Review of: "Design of a Smart Motorcycle Parking System based on Wireless Sensor Network (WSN) in a Multilevel Building at Universitas Pendidikan Indonesia"

Pallavi Joshi[1]

1 Amrita Vishwa Vidyapeetham (Deemed University)

Potential competing interests: No potential competing interests to declare.

The Smart Motorcycle Parking System based on Wireless Sensor Network (WSN), designed for the multilevel building at Universitas Pendidikan Indonesia (UPI), appears to be a comprehensive solution to address the issues of unauthorized parking, congestion, and lack of efficient management. Here are some suggestions for improvement:

User Accessibility: While the website's functionalities for administrators are well-documented, it would be helpful to provide a more detailed explanation of the user interface and functionalities for motorcycle riders.

Scalability: Consider discussing the system's scalability for potential future expansions or modifications, especially if the number of users or parking spaces increases.

Security Measures: Address the security aspects of the system, such as data encryption, secure communication protocols, and measures taken to prevent unauthorized access to the system.

Energy Efficiency: Discuss the energy consumption of the system, especially for IoT devices like the ESP32. Implementing energy-efficient protocols or renewable energy sources could enhance sustainability.

User Education: Consider implementing an education program or guidelines for motorcycle riders to ensure they understand the system and encourage responsible parking.

Weather Resistance: Ensure that the system components are weather-resistant, especially considering the outdoor nature of motorcycle parking.

Future Enhancements: Discuss potential future enhancements or features that could be integrated into the system, such as predictive analytics for parking space availability or additional safety features.

Cost Consideration: Provide insights into the cost implications of implementing and maintaining the system, including any potential cost savings in the long run.

Regulatory Compliance: Ensure that the system complies with local regulations and standards, especially considering its implementation in a university setting.

Acknowledgment of Limitations: Acknowledge any limitations or challenges faced during the development and testing

phases, providing transparency about the system's capabilities.