getdata-009 project code book

“source” - Identifies the source of the data
Training
Test
“ActivityDesc" – Identifies the Activity
WALKING
WALKING_UPSTAIRS
WALKING_DOWNSTAIRS
SITTING
STANDING
LAYING

he body linear acceleration and angular velocity were derived in time to obtain Jerk signals (tBodyAccJerk-XYZ and tBodyGyroJerk-XYZ). Also the magnitude of these three-dimensional signals were calculated using the Euclidean norm (tBodyAccMag, tGravityAccMag, tBodyAccJerkMag, tBodyGyroMag, tBodyGyroJerkMag).
These signals were used to estimate variables of the feature vector for each pattern:
'-XYZ' is used to denote 3-axial signals in the X, Y and Z directions.

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

The set of variables that were estimated from these signals are:

mean(): Mean value
std(): Standard deviation

"tBodyAcc-mean()-X"

"tBodyAcc-mean()-Y"
"tBodyAcc-mean()-Z"
"tBodyAcc-std()-X"
"tBodyAcc-std()-Y"
"tBodyAcc-std()-Z"
"tGravityAcc-mean()-X"
"tGravityAcc-mean()-Y"
"tGravityAcc-mean()-Z"
"tGravityAcc-std()-X"
"tGravityAcc-std()-Y"
"tGravityAcc-std()-Z"
"tBodyAccJerk-mean()-X"
"tBodyAccJerk-mean()-Y"
"tBodyAccJerk-mean()-Z"
"tBodyAccJerk-std()-X"
"tBodyAccJerk-std()-Y"
"tBodyAccJerk-std()-Z"
"tBodyGyro-mean()-X"
"tBodyGyro-mean()-Y"
"tBodyGyro-mean()-Z"
"tBodyGyro-std()-X"
"tBodyGyro-std()-Y"
"tBodyGyro-std()-Z"
"tBodyGyroJerk-mean()-X"
"tBodyGyroJerk-mean()-Y"
"tBodyGyroJerk-mean()-Z"
"tBodyGyroJerk-std()-X"
"tBodyGyroJerk-std()-Y"
"tBodyGyroJerk-std()-Z"
"tBodyAccMag-mean()"
"tBodyAccMag-std()"
"tGravityAccMag-mean()"
"tGravityAccMag-std()"
"tBodyAccJerkMag-mean()"
"tBodyAccJerkMag-std()"
"tBodyGyroMag-mean()"
"tBodyGyroMag-std()"
"tBodyGyroJerkMag-mean()"
"tBodyGyroJerkMag-std()"
"fBodyAcc-mean()-X"
"fBodyAcc-mean()-Y"
"fBodyAcc-mean()-Z"
"fBodyAcc-std()-X"
"fBodyAcc-std()-Y"
"fBodyAcc-std()-Z"
"fBodyAcc-meanFreq()-X"
"fBodyAcc-meanFreq()-Y"
"fBodyAcc-meanFreq()-Z"
"fBodyAccJerk-mean()-X"

"fBodyAccJerk-mean()-Y"
"fBodyAccJerk-mean()-Z"
"fBodyAccJerk-std()-X"
"fBodyAccJerk-std()-Y"
"fBodyAccJerk-std()-Z"
"fBodyAccJerk-meanFreq()-X"
"fBodyAccJerk-meanFreq()-Y"
"fBodyAccJerk-meanFreq()-Z"
"fBodyGyro-mean()-X"
"fBodyGyro-mean()-Y"
"fBodyGyro-mean()-Z"
"fBodyGyro-std()-X"
"fBodyGyro-std()-Y"
"fBodyGyro-std()-Z"
"fBodyGyro-meanFreq()-X"
"fBodyGyro-meanFreq()-Y"
"fBodyGyro-meanFreq()-Z"
"fBodyAccMag-mean()"
"fBodyAccMag-std()"
"fBodyAccMag-meanFreq()"
"fBodyBodyAccJerkMag-mean()"
"fBodyBodyAccJerkMag-std()"
"fBodyBodyAccJerkMag-meanFreq()"
"fBodyBodyGyroMag-mean()"
"fBodyBodyGyroMag-std()"
"fBodyBodyGyroMag-meanFreq()"
"fBodyBodyGyroJerkMag-mean()"
"fBodyBodyGyroJerkMag-std()"
"fBodyBodyGyroJerkMag-meanFreq()"
"angle(tBodyAccMean,gravity)"
"angle(tBodyAccJerkMean),gravityMean)"
"angle(tBodyGyroMean,gravityMean)"
"angle(tBodyGyroJerkMean,gravityMean)"
"angle(X,gravityMean)"
"angle(Y,gravityMean)"
"angle(Z,gravityMean)"