

Table Result for Accuracy, time execution, and comparing with another methods.

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Time domain Features

Mean, Max, Min, Sd, Abs, Rms (6 features) with 4 signals (X,Y,Z, and M), total features from time domain features are 24 features.

FFT Features

FFT features is the 40 first FFT coefficient from each gait signal. In this experiment we use 4 accelerometer signals (X,Y,Z, and M) so total FFT features are 160 features.

All Features

Combine between time domain features and FFT features.

Time Domain Features

	Original	SFFS
Time Loading	0.48	0.37
Time Prediction	0.11	0.02
Accuracy	0.7614	0.8267

List Features after SFFS: "MeanX", "AbsX", "MeanY", "MinY", "MeanZ", "SdZ"

SVM Parameters: gamma = 0.5, cost = 10

FFT Features

	Original	SFFS
Time Loading	1.73	0.87
Time Prediction	0.45	0.03
Accuracy	0.4821	0.7178

List Features after SFFS: "FFT1", "FFT13", "FFT71", "FFT81", "FFT82", "FFT121"

SVM Parameters: cost=1, gamma=1

All Features

	Original	SFFS
Time Loading	2.45	0.37
Time Prediction	0.55	0.02
Accuracy	0.4155	0.8267

List Features after SFFS: "MeanX", "AbsX", "MeanY", "MinY", "MeanZ", "SdZ"

SVM Parameters: gamma = 0.5, cost = 10

Naïve Bayes and Random Forest

These tables show the comparison of time loading, time prediction and accuracy using different methods.

	SVM SFFS	Naïve Bayes	Naïve Bayes with SFFS
Time Loading	0.37	91.36	4.09
Time Prediction	0.02	8.58	0.31
Accuracy	0.8267	0.5297	0.6287

	SVM SFFS	Random Forest	Random Forest with SFFS
Time Loading	0.37	2.53	0.62
Time Prediction	0.02	0.36	0.23
Accuracy	0.8267	0.848	0.7966