Identification of Merged Bio-cryptic Patterns using Bio-Pattern Recognition Algorithm in Security Levels of Wireless Local Area Network

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Authors:
Ajay Babu Moparthi, Sudhakar Godi, Rajasekhar Rao Kurra

Abstract

Authentication module plays a vital role in securing wired or wireless network from intrusion attacks. Especially Wireless Networks (WN) are more prone to the security threats. This paper discusses in strengthening the authentication process of Wireless Local Area Network (WLAN) by recognition of various levels of Wireless Authentication Packets (WAP). The WAP comprises of diverse combinations of Bio-cryptic merged patterns like thumb-print, Iris, Palm-print and face. WAP is used in accordance with the security level. In general, the biometric pattern matching algorithm is used to match the patterns individually. But in WLAN, the Advanced Radius Authentication Server (ARAS) comprises of Merged Bio-cryptic pattern matching and identification is a challenging task for the practitioners and investigators. To resolve the above issue, this work proposes a novel Bio-Pattern Recognition (BPR) Algorithm for the effective recognition of the Bio-cryptic patterns. The proposed algorithm was compared with the existing each individual recognition algorithm. Where reliability, recognition time, True Positive Identification Rate (TPIR) and False Negative Identification Rate (FNIR) were considered as
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major parameters. Finally the experimental results show the overall performance of the proposed BPR algorithm is better in patter recognition with respect to the recognition time.

References

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