

Raven: NFT Based Land Records System using Blockchain

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Abstract: *The outdated land records system has several flaws, including a lack of openness and vulnerability to fraud and manipulation. Conflicts and ambiguity about property ownership result from this. The blockchain-based NFT (non-fungible token)-based land records system is being offered as a remedy to get around these limitations and increase the security of property records. Using blockchain technology, data may be stored in a decentralized, safe, and open manner. It uses cryptographic methods to ensure that it is impervious to tampering and safe against cyberattacks. This technology is used by the NFT-based land records system to maintain dispersed land records. In this system, each property has a unique identification number that is stored as a token on the blockchain. The ownership, transaction history, and other pertinent information related to the property are all provided via this token. The land records are readily available and secure thanks to the NFT-based technology. Additionally, it allows for an expedited transfer of ownership and reduces the time and costs associated with real estate transactions. It is easier to keep track of the ownership and transaction history of properties when the system is easily integrated with other government systems and stakeholders. The land records system's transparency and accountability are strengthened by the NFT-based technology. A more stable real estate market and more investment in the sector may result from this. Blockchain, decentralization, scalability, and land records are all index terms.*

Keywords: Blockchain , NFT , Smart Contract , Land Record , Decentralization , Security , Cryptocurrency, Multi-Point Permission.

REFERENCES

- [1]. S. Nakamoto. (2009). Bitcoin: A Peer-to-Peer Electronic Cash System. [Online]. Available: <http://www.bitcoin.org/bitcoin.pdf>
- [2]. H. Hasan and K. Salah, "Combating deepfake videos using blockchain and smart contracts," IEEE Access, vol. 7, pp. 41596–41606, 2019.
- [3]. Z. Zheng, S. Xie, H. Dai, X. Chen, and H. Wang, "An overview of blockchain technology: Architecture, consensus, and future trends," in Proc. IEEE Int. Congr. Big Data (BigDataCongr.), Jun. 2017, pp. 557–564.
- [4]. M. Alharby, A. Aldweesh, and A. V. Moorsel, "Blockchain-based smart contracts: A systematic mapping study of academic research (2018)," in Proc. Int. Conf. Cloud Comput., Big Data Blockchain (ICCB), Nov. 2018, pp. 1–6.
- [5]. K. Vasan, M. Janosov, and A.-L. Barabási, "Quantifying NFT-driven networks in crypto art," Sci. Rep., vol. 12, no. 1, pp. 1–11, Feb. 2022.
- [6]. C. Cornish. Crypto kitties, Cryptopunks and the Birth of a Cottage Industry. Financial Times. Accessed: Sep. 12, 2022. [Online]. Available: <https://www.ft.com/content/f9c1422a-47c9-11e8-8c77-ff51caedcde6>
- [7]. Crypto kitties Whitepaper. CryptoKitties.co. Accessed: Sep. 12, 2022. [Online]. Available: <https://www.cryptokitties.co/technical-details>
- [8]. M. Marcobello. How Rare Pepe NFTs Reclaimed Pepe the Frog—And Why They Remain Relevant. Decrypt.co. Accessed: Sep. 12, 2022. [Online]. Available: <https://decrypt.co/95528/how-rare-pepe-nfts-reclaimed-pepethe-frog-and-why-they-remain-relevant>

- [9]. J G. Wang, “SoK: Exploring blockchains interoperability,” IACR Cryptol. ePrint Arch., vol. 2021, p. 537, Dec. 2021.
- [10]. Q. Wang, R. Li, Q. Wang, and S. Chen, “Non-fungible token (NFT): Overview, evaluation, opportunities, and challenges,” 2021, arXiv:2105.07447.
- [11]. L. Ante, “The non-fungible token (NFT) market and its relationship with Bitcoin and Ethereum,” FinTech, vol. 1, no. 3, pp. 216–224, Jun. 2022.
- [12]. W. Radomski, A. Cooke, P. Castonguay, J. Therien, E. Binet, and R. Sandford. (2018). Eip-1155: Multi Token Standard. Ethereum Improvement Proposals. [Online]. Available: <https://eips.ethereum.org/EIPS/eip1155>