Abstract

The technology dependent world we live in is producing information in abundance at an unparallel rate, so much so that it is extremely hard for us to keep the information secured and risk free anymore. With every passing day, the means and methods of breaking in being used by hackers are advancing and hence, there is an urgent need to upgrade the security systems currently in place and protect our data. In order to avoid the threats and risks of vital data to a certain point, several encryption algorithms have been used or have evolved over the recent time. Through this paper, we are proposing a digital image encryption technique, which can increase the security of a digital image by many folds with the help of using a combination of DES algorithm and elliptic curve cryptosystem. As a result of this, we made the data to be more secure and were able to retain the confidentiality and privacy much better as compared to using only a vanilla flavor of DES algorithm. Also the fact that the key being used in DES algorithm is being generated using a chaotic key generator, which is being guided with the help of Henon map, makes a big difference in the performance side of the things of the algorithm.
References


Index Terms

Computer Science  Security

Keywords

DES, ECG.