Abstract

DNA cryptography is an emerging field of DNA computing research in information security world. Still this field is in theoretical stage and not in active practice. To overcome this lacuna the present study proposed a fast and secured hybrid algorithm using DES (Data Encryption Standard) with biological concept CDMB (Central Dogma of Molecular biology) developed and implemented in high level programming language. This edifice has enabled to do computations digitally and gave the high level of security, effectiveness and applicability.

References

- Morford, L, &quot;A Theoretical Application of Selectable Markers in Bacterial Episomes for a DNA Cryptosystem&quot;, Journal of Theoretical Biology, p. 100-102, 2011.
- Shihua Zhou, Qiang Zhang, Xiaopeng Wei, "Image Encryption Algorithm Based on DNA Sequences for the Big Image", International Conference on Multimedia Information Networking and Security, 884 - 888, 2010
- Xing Wang, Qiang Zhang, "DNA computing-based cryptography", Bio-Inspired Computing, p 1 - 3, 2009

Index Terms
Computer Science Security
Keywords
Cryptography  Data Encryption Standard  Dna Computing  Dna Cryptography  Central Dogma Of Molecular Biology  Ribonucleic Acid