Y,Z)-axis with a Fast Fourier Transform applied

fBodyGyro.std.(X,Y,Z) int

Average of the standard deviation of gyro values measured through body for (X,Y,Z)-axis with a Fast Fourier Transform applied

fBodyAccMag.std int

Average of the standard deviation of acceleration values using Euclidean form measured through body with a Fast Fourier Transform applied with a Fast Fourier Transform applied

fBodyAccJerkMag.std int

Average of the standard deviation of jerk signal acceleration values using Euclidean form measured through body with a Fast Fourier Transform applied

fBodyGyroMag.std int

Average of the standard deviation of gyro values using Euclidean form measured through body with a Fast Fourier Transform applied

fBodyGyroJerkMag.std int

Average of the standard deviation of jerk signal gyro values using Euclidean form measured through body with a Fast Fourier Transform applied