Classification Of Arrhythmia By Using Deep Learning With 2-D ECG Spectral Image Representation

SURIYA R (927619BEC4210)

SUGUMAR S (927619BEC4214)

YOGANATHAN M (927619BEC4240)

VISHNURAM S (927619BEC4235)

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING

Who does the problem affect?	People who are affected by cardiovascular diseases primarily of village areas.
What are the boundaries of the problem?	People who are the age(35-60)and majorly over 50
What is the issue?	The most important behavioural risk factors of heart disease and stroke are unhealthy diet, physical inactivity, tobacco use and harmful use of alcohol. The effects of behavioural risk factors may show up in individuals as raised blood pressure, raised blood glucose, raised blood lipids, and overweight and obesity.
When does the issue occur?	During the age excess of over 50, It can happen at any age. High rates of obesity and high blood pressure among younger people (ages 35–64) are putting them at risk for heart disease earlier in life.

Where is the issue coming?	It majorly occurs due to the high blood pressure, high low-density lipoprotein (LDL) cholesterol, diabetes, smoking and secondhand smoke exposure, obesity, unhealthy diet, and physical inactivity.
Why is it important that we fix the problem?	It is very crucial to develop a application that detects the disease at good prediction rate so that it helps to get a clear line of disease symptoms during the times.
Which solution can be used to address this issue?	we build an effective electrocardiogram (ECG) arrhythmia classification method using a convolutional neural network (CNN), a web application where the user selects the image which is to be classified. The image is fed into the model that is trained and the cited class will be displayed on the webpage.
What methodology used to solve the issue?	Python,CNN,IBM Cloud,IBM Watson Studio,IBM Cloudant DB,Deep Learning,Python-Flask.