

## PREDICTION AND ANALYSIS OF ECG SIGNAL BEHAVIOR USING SOFT COMPUTING

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### ABSTRACT

The main cause of human death is cardiovascular disease (CVD) in today's world. In order to combat and diagnose this disease, many professionals are using mobile electrocardiogram (ECG) in remote monitoring system. ECG Feature Extraction plays a significant role in diagnosing most of the cardiac diseases. Here comprehensive review has been made for feature extraction of ECG signal analyzing, feature extracting and then classifying it have been proposed during the past time, and here we introduced Artificial Neural Network (ANN).

To know the present condition of the heart Electrocardiography and is an important tool but it is a time consuming process to analyze a continuous ECG signal as it may contain thousands of continuous heart beats. Here we convert analog signal to digital one and then reverse of it, it helps in accurately diagnosing the signal. Also this paper presents a detection of some heart arrhythmias using Matlab is done. Hence we input ECG signals to the neural network, these signals are processed by ANN and we diagnose heart arrhythmias correctly. Most important thing in analysis of ECG signals is its fundamental features like amplitudes and intervals are required which determine the functioning of heart. Results shown here are explaining the diagnosis and classification of diseases.

**KEYWORDS:** ECG Signal, Artificial Neural Network