DAFTAR PUSTAKA

[1] "Pakai Ijazah Palsu saat Seleksi, PNS di Tanjungbalai Divonis 4 Tahun Penjara." Accessed: Jan. 08, 2025. [Online]. Available: https://www.detik.com/sumut/hukum-dan-kriminal/d-7645695/pakai-ijazah-palsu-saat-seleksi-cpns-pns-tanjungbalai-divonis-4-tahun-penjara

[2] "Kemendikbud Cabut Izin Operasional 23 Kampus Bermasalah - Nasional Katadata.co.id." Accessed: Jan. 08, 2025. [Online]. Available: https://katadata.co.id/berita/nasional/6482d594c12d7/kemendikbud-cabut-izin-operasional-23-kampus-bermasalah

[3] M. Z. Alfikri and R. Munir, "Pengembangan Sistem Pencatatan Ijazah Menggunakan Teknologi Blockchain," 2022.

[4] S. Nakamoto, "Bitcoin: A Peer-to-Peer Electronic Cash System," 2008. [Online]. Available: www.bitcoin.org

[5] S. Sakho, Z. Jianbiao, F. Essaf, and M. J. Mbyamm Kiki, "Blockchain: Perspectives and issues," *Journal of Intelligent and Fuzzy Systems*, vol. 37, no. 6, pp. 8029–8052, 2019, doi: 10.3233/JIFS-190449.

[6] D. Puthal, N. Malik, S. P. Mohanty, E. Kougianos, and G. Das, "Everything You Wanted to Know about the Blockchain: Its Promise, Components, Processes, and Problems," *IEEE Consumer Electronics Magazine*, vol. 7, no. 4, pp. 6–14, 2018. doi: 10.1109/MCE.2018.2816299.

[7] N. R. Rajalakshmi, V. Usha, and S. Krishnan, *Application of blockchain in automotive industry, waste management, and seed traceability*. 2021. doi: 10.1016/B978-0-12-824446-3.00012-0.

[8] A. Wilkie and S. S. Smith, *Blockchain: Speed, Efficiency, Decreased Costs, and Technical Challenges*. 2021. doi: 10.1108/978-1-83982-198-120211014.

[9] S. Yasmin, A. Turginbayeva, and A. A. Shaikh, *Unlocking the Future: The Evolution and Impact of Blockchain Technology*. Routledge, 2024. doi: 10.4324/9781003401452-3.

[10] P. Thilakavathy, S. Jayachitra, A. Aeron, N. Kumar, S. S. Ali, and M. Malathy, "Investigating Blockchain Security Mechanisms for Tamper-Proof Data Storage," in *2023 International Conference on Communication, Security and Artificial Intelligence, ICCSAI 2023*, 2023, pp. 926–930. doi: 10.1109/ICCSAI59793.2023.10421006.

[11] M. Shadab, P. Kumar, and S. Kumar, "A Blockchain-Based E-Voting System for India: Addressing Security Challenges with Aadhaar Card Authentication," in *Proceedings - 2023 3rd International Conference on Pervasive Computing and Social Networking, ICPCSN 2023*, 2023, pp. 1226–1231. doi: 10.1109/ICPCSN58827.2023.00207.

[12] A. A. Monrat, O. Schelén, and K. Andersson, "A survey of blockchain from the perspectives of applications, challenges, and opportunities," 2019,

Institute of Electrical and Electronics Engineers Inc. doi: 10.1109/ACCESS.2019.2936094.

[13] S. Oksuzer, G. Dalkilic, and C. Kosemen, "Enterprise Blockchain-Based Privacy Sharing on Internet of Things Devices." Accessed: Feb. 10, 2025. [Online]. Available: https://ieeexplore-ieee-org.ezproxy.ugm.ac.id/stamp/stamp.jsp?tp=&arnumber=9559018

[14] A. Koberl, H. Bock, and C. Steger, "A Novel Approach for Providing Client-Verifiable and Efficient Access to Private Smart Contracts," in *5th IEEE Conference on Dependable and Secure Computing, DSC 2022 and SECSOC 2022 Workshop, PASS4IoT 2022 Workshop SICSA International Paper/Poster Competition in Cybersecurity*, Institute of Electrical and Electronics Engineers Inc., 2022. doi: 10.1109/DSC54232.2022.9888820.

