Improved Security using DNA Cryptography in Wireless Sensor Networks

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Abstract

Secure communication and data transmission is necessities in wireless sensor networks and security of sensitive data is the major concern in WSNs. DNA cryptography depicts a crucial part in the area of security. In DNA cryptography, DNA nucleotide bases are used to store huge amount of data. This paper includes a new security technique based on DNA concept that enhance the security of the wireless sensor networks by including false data in original data, which results a DNA sequence in terms of nucleotide bases. Therefore, intruders will not be able to acquire the main encoded information and encounter enough difficulties to cryptanalyst the coded message. This final data (cipher) consist of the extra information i.e. false information with the original message. It would be much difficult to amplify encoded message sequence by the intruder without knowing the correct sequence of cipher.

References

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**Index Terms**

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**Keywords**

DNA cryptography, Security, WSN, Encryption & Decryption