Heart Track: Automated ECG Analysis for Detecting Myocardial Infarction

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Abstract

The paper presents a system, Heart Track, which aims for automated ECG (Electrocardiogram) analysis. Different modules and algorithms which are proposed and used for implementing the system are discussed. The ECG is the recording of the electrical activity of the heart and represents the depolarization and repolarization of the heart muscle cells and the heart chambers. The electrical signals from the heart are measured non-invasively using skin electrodes and appropriate electronic measuring equipment. ECG is measured using 12 leads which are placed at specific positions on the body [2]. The required data is converted into ECG curve which possesses a characteristic pattern. Deflections from this normal ECG pattern can be used as a diagnostic tool in medicine in the detection of cardiac diseases. Diagnosis of large number of cardiac disorders can be predicted from the ECG waves wherein each component of the ECG wave is associated with one or the other disorder. This paper concentrates entirely on detection of Myocardial Infarction, hence only the related components (ST segment) of the ECG wave are analyzed.
References


8. www.youtube.com https://www.youtube.com/watch?v=T_b9U5gn_Z


Index Terms

Computer Science Biomedical

Keywords

ECG, R-peak