

Peer Review

Review of: "Resonant Inductive Coupling Power Transfer for Mid-Sized Inspection Robot"

Yu Gu Gu¹¹. Tianjin University, China

Comments to the Author

This paper describes a wireless power transmission system for medium-sized inspection mobile robots that can efficiently transmit 109.7 W of power over a distance of 1 metre. However, some questions need to be addressed.

1. The references are rather old and need to include some new references from high-level journals of recent years, for example:

1. C. Chen, C. Jiang, Y. Wang, Y. Fan, B. Luo and Y. Cheng, "Compact Curved Coupler With Novel Flexible Nanocrystalline Flake Ribbon Core for Autonomous Underwater Vehicles," in IEEE Transactions on Power Electronics, vol. 39, no. 1, pp. 53-57, Jan. 2024.
2. Y. Gu, J. Wang, Z. Liang, and Z. Zhang, "Communication-free power control algorithm for drone wireless in-flight charging under dual-disturbance of mutual inductance and load," IEEE Trans. Ind. Inform., vol. 20, no. 3, pp. 3703-3714, March 2024.
3. Y. Liu, C. Liu, W. Wang, S. Liu and Y. Chen, "A Novel Wired/Wireless Hybrid Multiport Energy Router for Dynamic EV Energy Internet With Grid-Tied and Islanded Operations," in IEEE Transactions on Industrial Electronics, vol. 71, no. 4, pp. 3559-3571, April 2024, doi: 10.1109/TIE.2023.3274865.
4. Y. Gu, J. Wang, Z. Liang, and Z. Zhang, "A wireless in-flight charging range extended PT-WPT system using S/single-inductor-double-capacitor compensation network for drones," IEEE Trans. Power Electron., vol. 38, no. 10, pp. 11847-11858, Oct. 2023.
5. K. Chen and Z. Zhang, "In-flight wireless charging: a promising application-oriented charging technique for drones," IEEE Ind. Electron. Mag., vol. 18, no. 1, pp. 6-16, March 2024.
6. Y. Gu, J. Wang, Z. Liang, and Z. Zhang, "Mutual-inductance-dynamic-predicted constant current control of LCC-P compensation network for drone wireless in-flight charging," IEEE Trans. Ind. Electron., vol. 69, no. 12, pp. 12710-12719, Dec. 2022.

2. The main contributions of the article are suggested to be further summarized.

3. Oscilloscope waveforms that can demonstrate the validity of the thesis in the experiment are suggested to be added.

4. Overall, this is a very interesting paper, and it is recommended to add pictures to enhance the readability of the paper.

Declarations

Potential competing interests: No potential competing interests to declare.