Paper Title

Classification of Heart Diseases Based on ECG Signals Using Long Short-Term Memory

1. **Preprocessing: Filtering & Segmentation**

using **Symbolic Aggregate approXimation (SAX)**

SAX follows two steps; The first step is to reduce the dimension using Piecewise Aggregate Approximation (PAA) and the second step is to convert a PAA sequence into a series of letters.

1. **Feature Extraction**

Deep Learning Approach in the next point.

1. **Classification & Classifier**

using **Long Short-Term Memory (LSTM)**, which is developed to encode a sequence input of variable lengths for supervised learning.

1. **Accuracy**

We find that even if there is not a preprocessing step, LSTM always achieves the high-accuracy about **97%**.

It is obvious that obtaining the highest accuracy **98.4% using SAX** as preprocessing method.

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

Not Mentioned.

1. **Classes**

Not Mentioned.