

Study of enhancing the modified Baptista type cryptosystem via the mutation technique idea

ABSTRACT

A chaos-based cryptography system that uses the ergodicity property of the simple low-dimensional and chaotic logistic equation was proposed by M.S Baptista. In the cryptography system, each "letter" has a particular site in the interval $(0, 1)$. In 2012, M.R.K. et al. proposed a modified Baptista Cryptosystem using Chaotic Fractal Functions to overcome the weaknesses of the cryptosystems. This study aims to enhance the modified Baptista's chaotic that has been proposed previously. The mutation technique was employed in this study. This study shows that the mutation technique theory was successfully implemented in the modified Baptista cryptosystem.