IJARSCT



International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

 $International\ Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary\ Online\ Journal$

Volume 3, Issue 12, May 2023

Electric Vehicle Mileage Booster

Mr Shivraj Singh, Mr. Sameer Ganorkar, Mr Sudarshan Tembhurne, Prof. A. M. Dodke

Department of Electrical engineering Nagpur Institute of Technology Nagpur, India

Abstract: Electric power serves as the primary energy source in this system, providing numerous advantages, including high efficiency in power conversion. The concept behind this idea is that in order to increase the mileage of a vehicle through solar. If we tend to increase the mileage of the vehicle, a bigger battery is typically used. However, this leads to an increase in the weight of the motor, which in turn increases the power of the vehicle. To address this issue, a new system has been proposed which utilizes flexible solar panels that are designed as stickers to be attached to the surface of the vehicle. This system aims to provide an additional source of power for the vehicle, allowing it to move more efficiently.

Keywords: Direct current motor drive; Non-linear control; Fuzzy logic controller; Intelligent fuzzy control usingIoT

REFERENCES

- [1] Jones, W.D., "Hybrids to the rescue [hybrid electric vehicles]", IEEE Spectrum, Vol. 40(1), 2003, pp. 70 71.
- [2] Jones, W.D., "Take this car and plug it [plug-in hybrid vehicles]", Spectrum, IEEE, Vol. 42, Issue 7, July 2005, pp. 10 13.
- [3] HyunjaeYoo; Seung-Ki Sul; Yongho Park; Jongchan Jeong, "System Integration and Power-Flow Management for a Series Hybrid Electric Vehicle Using Supercapacitors and Batteries", IEEE Trans. on Industry Applications, Vol. 44, Issue 1, Jan.-Feb. 2008, pp. 108 114.
- [4] Haddoun, A.; Benbouzid, M. E. H.; Diallo, D.; Abdessemed, R.; Ghouili, J.; Srairi, K., "A Loss-Minimization DTC Scheme for EV Induction Motors", IEEE Trans on Vehicular Technology, Vol. 56(1), Jan. 2007, pp. 81 88.
- [5] Jinyun Gan; Chau, K.T.; Chan, C.C.; Jiang, J.Z., "A new surface-inset, permanent-magnet, brushless DC motor drive for electric vehicles", IEEE Transactions on Magnetics, Vol. 36, Issue 5, Part 2, Sept 2000, pp. 3810 3818.
- [6] Chau, K.T.; Chan, C.C.; Chunhua Liu, "Overview of Permanent-Magnet Brushless Drives for Electric and Hybrid Electric Vehicles", IEEE Trans. on Industrial Electronics, Vol. 55, Issue 6, June 2008, pp. 2246 2257., Vol. 36, Issue 1, Jan.-Feb. 2000, pp. 111 121.

DOI: 10.48175/568

