

Cardiac arrhythmias are common heart rhythm disorders with significant global impact. They are a leading cause of death worldwide, accounting for 31 percentage of all deaths according to the World Health Organization. Atrial fibrillation, ventricular tachycardia, and sinus bradycardia are among the most frequent types of arrhythmias. Researchers have developed low-cost devices and machine learning algorithms to detect and classify arrhythmias using electrocardiogram signals. Improving access to specialized healthcare, particularly in rural areas, is crucial in addressing the disparities in diagnosing and managing cardiac arrhythmias. Early evaluation using cost-effective devices can be a valuable tool in identifying potential heart rhythm abnormalities and guiding patients towards appropriate care, preventing emergencies and long-term complications.