Fig 3.2.1\_1 Traditional placement of ECG probes

Fig 3.2.1\_2 Circuit Design-1

Fig 3.2.1\_3 Superposed Output – with Probe Connection to Limbs

Fig 3.2.1\_4 50Hz Output without Probes Connected to Limbs

Fig 3.2.1\_5 Circuit Design-2

Fig 3.2.1\_6 Soldered Circuit

Fig 3.2.2\_1 AD8232

Fig 3.2.2\_2 Internal Pin Diagram of AD8232

Fig 3.2.3\_1 Raspberry Pi 2 model B

Fig 3.2.4\_1 MCP 3008 ADC

Fig 3.2.5\_2 MCP 3008 interface to Raspberry Pi

Fig 3.2.6\_1 IS THIS NEEDED?

Fig 3.4.1\_1 Baseline Wandering and Powerline noise in ECG

Fig 3.4.2.1\_1 PSD of a sample ECG signal with noise components

Fig 3.4.2.1\_2 IIR Filtered Signal without Baseline Wandering

Fig 3.4.2.2\_1 Diagrammatic Representation of Fourier Transform applied to a Signal

Fig 3.4.2.2\_2 Diagrammatic Representation of Short Fourier Transform applied to a Signal

Fig 3.4.2.2\_3 Fourier Transform applied Sine Signal

Fig 3.4.2.2\_4 Wavelet Decomposition of a Signal

Fig 3.4.2.2\_4 Wavelet Decomposition of a Signal

Fig 3.4.2.2\_6 Wavelet Decomposition Tree

Fig 3.4.2.2\_7 Mother wavelet

Fig 3.4.2.2\_8 Wavelet Decomposition in different modes

Fig 3.4.2.2\_9 Decomposition in Tree mode

Fig 3.4.2.2\_10 Complete Wavelet Decomposition

Fig 3.4.2.2\_11 WHAT??

Fig 3.4.2.2\_12 WHAT??

Fig 3.4.2.2\_13 WHAT??

Fig 3.4.2.2\_14 WHAT??

Fig 3.4.3.2\_1 Poincare Plot

Fig 3.4.3.3\_1 PSD of a sample from dataset used

Fig 3.4.3.4\_1 MATLAB Toolbox to select order of ARX polynomial

Fig 3.4.3.4\_3 ARX model structure selection

Fig 3.4.3.4\_3 Coefficients of ARX model fit to required order and input/output signals provided

Fig 3.6.1\_1 Importance of regularization

Fig 3.6.2\_2 Accuracy for a range of hidden neurons