rwave_detect: Perform R-wave detection in ECG Signals (filtering, derivative filtering and squaring)

```matlab
function [qrs_i_raw, qrs_amp_raw] = rwave_detect(ecg, fs, min_peakH)

 qrs_amp_raw = [];
 qrs_i_raw = [];
 delay = 0;

 % Bandpass Filtering
 Wn = [0.5 60]*2/fs; % Cut off (based on fs)
 N = 3; % Filter Order
 [a, b] = butter(N, Wn); % Design Butterworth Filter
 ecg_f = filtfilt(a, b, ecg); % Perform Zero-Phase Filtering
 ecg_f = ecg_f / max(abs(ecg_f));

 % Derivative Filtering
 h_d = [-1 -2 0 2 1]*(1/8);
 ecg_d = conv(ecg_f, h_d); % Perform Derivative Filtering
 ecg_d = ecg_d / max(ecg_d); % Normalize Values
 delay = delay + 2; % Delay of filtering is 2 samples.

 % Squaring
 ecg_s = ecg_d.^2;
```

Not enough input arguments.

Error in rwave_detect (line 8)
*Wn = [0.5 60]*2/fs; % Cut off (based on fs)*

```matlab
 %% Moving average
 m_d = ones(1 ,round(0.015*fs))/round(0.015*fs);
 ecg_m = conv(ecg_s , m_d);
 delay = delay + length(m_d);

 % Find Peaks
 % MinPeakDistance: no RR wave can occour in 200 msec time distance
 % MinPeakHeight: Threshold values based on signal mean
 [~,locs] = findpeaks(ecg_m, 'MINPEAKDISTANCE',
 round(0.2*fs), 'MinPeakHeight', min_peakH*abs(mean(ecg_m)));
 qrs_i_raw = locs - delay;
 qrs_amp_raw = ecg(qrs_i_raw);

end
```

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