

DAFTAR PUSTAKA

- Agarwal, S., ByramDharmika, M., Dhathri, S., Thanikaiselvan, V., Subashanthini, S., & Amirtharajan, R. (2024). 4D-Rossler Hyperchaotic System for Image Encryption and Decryption with High Security. *2024 10th International Conference on Communication and Signal Processing (ICCSP)*, 1016–1020. <https://doi.org/10.1109/ICCSP60870.2024.10544009>
- Al-Dayel, I., Nadeem, M. F., Khan, M. A., & Abraha, B. S. (2025). An image encryption scheme using 4-D chaotic system and cellular automaton. *Scientific Reports*, 15(1), 19499. <https://doi.org/10.1038/s41598-025-95511-y>
- Alexan, W., Gabr, M., Mamdouh, E., Elias, R., & Aboshousha, A. (2023). Color Image Cryptosystem Based on Sine Chaotic Map, 4D Chen Hyperchaotic Map of Fractional-Order and Hybrid DNA Coding. *IEEE Access*, 11, 54928–54956. <https://doi.org/10.1109/ACCESS.2023.3282160>
- Alghamdi, Y., & Munir, A. (2024). Image Encryption Algorithms: A Survey of Design and Evaluation Metrics. *Journal of Cybersecurity and Privacy*, 4(1), 126–152. <https://doi.org/10.3390/jcp4010007>
- Andono, P. N., & Setiadi, D. R. I. M. (2022). Improved Pixel and Bit Confusion-Diffusion Based on Mixed Chaos and Hash Operation for Image Encryption. *IEEE Access*, 10, 115143–115156. <https://doi.org/10.1109/ACCESS.2022.3218886>
- Ashillah, S., Adventino Gulo, S., Rahmi, Y., & Yandra Niska, D. (2025). Implementasi Algoritma Pengolahan Citra Digital untuk Perbaikan Kualitas

- Gambar. *Jurnal SISKOM-KB (Sistem Komputer dan Kecerdasan Buatan)*, 8(3), 274–280. <https://doi.org/10.47970/siskom-kb.v8i3.823>
- Balli, S., & Yilmaz, M. (2020). Multi-criteria usability evaluation of symmetric data encryption algorithms in fuzzy environment. *SN Applied Sciences*, 2(8), 1393. <https://doi.org/10.1007/s42452-020-3170-9>
- Chen, A., Lu, J., Lü, J., & Yu, S. (2006). Generating hyperchaotic Lü attractor via state feedback control. *Physica A: Statistical Mechanics and its Applications*, 364, 103–110. <https://doi.org/10.1016/j.physa.2005.09.039>
- Cormen, T. H., Leiserson, C. E., Rivest, R. L., & Stein, C. (2022). *Introduction to Algorithms, fourth edition*. MIT Press. <https://books.google.co.id/books?id=drZNEAAAQBAJ>
- Ding, L., & Ding, Q. (2020). The Establishment and Dynamic Properties of a New 4D Hyperchaotic System with Its Application and Statistical Tests in Gray Images. *Entropy*, 22(3), 310. <https://doi.org/10.3390/e22030310>
- Dornauer, B., & Felderer, M. (2024). Web Image Formats: Assessment of Their Real-World-Usage and Performance Across Popular Web Browsers. Dalam R. Kadgien, A. Jedlitschka, A. Janes, V. Lenarduzzi, & X. Li (Ed.), *Product-Focused Software Process Improvement* (hlm. 132–147). Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-49266-2_9
- Gafsi, M., Abbassi, N., Hajjaji, M. A., Malek, J., & Mtibaa, A. (2020). Improved Chaos-Based Cryptosystem for Medical Image Encryption and Decryption. *Scientific Programming*, 2020, 1–22. <https://doi.org/10.1155/2020/6612390>

