SUPPORT VECTOR MACHINE BASED HEARTBEATCLASSIFICATION

1. **Preprocessing: Filtering & Segmentation**

Filter using a wavelets-based approach

Segmentation using R-peak

1. **Feature Extraction**

Wavelet transform- Morphological use for Feature extraction

1. **Classification & Classifier**

the technique used for classification of the heartbeats is an SVM classifier which classifies the heartbeat under consideration into one of the 16 classes.

1. **Accuracy**

99% in “class-oriented” evaluation and an accuracy of  
86% in the “subject-oriented” evaluation.

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

Two-lead fusion

two leads is merged to have final decision using rejection approach

1. **Classes**

16 classes