

To Design a Routing Module for IoT Routing Protocol to Modification and Manipulation Attacks

Suresh K¹, Afroze Banu², Devika N³, Pavan Kumar⁴, Dhanvi Raj Y M⁵

Asst. Professor, Department of CSE¹

Students, Department of CSE^{2,3,4,5}

Rao Bahadur Y Mahabaleswarappa Engineering College, Ballari, Karnataka, India

Abstract: *The Internet of Things (IoT) is a rapidly growing field that has the potential to transform our world by connecting devices and enabling them to communicate and share data. However, as the number of connected devices grows, so does the potential for attacks on IoT networks. In particular, routing protocols used in IoT networks are vulnerable to modification and manipulation attacks, which can lead to unauthorized access and data theft. To address this issue, a routing module for IoT routing protocols can be designed that is resistant to modification and manipulation attacks. The module can incorporate various security mechanisms such as encryption, authentication, and integrity checks to ensure that the routing information is secure and has not been tampered with. Additionally, the module can incorporate anomaly detection techniques to identify and mitigate attacks in real-time.*

Keywords: Artificial Intelligence (AI), Review, Drugs, Doctor

REFERENCES

- [1]. Zhang, L., Wang, Y., Zhao, H., Liu, X., & Li, L. (2021). A Lightweight Secure Routing Protocol for IoT Networks Based on Blockchain. *IEEE Internet of Things Journal*, 8(3), 1554-1563.
- [2]. Raza, M., Baig, I., Al-Fuqaha, A., & Guizani, S. (2021). A Novel Blockchain-Based Secure Routing Protocol for IoT Networks. *IEEE Internet of Things Journal*, 8(4), 2678-2689.
- [3]. Alazab, M., Kausar, S., Alazab, M., & Venkatraman, S. (2021). Machine learning based detection of routing attacks in IoT networks. *IEEE Internet of Things Journal*, 8(5), 3391-3403.
- [4]. Zhang, Y., Yang, C., Huang, X., Yu, F. R., & Li, Z. (2021). A Novel Defense Mechanism for IoT Routing Protocols Against False Data Injection Attacks. *IEEE Internet of Things Journal*, 8(4), 2835-2844.
- [5]. Zhang, X., Chen, X., Yu, H., & Ma, J. (2020). A secure and efficient IoT routing protocol based on blockchain and edge computing. *Journal of Ambient Intelligence and Humanized Computing*, 11(9), 4013-4023.