- Geng, S., Guo, D., Zhang, X., Wang, Y., & Niu, Y. (2025). Image encryption scheme based on thorp shuffle and pseudo dequeue. *Scientific Reports*, 15(1), 11141. <https://doi.org/10.1038/s41598-025-95263-9>
- Görling, S., Rao, R. R. R., & Raake, A. (2023). Quality assessment of higher resolution images and videos with remote testing. *Quality and User Experience*, 8(1), 2. <https://doi.org/10.1007/s41233-023-00055-6>
- Hamadi, S. J., & Emad A. Mohammed. (2024). CHAOTIC SYSTEMS IN CRYPTOGRAPHY: AN OVERVIEW OF FEATURE-BASED METHODS. *Al-Salam Journal for Engineering and Technology*, 4(1), 164–171. <https://doi.org/10.55145/ajest.2025.04.01.016>
- Hamano, G., Imaizumi, S., & Kiya, H. (2023). Effects of JPEG Compression on Vision Transformer Image Classification for Encryption-then-Compression Images. *Sensors*, 23(7), 3400. <https://doi.org/10.3390/s23073400>
- Hosny, K. M., Kamal, S. T., & Darwish, M. M. (2022). Novel encryption for color images using fractional-order hyperchaotic system. *Journal of Ambient Intelligence and Humanized Computing*, 13(2), 973–988. <https://doi.org/10.1007/s12652-021-03675-y>
- Huang, C.-H., & Wu, J.-L. (2024). Unveiling the Future of Human and Machine Coding: A Survey of End-to-End Learned Image Compression. *Entropy*, 26(5), 357. <https://doi.org/10.3390/e26050357>
- Huang, Y., Bi, X., Liu, Y., & Li, Y. (2022). Development of a Novel Hyperchaos-Based Image Encryption Algorithm Consisting of Two Scrambling-Diffusion Operations. *Complexity*, 2022(1). <https://doi.org/10.1155/2022/8765268>

- Kryvenko, S., Lukin, V., & Vozel, B. (2024). Lossy Compression of Single-channel Noisy Images by Modern Coders. *Remote Sensing*, 16(12), 2093. <https://doi.org/10.3390/rs16122093>
- Li, L. (2024). Image encryption algorithm based on hyperchaos and DNA coding. *IET Image Processing*, 18(3), 627–649. <https://doi.org/10.1049/ipr2.12974>
- Li, S., & Li, M. (2024). A Hyperchaotic Lorenz and DNA-Encoded Image Encryption Algorithm. *Journal of Electrical and Computer Engineering*, 2024(1). <https://doi.org/10.1155/jece/8035005>
- Li, T., & Zhang, D. (2021). Hyperchaotic Image Encryption Based on Multiple Bit Permutation and Diffusion. *Entropy*, 23(5), 510. <https://doi.org/10.3390/e23050510>
- Lin, R., & Li, S. (2021). An Image Encryption Scheme Based on Lorenz Hyperchaotic System and RSA Algorithm. *Security and Communication Networks*, 2021, 1–18. <https://doi.org/10.1155/2021/5586959>
- Liu, Z., Li, J., & Di, X. (2022). A New Hyperchaotic 4D-FDHNN System with Four Positive Lyapunov Exponents and Its Application in Image Encryption. *Entropy*, 24(7), 900. <https://doi.org/10.3390/e24070900>
- Mahalakshmi, K., & Nagarajan, S. (2025). Comprehensive Review and Analysis of Image Encryption Techniques. *IEEE Access*, 13, 109783–109813. <https://doi.org/10.1109/ACCESS.2025.3578158>
- Makarichev, V., Lukin, V., Illiashenko, O., & Kharchenko, V. (2022). Digital Image Representation by Atomic Functions: The Compression and Protection of Data

- for Edge Computing in IoT Systems. *Sensors (Basel, Switzerland)*, 22. <https://doi.org/10.3390/s22103751>
- Neuhaus, P., Shlezinger, N., Dorpinghaus, M., Eldar, Y. C., & Fettweis, G. (2021). Task-Based Analog-to-Digital Converters. *IEEE Transactions on Signal Processing*, 69, 5403–5418. <https://doi.org/10.1109/TSP.2021.3095726>
- Niu, Y., & Zhang, X. (2020). A Novel Plaintext-Related Image Encryption Scheme Based on Chaotic System and Pixel Permutation. *IEEE Access*, 8, 22082–22093. <https://doi.org/10.1109/ACCESS.2020.2970103>
- Peng, Y., Fu, C., Cao, G., Song, W., Chen, J., & Sham, C.-W. (2024). JPEG-compatible Joint Image Compression and Encryption Algorithm with File Size Preservation. *ACM Transactions on Multimedia Computing, Communications, and Applications*, 20(4), 1–20. <https://doi.org/10.1145/3633459>
- SaberiKamarposhti, M., Ghorbani, A., & Yadollahi, M. (2024). A comprehensive survey on image encryption: Taxonomy, challenges, and future directions. *Chaos, Solitons & Fractals*, 178, 114361. <https://doi.org/10.1016/j.chaos.2023.114361>
- Shakir, H. R., Mehdi, S. A., & Hattab, A. A. (2023). A new four-dimensional hyper-chaotic system for image encryption. *International Journal of Electrical and Computer Engineering (IJECE)*, 13(2), 1744. <https://doi.org/10.11591/ijece.v13i2.pp1744-1756>
- Song, X., Shi, M., Zhou, Y., & Wang, E. (2022). An Image Compression Encryption Algorithm Based on Chaos and ZUC Stream Cipher. *Entropy*, 24(5), 742. <https://doi.org/10.3390/e24050742>

