Abstract

The critical issues in biometric systems are protecting the template of a user which is stored in a database. An attack against the stored templates constitutes a major security and privacy threat in a biometric system. Proper use of cryptography greatly reduces the threats in biometric system as the attackers have to find the decryption key and template. This paper proposes an approach for biometric database protection using ElGamel encryption technique. The algorithm was successfully tested on a binary image, gray image and a colour image.

References

- Anil K. Jain, Karthik Nandakumar, and Abhishek Nagar, "Biometric Template Security", EURASIP Journal on Advances in Signal Processing, Volume 2008, pp. 1-7,
Article ID 579416.

Index Terms

Computer Science
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Keywords

Primitive roots  PN sequence  ElGamal Encryption