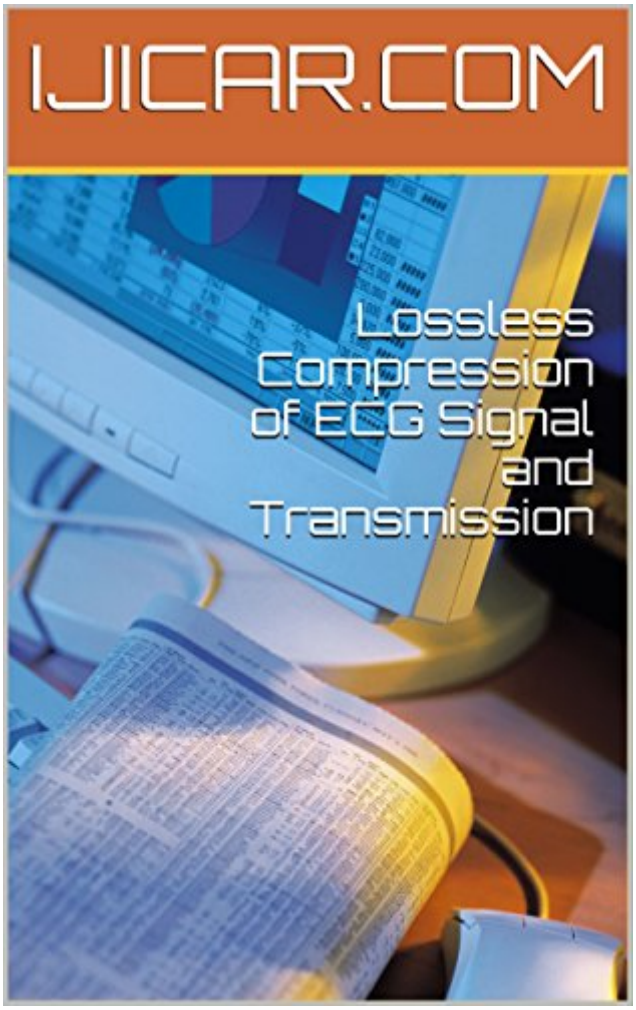
Lossless Compression Of ECG Signal And Transmission



Synopsis

Compression and transmission of signals plays a vital role in the modern medical field. Signals, when collected for a long period of time, size will become larger. ECG (Electro Cardio Graph) signals require large amount of disk storage space. The size of ECG can be effectively reduced by signal compression, which results in efficient utilization of file size by reducing the size of the signal and without compromising the quality of the signal. The compressed signals can be transmitted at a faster rate over a medium. Different compression algorithms have been devised for the compression. In this experiment the neural network predictor is used to predict the ECG signals and they are compressed by using Huffman coding. Huffman coding reduces the size of the signal losslessly and makes the signal error free. The compressed signal is stored at the database. From the database signals can be transmitted to the doctor for the continuous analysis of the ECG with the help of an android application. When doctor selects a patient, the request is being transmitted through the web server to the database. From the database the ECG wave of the particular patient is transmitted to the android application. Thus the doctor could view the ECG waveform and diagnose the patient even from a distant place.This paper was published in IJICAR - International Journal of Integrated Computer Applications & Research - http://ijicar.com

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