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Online Voting System using Blockchain Technology

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Abstract: *A widespread mistrust towards the traditional voting system has made democratic voting in any country very critical. People have seen their fundamental rights being violated. Other digital voting systems have been challenged due to a lack of transparency. Most voting systems are not transparent enough; this makes it very difficult for the government to gain voters' trust. The reason behind the failure of the traditional and current digital voting system is that it can be easily exploited. The primary objective is to resolve problems of the traditional and digital voting system, which include any kind of mishap or injustice during the process of voting. Blockchain technology can be used in the voting system to have a fair election and reduce injustice. The physical voting systems have many flaws in it as well as the digital voting systems are not perfect enough to be implemented on large scale.Furthermore,the methodology for carrying out blockchain transactions during the process of voting has been elaboratedusing Blockchain Finally, the performance evaluation of the proposed system shows that the system can beimplemented in a large-scale population*

Keywords: E-polling, voting system, blockchain application, blockchain voting, E-voting, electoral system, blockchain, cryptographic hash, secure voting

REFERENCES

[1]. S. S. Hossain, S. A. Arani, M. T. Rahman, T. Bhuiyan, D. Alam, and M. Zaman, ``E-voting system using blockchain technology," in Proc.2nd Int. Conf. Blockchain Technol. Appl., Dec. 2019, pp. 113_117, doi: 10.1145/3376044.3376062.

[2]. B. Shahzad and J. Crowcroft, ``Trustworthy electronic voting using adjusted blockchain technology," IEEE Access, vol. 7, pp. 24477_24488, 2019, doi: 10.1109/ACCESS.2019.2895670. [3] F. P. Hjálmarsson, G. K. Hreiòarsson, M. Hamdaqa, and G. Hjálmtýsson, ``Blockchain-based E-Voting system," in Proc. IEEE 11th Int. Conf. CloudComput. (CLOUD), Jul. 2018, pp. 983_986.

[3]. M. S. Farooq, M. Khan, and A. Abid, ``A framework to make charity collection transparent and auditable using blockchain technology," Comput. Electr. Eng., vol. 83, May 2020, Art. no. 106588, doi: 10.1016/j.compeleceng.2020.106588.

[4]. N. M. Crosby, P. Pattanayak, S. Verma, andV. Kalyanaraman, ``Blockchain technology Beyond bitcoin," Sutardja Center Entrepreneurship Technol., Univ. California, Berkeley, CA, USA, Tech. Rep., Oct. 2015. Accessed: Jan. 24, 2018. [Online]. Available: http://scet.berkeley.edu/wpcontent/ uploads/BlockchainPaper.pdf

[5]. T. Dimitriou, ``Ef_cient, coercion-free and universally verifiable blockchain-based voting," Comput. Netw., vol. 174, Jun. 2020, Art. no. 107234, doi: 10.1016/j.comnet.2020.107234.

[6]. S. Shah, Q. Kanchwala, and H. Mi. (2016). Block Chain Voting System. Economist. [Online]. Available: https://www.economist.com/sites/default/_les/northeastern.pdf