Paper Title

**Automatic Premature Ventricular Contractions**

**Detection for Multi-lead Electrocardiogram**

**Signal**

1. **Preprocessing: Filtering & Segmentation**

deep learning architecture which is built using Stacked Denoising Autoencoders (SDAEs) networks

1. **Feature Extraction**

In the first stage, we learn a new feature representation from raw ECG data using SDAEs

1. **Classification & Classifier**

The proposed approach used linear discriminant analysis (LDA) classifier. An automatic heartbeats classification of in an ECG signal method has been proposed in [16]. An automatic classification of heartbeats system have been proposed in [17], it based on higher order statistics (HOS) of wavelet packet decomposition (WPD)

1. **Accuracy**

98.6%, 91.4%, and 97.7% respectively for overall accuracy (OA), average sensitivity (Se), and average positive productivity (Pp).

1. **Two Leads or One Lead ? In case of two leads .. how classification of two leads is merged to have final decision ?**

multi-lead signals

the automatic classification of premature ventricular contractions (PVCs) for multi-lead ECG signals.

1. **Classes**

**........**

**NOTES :**

technique for the automatic detection of Premature Ventricular Contractions (PVC) based on multi-lead signals

-automatic classifier using a Gaussian mixture model (GMM)

- (SVM )classifier has been used for the classification of heartbeats

- ECG beats has been analysed by using WPD method, the method consists of three stages. First, the wavelet package coefficients (WPC) are calculated for each different type of ECG beat. Then HOS of WPC are derived. At last, the obtained set of features is used as input to a classifier, which is based on k-NN algorithm. Unsupervised feature relevance analysis which applied to enhance ECG heartbeat clustering has been stated in [18]. The work stated in [19] proposed a supervised graph based on pattern recognition technique