Visual Cryptography for Biometric Privacy

Suprabha[1], M B Sachin[2], Shravan Kumar[3], Sooraj Shetty[4], Ganesh V N[5]
[1,2,3,4]Department of Electronics & Communication Engineering,
[5]Senior Assistant Professor, Department of Electronics & Communication Engineering,
Mangalore Institute of Technology & Engineering-Badaga Mijar, Moodabidri

Abstract:

Cryptography is basically a process for securing the data during the communication between different systems. “Biometric”, is used for authentication. To work with the biometric authentication, it collects some raw biometric data (e.g., image) and then that data is compared with the data (image) stored in the database for providing access. The attackers may use these opportunities to attack the data within the database. Therefore, the security of biometrics is of high importance. In this idea, a private image is bifurcated into two host face images such that it can be revealed only when both host images are simultaneously available; at the same time, the individual host images do not reveal the identity of the original image. In order to accomplish this, we use Visual Cryptography. VC is a process of creating shares from an image so that it would become unreadable for intruder or unauthenticated person. There are various dimensions on which Visual Cryptography Scheme (VCS) performance relay, i.e., accuracy, brightness, pixel widening, security, computer complexity, productive sharing is logical or pointless, type of secret image. This technique encrypts a private image into stocks so that it can collect a sufficient number of shares produces a private image. This project uses VC of colored images in a biometric application.

Keywords: Biometrics, Visual Cryptography, VCS, Private Face Image

Suprabha
4MT18EC089

M B Sachin
4MT18EC045

Shravan Kumar
4MT18EC079

Sooraj Shetty
4MT18EC088