

Title of the talk: Arrhythmic Heartbeat Detection Using Efficient ML Algorithms

Abstract: Electrocardiogram (ECG) is a representation of the electrical signal from the heart to analyze different heart functionality of the cardiovascular system and detect several abnormal arrhythmias. ECG signals have been broadly used for diagnosing heart diseases due to its simplicity and non-invasive nature. Initial detection of arrhythmia has great importance to prevent numerous diseases. Manual analysis of ECG recordings is not helpful for instantly recognizing arrhythmias that may cause unexpected deaths. Current research focuses on an automated heartbeat classification to prevent the increasing risks of cardiovascular diseases. Features have been extracted using several techniques. To classify arrhythmias in ECG signals different machine-learning (ML) algorithms have been used. The talk will discuss the robust automatic cardiac arrhythmia detection scheme for the classification of ECG arrhythmias. Also evaluate the performance of the system in comparison with various existing approaches, in terms of achieved accuracy in the detection of abnormal events.