Abstract

ECG analysers have proved out to be very useful in the analysis of human heart beat and subsequently diagnosis of various human cardiovascular diseases. The design of these real time ECG analyzers is difficult since real time environment is not always available for the performance analysis of these analyzers. The existing ECG analyser makers are making use of expensive data restitution boards which generate real time signals for the performance analysis of ECG analyzers, which make the system even more expensive. Thus in this paper a virtual patient is proposed, which creates a real environment for the analysis of ECG analyzers by generating real time ECG signals from the database of real acquired data, by making use of simple Microcontroller. The signals generated by Microcontroller are seen as real signals coming from the instantaneous heart activities by the analyzer. The use of Microcontroller makes the system cost efficient and can be utilized as a test bench for the study of ECG signals at the laboratory level.

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Index Terms

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