

A Novel Parametric Chaos-Based Switching System PCSS for Image Encryption

Authors : Mohamed Salah Azzaz, Camel Tanougast, Tarek Hadjem

Abstract : In this paper, a new low-cost image encryption technique is proposed and analyzed. The developed chaos-based key generator provides complex behavior and can change it automatically via a random-like switching rule. The designed encryption scheme is called PCSS (Parametric Chaos-based Switching System). The performances of this technique were evaluated in terms of data security and privacy. Simulation results have shown the effectiveness of this technique, and it can thereafter, ready for a hardware implementation.

Keywords : chaos, encryption, security, image

Conference Title : ICPIISL 2015 : International Conference on Privacy and Information Security Law

Conference Location : Paris, France

Conference Dates : June 25-26, 2015