

# Implementation of Healthcare Record System Powered by Blockchain

**Radhika Sharma<sup>1</sup>, Radhika Bhusange<sup>2</sup>, Prof. Mohit K. Popat<sup>3</sup>**

U.G. Students, Department of Computer Science and Engineering<sup>1,2</sup>

Assistant Professor, Department of Computer Science and Engineering<sup>3</sup>

Jawaharlal Darda Institute of Engineering and Technology, Yavatmal, Maharashtra, India  
sharmaradhika0577@gmail.com<sup>1</sup>, radhikabhusange18@gmail.com<sup>2</sup>, mohit.popat@jdi.ac.in<sup>3</sup>

**Abstract:** *Blockchain as a technology was created to speed up financial exchanges, do away with the requirement for a reliable third party to notarize and verify transactions, and safeguard data confidentiality and privacy. The blockchain's new organisational structure has been created to meet the demand for this technology in other industries, including e-health, tourism, and energy. In order to improve interoperability and enable patients, hospitals, clinics, and other medical stakeholders to communicate data among themselves, this paper is concentrating on using Blockchain to manage and distribute electronic health and medical records. The entities taking part in the built-in chain network determine which Blockchain architecture is employed. Although the implementation of blockchain technology may eliminate duplication and offer carers reliable patient records, it still comes with few challenges which could infringe patients' privacy, or potentially compromise the whole network of stake holders.*

**Keywords:** Medical information sharing, Blockchain-based EHR, Consent based Health data sharing, Healthcare Record Management

## REFERENCES

- [1]. X. Yue, H. Wang, D. Jin, M. Li, and W. Jiang, "Healthcare data gateways: found healthcare intelligence on blockchain with novel privacy risk control," *Journal of Medical Systems*, vol. 40, no. 10, p. 218, 2016
- [2]. V. B, S. N. Dass, S. R and R. Chinnaiyan, "A Blockchain based Electronic Medical Health Records Framework using Smart Contracts," 2021 International Conference on Computer Communication and Informatics (ICCCI), Coimbatore, India, 2021, pp. 1-4, doi: 10.1109/ICCCI50826.2021.9402689.
- [3]. A. Azaria, A. Ekblaw, T. Vieira, and A. Lippman, "MedRec: Using Blockchain for Medical Data Access and Permission Management," in 2016 2nd International Conference on Open and Big Data (OBD), Vienna, Austria: IEEE, Aug. 2016, pp. 25–30. doi: 10.1109/OBD.2016.11.
- [4]. S. M. HosseiniBamakan, S. GhasemzadehMoghaddam, and S. Dehghan Manshadi, "Blockchain-enabled pharmaceutical cold chain: Applications, key challenges, and future trends," *J. Clean. Prod.*, vol. 302, p. 127021, Jun. 2021, doi: 10.1016/j.jclepro.2021.127021.
- [5]. L. Cardoso, F. Marins, F. Portela, M. Santos, A. Abelha, and J. Machado, "The Next Generation of Interoperability Agents in Healthcare," *Int. J. Environ. Res. Public. Health*, vol. 11, no. 5, pp. 5349–5371, May 2014, doi: 10.3390/ijerph110505349.
- [6]. S. Khezr, M. Moniruzzaman, A. Yassine, and R. Benlamri, "Blockchain Technology in Healthcare: A Comprehensive Review and Directions for Future Research," *Appl. Sci.*, vol. 9, no. 9, p. 1736, Apr. 2019, doi: 10.3390/app9091736.