[15] M. Holbl, A. Kamisalic, M. Turkanovic, M. Kompara, B. Podgorelec, and M. Hericko, "EduCTX: An Ecosystem for Managing Digital Micro-Credentials," in *2018 28th EAEEIE Annual Conference, EAEEIE 2018*, 2018. doi: 10.1109/EAEEIE.2018.8534284.

[16] U. Rahardja, E. P. Harahap, and D. D. Christianto, "PENGARUH TEKNOLOGI BLOCKCHAIN TERHADAP TINGKAT KEASLIAN IJAZAH," Technomedia Journal (TMJ) . Accessed: Feb. 23, 2025. [Online]. Available: https://ijc.ilearning.co/index.php/TMJ/article/view/1107

[17] M. Najib, Widyawan, and Selo, "Landscape of Research on Blockchain in Indonesia: A Systematic Literature Review," *2024 8th International Conference on Information Technology, Information Systems and Electrical Engineering, ICITISEE 2024*, pp. 381–386, 2024, doi: 10.1109/ICITISEE63424.2024.10730106.

[18] M.-J. Lagarde, "Security Assessment of Authentication and Authorization Mechanisms in Ethereum, Quorum, Hyperledger Fabric and Corda," *EPFL*, 2019.

[19] B. A. Gerrardo, A. Harjoko, and N. Wei Lo, "On the Design of a Blockchain-based Fraud-prevention Performance Appraisal System," *IJCCS (Indonesian Journal of Computing and Cybernetics Systems)*, vol. 16, no. 2, p. 137, Apr. 2022, doi: 10.22146/ijccs.67669.

[20] V. Dhillon, "Blockchain Based Peer-Review Interfaces for Digital Medicine," *Frontiers in Blockchain*, vol. 3, 2020, doi: 10.3389/fbloc.2020.00008.

[21] D. S. K. Putra and A. Alfari, "IDNat-Blockchain: A Concept for Indonesia's National Blockchain," in *Proceeding - 2021 2nd International Conference on ICT for Rural Development, IC-ICTRuDev 2021*, Institute of Electrical and Electronics Engineers Inc., 2021. doi: 10.1109/IC-ICTRuDev50538.2021.9656496.

[22] W. Zou *et al.*, "Smart Contract Development: Challenges and Opportunities," *IEEE Transactions on Software Engineering*, vol. 47, no. 10, pp. 2084–2106, Oct. 2021, doi: 10.1109/TSE.2019.2942301.

[23] V. Gatteschi, F. Lamberti, C. Demartini, C. Pranteda, and V. Santamaria, "To Blockchain or Not to Blockchain: That Is the Question," *IT Prof*, vol. 20, no. 2, pp. 62–74, Mar. 2018, doi: 10.1109/MITP.2018.021921652.

[24] "Layered Architecture of Blockchain Ecosystem - GeeksforGeeks." Accessed: Jan. 08, 2025. [Online]. Available: https://www.geeksforgeeks.org/layered-architecture-of-blockchain-ecosystem/

[25] A. Endurthi and A. Khare, "Two-Tiered Consensus Mechanism Based on Proof of Work and Proof of Stake," in *Proceedings of the 2022 9th International Conference on Computing for Sustainable Global Development, INDIACom 2022*, 2022, pp. 349–353. doi: 10.23919/INDIACom54597.2022.9763215.

[26] J. Hu and K. Liu, "Raft consensus mechanism and the applications," in *Journal of Physics: Conference Series*, 2020. doi: 10.1088/1742-6596/1544/1/012079.

