

# HW #4

1. Implement the Pan-Tompkins method for QRS detection in MATLAB. You may employ a simple threshold-based method to detect QRS complexes as the procedure will be run off-line.

Apply the procedure to the signals in the files ECG3.dat, ECG4.dat, ECG5.dat, and ECG6.dat, sampled at a rate of 200 *Hz* (see the file ECGS.m). Compute the averaged heart rate and QRS width for each record. Verify your results by measuring the parameters visually from plots of the signals.

2. Implement the adaptive thresholding and searchback procedure to your P-T method and redo problem 1.
  3. Apply your P-T method to your personal ECG.
- Due date: 11/13 2019.