Abstract

Cryptography plays a key role in information security. Many new algorithms and techniques have been used in the same regards. Cryptography using DNA computing is very current state of the art. DNA cryptography comes with the next level of data integrity and confidentiality to protect information from intrusions, in this paper a cipher solution is proposed with a new symmetric key generation model based upon DNA strands, nucleotides, codons base pair rules, mutation and DNA to mRNA conversion. This solution emphasizes on usage of biological processes & the random changes found in DNA and simulate those processes in the key generation model.

References

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Index Terms

Computer Science Security

Keywords

Cryptography, DNA Cryptography, Symmetric Key Generation, Symmetric Key model, Information Security.