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Automatic Banking System Using a Blockchain Technology

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Abstract: Our current banking system is based on a central server where every branch is connected to each other. If the server made any changes to the data of a branch then other branches get affected. In this system, Corruption can be easily occurred because of unauthorized access which is totally insecure in transaction systems. But, Blockchain is a secure system where the transactional history regarding crypto-currency cannot be modified or destructed. Since 2008, Blockchain has gained immense interest due to exclusion of third-party organization participation in monitoring of the transactions. Ethereum is a protocol which is based on Blockchain technology and has several benefits over other crypto-currency based system and is best suited for creating a secure lending system. Every Ethereum based system runs on 'Smart-Contracts' which are lines of code and makes the system automated. As the system gets automated, proper algorithms can make the system reliable and secure as each and every step of the system is maintained and executed by the algorithm inside the Smart-Contracts. Blockchain systems work with peer-to-peer networks and also uses a consensus algorithm that's why there is no possibility of data modification.

Keywords: Automatic Banking System, Ethereum, Smart-Contract

REFERENCES

- [1] Nir Kshetri "Can Block chain Strengthen the Internet of Things?," IT Professional, vol. 19, no. 4, pp. 68 72, May 2017,
- [2] Dr.Mahdi H. Miraz, "Block chain: Technology Fundamentals of the Trust Machine," Machine Lawyering, Chinese University of Hong Kong, 23rd December 2017.
- [3] Don Tap Scott and Alex Tap Scott, Block chain Revolution: How the Technology behind Bit coin Is Changing Money, Business, and the World, 1st Ed. New York, USA: Penguin Publishing Group, 2016 Mulliner C., Borgaonkar R., Stewin P., Seifert J.P. SMS-Based One- Time Passwords: Attacks and Defense. In: Proceedings of the Conference on Detection of Intrusions and Malware & Vulnerability Assessment (DIMVA), 2013.
- [4] Xu H.Y. China's Internet Financial Risks and Countermeasures. International Conference on Financial Management, Education and Social Science (FMESS 2017), 2017.
- [5] Akinyede R.O., Esese O.A. Development of a Secure Mobile E-Banking System. International Journal of Computer (IJC), Vol 26, No 1, 2017.
- [6] Gatali I.F., Lee K.Y., et.al a qualitative study on adoption of biometrics technologies: Canadian banking industry. In: Proceedings of the 18th Annual International Conference on Electronic Commerce: e-Commerce in Smart connected World, 2016.
- [7] Tray nor P., McDaniel P., La Porta T. Security for Telecommunications Networks. Springer, 2008.
- [8] Reaves B., Scaife N., Bates A., et.al Mo (bile) money, Mo (bile) problems: analysis of branchless banking applications in the developing world. In: Proceedings of the 24th USENIX Security Symposium (USENIX Security 2015), USENIX Association, 2015
- [9] Haupert V., Müller T. On App-based Matrix Code Authentication in Online Banking. Technical Report Freidrich-Alexander-Universität Erlangen Nurnberg, 2016.

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- [10] Schueffel P. Taming the Beast: A Scientific Definition of Fintech. Journal of Innovation Management, 4(4) 32-54, 2017.
- [11] Haupert V., Maier D., Müller T. Paying the Price for Disruption: How a FinTech Allowed Account Takeover. In: Proceedings of the 1st Reversing and Offensive-oriented Trends Symposium, 2017.
- [12] Rajput Q., Khan N. S., Larik A., Haider S. Ontology Based Expert- System for Suspicious Transactions Detection, Canadian Center of Science and Education, Computer and Information Science; Vol. 7, No. 1, 2014.
- [13] Leonard, K. J. Detecting Credit Card Fraud Using Expert Systems. Computers and Industrial Engineering 25(1-4), 103-1, 1993.
- [14] Quah J. T. S., Sriganesh M. Real-time credit card fraud detection using computational intelligence, Expert Systems with Applications 35 (4), 1721–1732, 2008.
- [15] Abdel Hamid D., Soltani K., Ouassaf an Automatic Bank Fraud De-tection Using Support Vector Machines. The International Conference on Computing Technology and Information Management (ICCTIM). Society of Digital Information and Wireless Communication, 2014.

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