

Design and Implementation of Wireless Dynamic Charging on Electric Vehicle with Voice Command Assist and Path Following Features

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Abstract: *This paper presents the design and implementation of a dynamic wireless charging car equipped with voice command assist and path following features. The proposed system aims to enhance the convenience, usability, and autonomous capabilities of electric vehicles. The combination of dynamic wireless charging, voice command functionality, and path following technology offers a comprehensive solution for electric vehicles. The proposed car utilizes wireless charging technology, allowing it to charge wirelessly while in motion. Additionally, voice command assist and path following features are incorporated to improve user experience and automate navigation. The paper discusses the design considerations, system architecture, and implementation details of the dynamic wireless charging car with its innovative features. Experimental results demonstrate the effectiveness and feasibility of the proposed system, paving the way for future advancements in electric vehicle technology. While the presented system has exhibited a potential outcome, further research and development are required to overcome technical challenges and ensure its feasibility, efficiency, and safety. However, the proposed system holds promise to revolutionize electric vehicle technology, offering a seamless and autonomous driving experience while providing efficient charging capabilities*

Keywords: Dynamic wireless Charging, Voice Command Assist, Path Following, Electric Vehicle, Road Safety

REFERENCES

- [1]. Harry Humfrey, Hongjian Sun, Jing Jiang “Dynamic Charging of Electric Vehicles Integrating Renewable Energy: A Multi-Objective Optimisation Problem,” THE INSTITUTION OF ENGINEERING & TECHNOLOGY (IET) RESEARCH JOURNALS, June 2019, IET Smart Grid 2(2), DOI:10.1049/iet-stg.2018.0066, License: CC BY-NC 3.0 .
- [2]. Prananjali Koppad, Vishnu Agarwal “Sensor Based Black Line Follower Robot,” INTERNATIONAL JOURNAL OF ENGINEERING RESEARCH & TECHNOLOGY (IJERT), VOLUME 03, ISSUE 09, Paper ID: IJERTV3IS090023.
- [3]. Tahir Aja Zarma, Ahmadu Adamu Galadima, Maruf A Aminu “A Review of Motors for Electric Vehicles”, July 2019, Conference: International Power Engineering Exhibition & Conference, Nigeria, At: Abuja.
- [4]. Krishna Veer Singh, Hari Om Bansal, Dheerendra Singh, Birla Institute of Technology and Science, 08 Mar 2019-Journal of Modern Transportation (Springer Singapore)-Vol. 27, Iss: 2, pp 77-107.