PERSON IDENTIFICATION USING IRIS RECOGNITION BASED ON DCT AND NEURAL NETWORK

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Abstract

Design and evaluation of Iris recognition system for person identification is discussed in this paper. As technology advances information and intellectual properties are wanted by many unauthorized personnel. As a result many organizations are searching ways for more secure authentication methods for the user access. In network security there is a vital emphasis on the automatic personal identification. Due to its inherent advantages biometric based verification especially iris identification is gaining a lot of attention. Iris recognition uses iris patterns for personnel identification. The system steps are capturing iris image, localizing iris and the iris pattern recognition. The iris is extracted from the eye image. Due to the high degree of freedom in iris pattern only part of the iris structure is selected for recognition. The proposed method is Discrete Cosine Transform (DCT) coefficient based technique that extracts important features using transformed coefficients. Obtained features are fed to generalized feed forward neural network with different learning rules and activation functions for person identification. Experimental results show that Discrete Cosine Transform (DCT) based feature extraction technique has an encouraging performance.