Abstract

The rapid development in internet technologies and applications have led to great increase in the amount of information sent and received electronically. Transmitting information on networks have become insecure because of new threats continue to evolve. This research aims to provide an efficient technique with highly protection degree of secret images being transmitted “in a meaningless form” over a communication channel through the use of chaotic maps by taking its advantages over other methods of encryption. Chaotic based encryption algorithm is employed at the present time because of its best security and good performance according to the random sequences that are generated from nonlinear system in a high speed calculations. The obtained results from the experimental tests proved that the proposed encryption algorithm is a powerful and efficient technique according to the higher (Entropy ≤ 8) and (Correlation ≤ 1) with perfect reconstruction of the decryption image.
11. Pengcheng Wei, Huaqian Yang, Qunjian Hang, and Xi Shi “A Novel Block Encryption Based on Chaotic Map", Department of Computer Sience, Chongqing Education of College, Chongqing 400067, China 2002.

Index Terms

Computer Science
Image Processing
Multi-Levels Image Encryption Technique based on Multiple Chaotic Maps and Dynamic Matrix

Keywords