

# Implementation Of Image Encryption Using DNA Encryption Algorithm

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**Abstract:** *We created an image encryption technique using DNA sequences and a tangled map. This algorithm has two functions: (1) it rearranges the pixels by transforming the nucleotides into equivalent base pairs and random number of times (2) it confuses the pixels with accordance to a chaotic index based on a tangled map. For any size of the image, the rows and columns are first rearranged by the arrays generated by a logistic tangled map. Then, using DNA sequencing, each confused pixel is encoded into four nucleotides. At last, each nucleotide is transformed into the corresponding base pair a random number of time(s) by a series of repeating computations based on tangled map. The encryption process information entropy of the encrypted image is 7.9854. The algorithm implement not only has great cryptographic effects, but it also protects against multidimensional threats, as per security studies.*

**Keywords:** DNA, cryptography, security, privacy, confusion, diffusion, encryption, implementation, algorithm, chaotic maps, maps, image, decrypt.

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