Abstract

Arrhythmia refers to an abnormality in the rhythm or frequency of a person's heartbeat. While most arrhythmias are not typically harmful, they can exhibit symptoms associated with heart disease, including more severe types such as Atrial Fibrillation (AF), Premature Atrial Contraction (PAC), and Premature Ventricular Contraction (PVC). Many studies have utilized feature extraction to detect these conditions using electrocardiogram (ECG) signals. However, the use of feature extraction methods in previous research on ECG signals has not yielded optimal accuracy. Therefore, this study aims to identify relevant features and achieve better results using dynamic feature extraction methods. This approach focuses on three main features: RR interval, PR interval, and QRS complex. By combining these three features, this research achieved a high level of accuracy at 98.21%, with a specificity of 98.65% and a sensitivity of 97.37%.

Keywords: Arrhythmia, Dynamic Feature, Feature Extraction, Electrocardiogram