Extension of Playfair Cipher using 16X16 Matrix

Abstract

The role of Cryptography in today's digital world is significant. It secures information mathematically by mangling message with key. The privacy of intended sender and receiver information is protected from eavesdropper. The objective of the paper is playfair cipher. The existing methods of playfair cipher are studied. The restrictions of earlier works a playfair cipher using 5X5 matrix, 7X4 matrix and 6X6 matrix are overcome in the proposed work. The proposed method plays a 16X16 matrix giving strength to playfair cipher. The proposed work is an enhancement to the existing algorithms that uses 16X16 matrix to pick cipher characters. It makes use of alphabets both lower and uppercase characters, number and special characters for constructing the contents of the matrix.

References

Extension of Playfair Cipher using 16X16 Matrix

- Muhammad Salam, Nasir Rashid, Shah Khalid, Muhammad Raees Khan, "A NXM Version of 5X5 Playfair Cipher for any Natural Language (Urdu as Special Case)"; World Academy of Science, Engineering and Technology 73 2011.

Index Terms
Computer Science  Security

Keywords
Playfair Cipher  Substitution  Cryptography  Network Security  Symmetric Key