

CLASSIFICATION OF ARRHYTHMIA BY  
USING DEEP LEARNING WITH 2-D ECG  
SPECTRAL IMAGE REPRESENTATION

LITERATURE SURVEY

S.NO.	AUTHOR(S)	TITLE	METHODOLOGY	LIMITATIONS
1.	Mohebbanaaz, Y. P. Sai and L. V. R. kumari	A Review on Arrhythmia Classification Using ECG Signals,	This paper presents survey on issues concerned in ECG denoising, feature extraction, optimization and classification. Furthermore, methods used to analyze the performance are also discussed	Techniques used here for ECG denoising, Feature Extraction and Classification can be improved
2.	J. Lang and F. Yang	An improved classification method for arrhythmia electrocardiogr am dataset	In this paper Difference- Weighted k-nearest neighbor (DF-WKNN) classifier is presented to recognize unbalanced UCI cardiac arrhythmia data from the UCI arrhythmia data set. This method incorporates the correlation of K neighbors into the classification	ECG pre-processing methods are not discussed in detailed fashion
3.	H. Yang and Z. Wei	Arrhythmia Recognition and Classification Using Combined Parametric and	In this work, a new method combined with a novel morphological feature is proposed for accurate recognition and classification of arrhythmias	The variability of other ECG waves, such us P waves, and T waves should be studied based on the proposed feature extraction algorithm to further

		Visual Pattern Features of ECG Morphology		improve the performance of the whole system.
4.	P. Varalakshmi and A. P. Sankaran	Classification of Arrhythmia Based on Machine Learning Algorithms Using ECG Signals	This paper presents the comparison of different sampling techniques, machine learning models and ensemble models for the classification of arrhythmia	Support-Vector - Machine algorithm is used, which is inefficient when compared to Artificial Neural Networks.
5.	C. Ye, M. T. Coimbra and B. V. K. Vijaya Kumar	Arrhythmia detection and classification using morphological and dynamic features of ECG signals	In this paper, a new approach is proposed for arrhythmia classification based on a combination of morphological and dynamic features. Wavelet Transform (WT) and Independent Component Analysis (ICA) are applied separately to each heartbeat to extract corresponding coefficients, which are categorized as 'morphological' features	Techniques discussed here are quite outdated.