E-Governance of Properties using Blockchain Technology

Panuganti Ravi[1], R. Jagadesh[2], Sai Kamal K[3], V. Rohith Varma[4], P. Nirupama[5]

Assistant Professor, Department of Computer Science and Engineering[1]
Students, Department of Computer Science and Engineering[2,3,4,5]
Raghu Institute of Technology, Visakhapatnam, AP, India

Abstract: *Blockchain technology can be utilized in various ways, and one of its potential uses is in the field of Real Estate. Real Estate transactions require high levels of security and transparency, which are characteristics provided by Blockchain technology. In the traditional process of buying a house, ownership is proven through a physical deed or agreement signed by the government, which is recorded in a ledger maintained by the government. However, if the ledger or deed is lost or damaged, there may not be any other concrete proof of ownership. To address this issue, we propose a system that allows for the creation of a digital deed through a smart contract, which is then recorded as a new block in the Blockchain. The distributed nature of Blockchain technology ensures the integrity of the records even in the case of a system failure or attack, as each node is present on multiple servers.*

Keywords: Blockchain technology, Real estate, Transparency, Ownership, Ledger, Smart Contract

REFERENCES

[1]. Ioannis Karamitsos, Maria Papadaki, Nedaa Baker Al Barghuthi, "Design of the Blockchain Smart Contract: A Use Case for Real Estate ", Journal of Information Security-January 2018.

[2]. Konstantinos Christidis, Michael Devetsikiotis, " Blockchains and Smart Contracts for the Internet of Things", Access IEEE vol-4, 2016

[3]. Zibin Zheng, Shaoan Xie, Hongning Dai, Xiangping Chen, Huaimin Wang," An Overview of Blockchain Technology: Architecture, Consensus, and Future Trends", 2017 IEEE International Congress on Big Data.

[4]. Avi Spielman, "Blockchain: Digitally Rebuilding the Real Estate Industry", Massachusetts Institute of Technology September, 2016

[5]. Hadelin de Ponteves, Kirill Eremenko, SuperDataScience Team, "Blockchain A-ZTM: Learn How To Build Your First Blockchain", View Online- https://www.udemy.com/course/build-yourblockchain- az/.

[6]. Bisola Asolo, "Genesis Block Explained",View Online - https://www.mycryptopedia.com/genesis-block-explained/, December 28, 2018

[7]. Ameer Rosic, "What Is Hashing? [Step-by-Step Guide-Under Hood Of Blockchain]" ,View Online-https://blockgeeks.com/guides/what- ishashing/.

[8]. Blockchain June 08, 2018, "Introducing Truffle, a Blockchain Smart Contract" by Mislav Javor.

[9]. Ashton, K. "That 'Internet of Things' Thing." RFID Journal, June 2009

[10]. Blockchain of Things "The Ultimate Blockchain Technology, Jan 10,2015.