[27] D. A. Gol and N. Gondaliya, "Blockchain: A comparative analysis of hybrid consensus algorithm and performance evaluation," *Computers and Electrical Engineering*, vol. 117, 2024, doi: 10.1016/j.compeleceng.2023.108934.

[28] L. Lamport, R. Shostak, and M. Pease, "The Byzantine Generals Problem," *ACM Transactions on Programming Languages and Systems (TOPLAS)*, vol. 4, no. 3, pp. 382–401, Jul. 1982, doi: 10.1145/357172.357176.

[29] P. L. Aublin, S. Ben Mokhtar, and V. Quema, "RBFT: Redundant byzantine fault tolerance," *Proc Int Conf Distrib Comput Syst*, pp. 297–306, Jan. 2013, doi: 10.1109/ICDCS.2013.53.

[30] Y. Chen, P. Liu, and W. Zhang, "Raft consensus algorithm based on credit model in consortium blockchain," *Wuhan University Journal of Natural Sciences*, vol. 25, no. 2, pp. 146–154, 2020, doi: 10.19823/j.cnki.1007-1202.2020.0016.

[31] B. Abdorrahimi *et al.*, "Blockchain technology and raft consensus for secure physician prescriptions and improved diagnoses in electronic healthcare systems," *Sci Rep*, vol. 14, no. 1, 2024, doi: 10.1038/s41598-024-66746-y.

[32] A. Alexandridis, G. Al-Sumaidaee, R. Alkhudary, and Z. Zilic, "Making Case for Using RAFT in Healthcare Through Hyperledger Fabric," in *Proceedings - 2021 IEEE International Conference on Big Data, Big Data 2021*, 2021, pp. 2185–2191. doi: 10.1109/BigData52589.2021.9671934.

[33] "Transaction Manager - Quorum." Accessed: Feb. 10, 2025. [Online]. Available: https://goquorum.readthedocs.io/Security/Framework/Quorum%20Network%20Security/Transaction%20Manager/

[34] G. Capece, N. L. Ghiron, and F. Pasquale, “Blockchain technology: Redefining trust for digital certificates,” *Sustainability (Switzerland)*, vol. 12, no. 21, pp. 1–12, 2020, doi: 10.3390/su12218952.

[35] S. Lee and S. Kim, “Blockchain as a Cyber Defense: Opportunities, Applications, and Challenges,” *IEEE Access*, vol. 10, pp. 2602–2618, 2022, doi: 10.1109/ACCESS.2021.3136328.

[36] E. Shevchenko and R. Lunsford, “Blockchain Disruption in Finance: JPMorgan Chase’s Success Story and the Transfer of Quorum to ConsenSys,” 2023. [Online]. Available: http://www.aabri.com/copyright.html

[37] S. Surjandy, D. Wan, and K. Deniswara, “Analysis of Social Influence, Financial Risk, Benefits, Expense, and Regulation Factors Influencing the Intention to Use Non-Fungible Token (NFT),” in *Proceedings - 2023 International Conference on Networking, Electrical Engineering, Computer Science, and Technology, IConNECT 2023*, Institute of Electrical and Electronics Engineers Inc., 2023, pp. 150–155. doi: 10.1109/IConNECT56593.2023.10326803.

[38] E. Sutanto, R. Mulyana, F. C. S. Arisgraha, and G. Escrivá-Escrivá, “Integrating Blockchain for Health Insurance in Indonesia with Hash Authentication,” *Journal of Theoretical and Applied Electronic Commerce Research*, vol. 17, no. 4, pp. 1602–1615, Dec. 2022, doi: 10.3390/jtaer17040081.

[39] F. H. N. Al-mutar, O. N. Ucan, and A. A. Ibrahim, “Providing scalability and privacy for smart contract in the healthcare system,” *Optik (Stuttg)*, vol. 271, Dec. 2022, doi: 10.1016/j.ijleo.2022.170077.

[40] Presiden Republik Indonesia, “Undang-Undang Republik Indonesia Nomor 27 Tahun 2022 tentang Perlindungan Data Pribadi,” 2022.