

Iris recognition using self-organizing neural network

ABSTRACT

Among biometric systems for user verification, iris recognition systems represent a relatively new technology. Our system consists of two main parts: a localizing iris and iris pattern recognition. The raw image is captured using a digital camera. The iris is then extracted from the background after enhancement and noise elimination. Due to noise and the high degree of freedom in the iris pattern, only parts of the iris structure are selected for recognition. The selected iris structure is then reconstructed into a rectangle format. Using a trained self-organizing map neural network, iris patterns are recognized. The overall accuracy of our network is found to be about 83%.