Automated Detection of Cholesterol Presence using Iris Recognition Algorithm

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Abstract

Arcus senilis is a grayish or whitish bow shaped or ring-shaped deposit in the cornea. It is associated with coronary heart disease (CHD). It is also recognized as a sign of hyperlipidemia. Iridology is an alternative medicine to detect diseases using iris’s pattern observation. Iridologists believe that the grayish or whitish deposit on the iris is a sign of presence of cholesterol or Arcus senilis disease. The simple and non-invasive automation system is developed to detect cholesterol presence using iris recognition algorithm in image processing. This study applies iris recognition method to segment out the iris area, normalization process and lastly determines the cholesterol presence using OTSU’s thresholding method and histogram to determine the optimum threshold value. The result showed that the presence of cholesterol was high when the eigenvalue exceeds an optimum threshold value.

References

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Index Terms

Computer Science
Algorithms

Keywords

Biometric-Identification, Iris recognition, OTSU’s Algorithm, Arcus Senilis, Cholesterol Detection.