

A Secure Authenticated Bio-cryptosystem Using Face Attribute Based on Fuzzy Extractor

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Abstract

Development in usage of internet for sharing data over internet leads to some risk on privacy, authenticity and confidentiality of information. To overcome the problem of security and authenticity, biometrics and cryptography technology are separately used due few drawbacks in both system, but because of their similar characteristics these two technologies are combined and Bio-crypto system has been designed, to satisfy the needs of user who transmit their data through internet for enhancing the security and authenticity of data and the user. In this proposed work bio-cryptosystem based on fuzzy extractor using face attributes, the user face feature points are extracted and bio code can be generated by bio hashing technique to facilitate the user to access the key that are already stored on the database server. By using face attribute for retrieving the key there is no need for the user to remember the pass code which does not corresponds to the user moreover biometric features cannot be stole and forgotten.

Using bio-crypto system the user can be authenticated by enrolment and verification process and encrypt the key along with the own face attribute of the user to make the system more secure and authenticated. The robustness of the data is prevented and there is no cause of bug or intrusion occurs during the interval of data transmission. By this proposed work security, privacy, confidentiality and authenticity can be increased and provide authority only to the valid user to access the data using bio-crypto key.




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