- Tiwari, A., Diwan, P., Diwan, T. D., Miroslav, M., & Samal, S. P. (2025). A compressed image encryption algorithm leveraging optimized 3D chaotic maps for secure image communication. *Scientific Reports*, 15(1), 14151. <https://doi.org/10.1038/s41598-025-95995-8>
- Urbaniak, I. A. (2024). Using Compressed JPEG and JPEG2000 Medical Images in Deep Learning: A Review. *Applied Sciences*, 14(22), 10524. <https://doi.org/10.3390/app142210524>
- Veena, & Ramakrishna. (2021). A Survey on Image Encryption using Chaos-based Techniques. *International Journal of Advanced Computer Science and Applications*, 12(1). <https://doi.org/10.14569/IJACSA.2021.0120145>
- Wang, S., Pan, J., Cui, Y., Chen, Z., & Zhan, W. (2024). Fast Color Image Encryption Algorithm Based on DNA Coding and Multi-Chaotic Systems. *Mathematics*, 12(20), 3297. <https://doi.org/10.3390/math12203297>
- Wen, H., Lin, Y., Kang, S., Zhang, X., & Zou, K. (2024). Secure image encryption algorithm using chaos-based block permutation and weighted bit planes chain diffusion. *iScience*, 27(1). <https://doi.org/10.1016/j.isci.2023.108610>
- Wen, H., Yang, L., Bai, C., Lin, Y., Liu, T., Chen, L., Hu, Y., & He, D. (2024). Exploiting high-quality reconstruction image encryption strategy by optimized orthogonal compressive sensing. *Scientific Reports*, 14(1), 8805. <https://doi.org/10.1038/s41598-024-59277-z>
- Ye, C., Tan, S., Wang, J., Shi, L., Zuo, Q., & Feng, W. (2025). Social Image Security with Encryption and Watermarking in Hybrid Domains. *Entropy*, 27(3), 276. <https://doi.org/10.3390/e27030276>

- Yi, G., & Cao, Z. (2024). An Algorithm of Image Encryption based on AES & Rossler Hyperchaotic Modeling. *Mobile Networks and Applications*, 29(5), 1451–1459. <https://doi.org/10.1007/s11036-023-02216-5>
- Zhang, B., & Liu, L. (2023). Chaos-Based Image Encryption: Review, Application, and Challenges. *Mathematics*, 11(11), 2585. <https://doi.org/10.3390/math11112585>
- Zhang, M., Tong, X.-J., Liu, J., Wang, Z., Liu, J., Liu, B., & Ma, J. (2020). Image Compression and Encryption Scheme Based on Compressive Sensing and Fourier Transform. *IEEE Access*, 8, 40838–40849. <https://doi.org/10.1109/ACCESS.2020.2976798>
- Zhang, W., Zheng, X., Xing, M., Yang, J., Yu, H., & Zhu, Z. (2025). Chaos-Based Color Image Encryption with JPEG Compression: Balancing Security and Compression Efficiency. *Entropy*, 27(8). <https://doi.org/10.3390/e27080838>
- Zhao, W., Chang, Z., Ma, C., & Shen, Z. (2023). A Pseudorandom Number Generator Based on the Chaotic Map and Quantum Random Walks. *Entropy*, 25(1), 166. <https://doi.org/10.3390/e25010166>
- Zia, U., McCartney, M., Scotney, B., Martinez, J., AbuTair, M., Memon, J., & Sajjad, A. (2022). Survey on image encryption techniques using chaotic maps in spatial, transform and spatiotemporal domains. *International Journal of Information Security*, 21(4), 917–935. <https://doi.org/10.1007/s10207-022-00588-5>

Zolfaghari, B., & Koshiba, T. (2022). Chaotic Image Encryption: State-of-the-Art, Ecosystem, and Future Roadmap. *Applied System Innovation*, 5(3), 57.
<https://doi.org/10.3390/asi5030057>