A condition in which the heart beats with an irregular or abnormal rhythm is known as Arrhythmia. This paper presents a procedure to extract information from Electrocardiogram (ECG) data & determine types of Arrhythmias. The decisions were achieved by determining different intervals such as PR Interval, RR Interval, Heart Rate (HR) etc. and those intervals were compared with the ideal intervals. During the whole process MATLAB was used & ECG signals were taken from PhysioBank ATM. In this process Savitzky–Golay filter was used to
reduce the noise of the signal. Tachycardia, Bradycardia, Heart Block, Junctional Arrhythmia, Premature Articular Contraction were detected during this analysis. The results show simplified detection of arrhythmia with 90% accuracy.

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Index Terms

Computer Science

Signal Processing

Keywords

Electrocardiogram Arrhythmia PR Interval RR Interval Heart Rate.