

ABSTRACT

High cholesterol levels are one of the indication of heart disease and stroke. Checking cholesterol levels is usually done in the laboratory. However, many people are reluctant to check their cholesterol levels regularly, there are various reasons start from time to economic reasons.

This cholesterol level detection application was made to overcome the problems above. This application determines cholesterol levels in a person's body by capturing the image of the iris. If the user has high cholesterol levels, then there is a white-grayish circle on the outer circle of the iris. The machine learning method used to detect cholesterol levels is a convolutional neural network. This application is expected to help users to routinely check cholesterol levels and be aware of heart disease and stroke with 96,3% accuracy.

Keywords: *cholesterol, convolutional neural network, heart disease, stroke, iris.*