

Year	Title	Link	Inference
2020	Classification of Arrhythmia by using Deep Learning with 2-D ECG Spectral Image Representation	Reference Paper 1	One Dimensional ECG time series signals are transformed into 2-D Spectrograms through STFT and fed into a model consisting of four convolutional layers and four pooling layers and reaching the state of art average classification accuracy of 99.11%.
2020	ECG Biometrics Using Deep Learning and Relative Score Threshold Classification	Reference Paper 2	This work proposes two architectures to improve current results in both identification and authentication by using Temporal Convolutional Network and Recurrent Neural Network. It has received an accuracy of almost 96% with Equal Error Rate of 0.1%.
2019	ECG Arrhythmia Classification By Using Convolutional Neural Network And Spectrogram	Reference Paper 3	Two schools of approach were taken to classify at least 7 types of arrhythmias: One, by time series signal classification where the typical feature-extraction technique is not used, and two, by ECG spectrogram method where STFT (short term Fourier transform) is used to classify the kinds of heartbeat patterns. 1-D signal was analysed in 4-D domains and around 95% accuracy and sensitivity rates were achieved, especially with the PVC (premature ventricular contractions) type.
2019	ECG Arrhythmia Classification Using STFT-based Spectrogram and Convolutional Neural Network	Reference Paper 4	ECG arrhythmia classification method based on deep learning techniques. ECG signals, belonging to five different types were obtained from the MIT-BIH arrhythmia database. The ECG arrhythmia classification experimental results have successfully validated that the proposed 2DCNN can achieve better classification accuracy without manual pre-processing of the ECG signals such as noise filtering, feature extraction, and feature reduction.
2019	Arrhythmia Classification on ECG Using Deep Learning	Reference Paper 5	The proposed system compares various activation function by varying the number of epochs and the result is obtained where ELU function has an accuracy of 93.6 and with a loss of 0.2