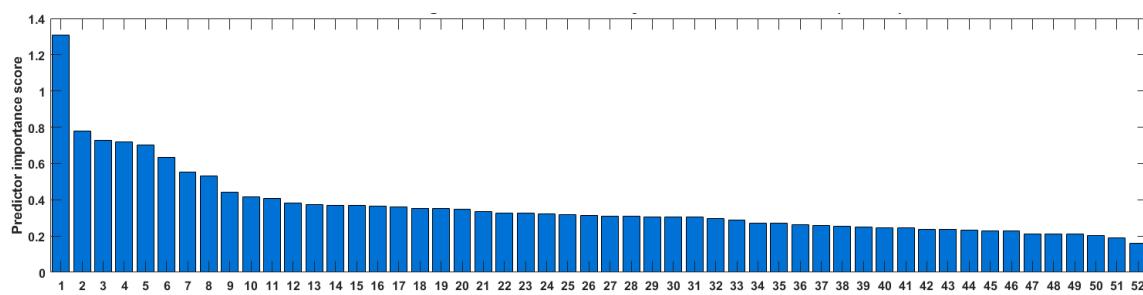


**Table S1.** Feature's ranking based on importance score computed by maximum relevance and minimum redundancy method.

Rank	Feature	Rank	Feature	Rank	Feature	Rank	Feature
1	IQR( Gyr )	14	mad( Gyr )	27	NPosPeak( Acc )	40	mean( Acc )
2	kurtosis( Acc ')	15	skewness( Acc )	28	max( Gyr )	41	max( Gyr ')
3	ZeroCrossing( Gyr ')	16	median( Gyr ')	29	P90( Acc )	42	P10( Acc ')
4	min( Acc )	17	skewness( Gyr )	30	min( Gyr ')	43	P10( Acc )
5	min( Gyr )	18	max( Acc )	31	MotionLess( Gyr )	44	MotionLess( Acc )
6	skewness( Gyr ')	19	skewness( Acc ')	32	mean( Gyr )	45	std( Acc )
7	mean( Gyr ')	20	skewness( Gyr ')	33	median( Acc ')	46	IQR( Acc )
8	min( Acc ')	21	P90( Gyr ')	34	std( Gyr ')	47	median( Acc )
9	NNegPeak ( Gyr )	22	NPosPeak( Gyr )	35	NNegPeak( Acc )	48	mad( Acc )
10	P90( Gyr )	23	std( Gyr )	36	median( Gyr )	49	mad( Acc ')
11	kurtosis( Gyr )	24	kurtosis( Acc )	37	kurtosis( Gyr ')	50	ZeroCrossing( Acc ')
12	P10( Gyr )	25	IQR( Gyr ')	38	mad( Gyr ')	51	IQR( Acc ')
13	P10( Gyr ')	26	max( Acc ')	39	P90( Acc ')	52	std( Acc ')

Mad: mean absolute deviation, P10: 10th percentile, P90: 90th percentile, IQR: interquartile range, NNegPeak: number of valleys, NPosPeak: Number of peaks, MotionLess: percentage of the motion less period, ZeroCrossing: number of zero crossing.



**Figure S1.** Feature's importance score computed by minimum redundancy maximum relevance method for 52 features.