

عنوان مقاله:

A Hybrid ANFIS Model for studying the impact of Zernike coefficients on Keratoconus utilizing BA optimization and FCM

محل انتشار:

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خلاصه مقاله:

Nowadays because of the complicated nature of modeling impact of effective variables in medical testing results and making strategy for better detecting diseases via newly developed data mining and machine learning techniques which have been applied to various fields to build intelligent information systems, many research papers have involved in this issue. One of the severe and progressive eye diseases is Keratoconus (KC) which can affect the patient's ability to drive a car or read normal print. The Zernike coefficients are effective variables in KC and Visual Acuity (VA) in LogMAR form is regarded as a testing result for that. Therefore, the present research adopts Bat-Inspired Algorithm optimization (BA) techniques to obtain appropriate parameter settings for Fuzzy C-Means clustering (FCM) and integrates the adaptive-network based fuzzy inference system (ANFIS) model to construct a model for predicting impact of Zernike coefficients in VA of a Keratoconic eye

کلمات کلیدی:

Adaptive network-based fuzzy inference system (ANFIS); Bat algorithm optimization; Fuzzy C-Means Clustering
Keratoconus

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