Abstract:
Hidden Markov Models are very efficient in speech recognition. Based on machine states, HMMs combine Bayesian probability and decision making to approximate each output to its appropriate class. In this paper, we propose to use HMMs for ECG QRS detection. We select a set of models to represent QRS complex and noise aiming to a better discrimination between them. For a total of 44510 beats of the MIT/BIH arrhythmia database, we achieved 0.741% of error rate.