Abstract

Electrocardiogram (ECG) is the technique that is used to record the electrical signal of the heart over a time interval by using the electrodes, positioned on a patient's body. The signals collected from the body needs to be processed and compressed before directing to monitoring center. Electrocardiogram (ECG) data compressions minimize the necessities of storage to generate a more proficient tele-cardiology system for the cardiac exploration and diagnosis. This paper focus on the evaluation of several compression schemes for ECG data compression and also provides the comparison of the various ECG compression techniques such as Turning Point, Delta Coding, AZTEC, CORTES, DCT etc. in terms of different performance metrics like Compression Ratio (CR), Percent Mean Square Difference (PRD) and Quality Score (QS).

References

A Survey on different Compression Techniques for ECG Data Reduction

Sensor Nodes”, IEEE, transactions on Biomedical engineering, VOL. 58, NO. 9, Pp 2456-2466, 2011


17. Jianhua Chen, Fuyan Wang, Yufeng Zhang and Xinling Shi, “ECG Compression using
uniform scalar dead zone quantization and conditional entropy coding”, Vol 30, Issue 4, Pp 523-530, 2008

Index Terms

Computer Science  Signal Processing

Keywords

ECG signal, Compressive Sensing, Time domain techniques, Wavelet based techniques.