Abstract

Iris recognition is the mean of biometric identification using very large amount of iris database taken without contact to the human body. Basically three main methods are available to process iris data, out of which in this paper, an iris image synthesis method based on Principal Component Analysis (PCA), Independent component analysis (ICA) and Daugman’s rubber sheet model & hybrid model is proposed. Iris Recognition is a most secure biometric authentication that uses pattern-recognition techniques. The video based iris recognition system is used to locate eye and iris, to evaluate degree of occlusion by eyelids, determine the centre & boundary of pupil and outer edge of iris. The measured features are encoded into 512-byte iris code which is further enrolled for identification. Here we compared different techniques i. e. ICA, PCA, Daugman’s rubber sheet model & hybrid model which is combination of all above three along with RFID system. Out of 400 degrees of freedom (measurable variables), 200 features are compared to create the code which can be compared to an entire database in milliseconds. After using lot many algorithms for iris recognition we found that existing system shows, Daugman’s rubber sheet model is better. The comparative study of the various algorithms proposed above shows some interesting results
which is the achievement of the practical study on iris recognition.

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Keywords
Rfid  Ica  Pca  Gabber  Iris