

## Pre-processing

## Segmentation

## Feature exaction

## Classification

HR signal

ACC signal

GYR signal

GSR signal

Clean data

Filter signal

Smooth signal

Align signal

Remove  
individual trend

1min sliding window  
(50% overlapping)

HRV feature set (10):  
POWA HRV parameters of  
time domain and frequency  
domain

HR feature set (20):  
POWA statistical parameters  
of HR and RRI signals

ACC/GYR feature set (80):  
POWA statistical parameters  
of ACC, GYR and their  
magnitude signals

GSR feature set (10):  
POWA statistical parameters  
of GSR signal

bootstrapping-  
based ensemble  
classifier network