

Renewable Energy Sources Based Electric Vehicle Charging Considering Radio Frequency Identification

Mr. Pol Yash Shashikant¹, Mr. Sonavane Rahul Dnyaneshwar²,

Mr. Ranmale Suyog Vinayak³, Mr. Pawar A. B.⁴

Students, Bachelor of Electrical Engineering^{1,2,3}

Guide, Bachelor of Electrical Engineering⁴

SND College of Engineering & Research Centre, Yeola, India

Abstract: *An electric vehicle is a new and upcoming technology in the transportation and power sector that has many benefits in terms of economic and environmental. This study presents a comprehensive review and evaluation of various types of electric vehicles and their associated equipment in particular battery chargers and charging stations. A comparison is made on the commercial and prototype electric vehicles in terms of electric range, battery size, charger power, and charging time. The various types of charging stations and standards used for charging electric vehicles have been outlined and the impact of electric vehicle charging on utility distribution systems is also discussed.*

Keywords: Battery charger, charging station, electric vehicle, standards

REFERENCES

- [1]. Maria Carmen Falvo, Danilo Sbordone and I. Safak Bayram, Michael Devetsikiotis, "EV Charging Stations and Modes: International Standards", 2014 International Symposium on Power Electronics, Electrical Drives, Automation and Motion.
- [2]. Qin Yan, Bei Zhang, Mladen Kezunovic, "Optimized Operational Cost Reduction for an EV Charging Station Integrated with Battery Energy Storage and PV generation", IEEE Transactions on Smart Grid (Volume: 10, Issue: 2, March 2019)
- [3]. Michail Vasiladiotis, Alfred Rufer, "A Modular Multiport Power Electronic Transformer with Integrated Split Battery Energy Storage for Versatile Ultra-Fast EV Charging Stations", IEEE TRANSACTIONS ON INDUSTRIAL ELECTRONICS 2013.
- [4]. and Technology, an International Journal 2018