Review of: "A Unified Framework for Cyber Oriented Digital Engineering using Integration of Explainable Chaotic Cryptology on Pervasive Systems"

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This research includes the study of a multi-year analysis of innovative techniques of cryptography as part of result dissemination in the empirical findings. This report includes different aspects of cryptography such as chaotic systems, hyperchaotic systems, S-Boxes, symmetric and asymmetric cryptography, security of images, and data over insecure communication channels.

But a few recent developments of a hybrid combination of linear systems as a key generation technique are used. Its discussion is missing in this study.

These references are:

"Efficient Hardware Implementation of Pseudo-Random Bit Generator using Dual-CLCG Method", Journal of Circuits, Systems, and Computers, vol. 30, no. 10, pp. 2150182, 2021
https://doi.org/10.1142/S0218126621501826

"Coupled Variable Input-LCG and Clock
Divider based Large Period Pseudo-Random Bit Generator on FPGA", IET Computers & Digital Techniques, Publisher: John Wiley & Sons, vol. 15, no. 5, pp. 349-361, 2021 https://doi.org/10.1049/cdt2.12027

"Secure Image Encryption Scheme using 4D-Hyperchaotic Systems based Reconfigurable Pseudo-Random Number Generator and S-Box", Integration, the VLSI Journal, Publisher: Elsevier, vol. 81, pp. 137-159, 2021
https://doi.org/10.1016/j.vlsi.2021.07.002

"Hardware Efficient Pseudo-Random Number Generator using Chen Chaotic System on FPGA", Journal of Circuits, Systems, and Computers, vol. 30, no. 5, pp. 2250043, 2022
https://doi.org/10.1142/S0218126622500438

"Hardware Efficient Hybrid Pseudo-Random Bit Generator using Coupled-LCG and Multistage LFSR with Clock Gating Network", Journal of Circuits, Systems, and Computers, 2022
https://doi.org/10.1142/S0218126623500391

If we are talking about the real-time implementation of cryptosystems, hardware performance is also an important aspect in terms of time and space complexity. Therefore, a discussion related to hardware performance should be included in this study.