APPENDIX 1

SIMULATION RESULTS WITH HIGHER NOISE LEVELS

DENOISED OUTPUT USING TECHNIQUE A

(a) Clean ECG signal, Noise and Noisy signal when noise level is 20%

(b) Recovered ECG signal

Figure A1.1 (Continued)
Figure A1.1 Denoised output for 20% noise level using Technique A
(a) Clean ECG signal, Noise and Noisy signal when noise level is 30%
Figure A1.2 Denoised output for 30% noise level using Technique A
(a) Clean ECG signal, Noise and Noisy signal when noise level is 50 %

(b) Recovered ECG signal

Figure A1.3 (Continued)
Figure A1.3 Denoised output for 50% noise level using Technique A.
DENOISED OUTPUT USING TECHNIQUE B

(a) Clean ECG signal, Noise and Noisy signal when noise level is 20%

(b) Denoised ECG signal

Figure A1.4 (Continued)
Figure A1.4 Denoised output for 20 % noise level using Technique B

(c) Spectrum of Recovered signal
(a) Clean ECG signal, Noise and Noisy signal when noise level is 30%

(b) Denoised ECG signal

Figure A1.5 (Continued)
Figure A1.5 Denoised output for 30% noise level using Technique B
Figure A1.6 (Continued)

(a) Clean ECG signal, Noise and Noisy signal when noise level is 50%

(b) Denoised ECG signal
Figure A1.6 Denoised output for 50% noise level using Technique B
DENOISED OUTPUT USING TECHNIQUE C

(a) Clean ECG signal, Noise and noisy signal

(b) Denoised ECG signal

Figure A1.7 (Continued)
(c) Spectrum of the recovered signal

(d) Spectrum Subtraction

Figure A1.7 (Continued)
(e) Denoised signal for one cycle of ECG signal

(f) Plot of difference between original and denoised signal

Figure A1.7 Denoised output for 20% noise level using Technique C
(a) Original ECG signal, Noise and Noisy signal when noise level is 30%

(b) Denoised ECG signal

**Figure A1.8 (Continued)**
Figure A1.8 (Continued)
(e) Denoised signal for one cycle of ECG signal

(f) Plot of difference between original and denoised signal

Figure A1.8 Denoised output for 30% noise level using Technique C
DENOISED OUTPUT USING TECHNIQUE D

(a) Original ECG signal, noise and Noisy ECG signal

(b) Denoised ECG signal

Figure A1.9 (Continued)
Figure A1.9 Denoised output for 20% noise level using Technique D
(a) Original ECG signal, Noise and Noisy signal when noise level is 30% 

(b) Denoised ECG signal 

Figure A1.10 (Continued)
Figure A1.10 (Continued)
(e) Denoised signal for one single cycle of ECG signal

Figure A1.10 Denoised output for 30% noise level using Technique D