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# A Survey on "Electric Vehicle Charging Station App"

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Abstract: The latest innovations like electric cars are vying for attention. Less childcare, fuel economy and convenience are some of the benefits it has. The U.S. Environmental Protection Agency has stepped up with its recent efforts to reduce greenhouse gas emissions that cause global warming and to prevent price increases for petroleum products. In addition, the cost of photovoltaic electricity is falling rapidly. Therefore, it is suggested that photovoltaic energy will be cheaper in the future. But in Japan, the largest amount of power generated by solar technology has had a devastating effect on its electrical infrastructure. This concept provides constant power for EV charging stations. It also offers some opportunities to generate electricity from eco-friendly EV charging stations. Electricity is used to charge the electric car. This article also presents the power management and control system for the electric vehicle charging station. Wind turbines and solar photovoltaic arrays are used together to replace the energy of oil and reduce pollution from carbon emissions.

Keywords: Electric Vehicle Charging

#### REFERENCES

- [1]. Location Information Service Platform Based on GPS/BaiduMap [J]. Huang Wenhui. Computer application & Software.2015
- [2]. Yongmin Zhang, Lin Cai, "Dynamic Charging Scheduling for EV Parking Lots With Photovoltaic Power System," 2017 IEEE 86th Vehicular Technology Conference (VTC-Fall), 2017, pp. 1–2.
- [3]. G.R.Chandra Mouli, P.Bauer, M.Zeman, "System design for a solar powered electric vehicle charging station for workplaces," Applied Energy Volume 168, 15 April 2016, pp. 434–443.
- [4]. S. Akshya, Anjali Ravindran, A. Sakthi Srinidhi, Subham Panda, Anu G. Ku- mar, "Grid integration for electric vehicle and photovoltaic panel for a smart home," 2017 International Conference on Circuit, Power and Computing Tech- nologies (ICCPCT), April 2017.
- [5]. Gautham RamChandra Mouli, Peter Vanduijsen, Tim Velzeboer, Gireesh Nair, Yunpeng Zhao, Ajay Jamodkar, Olindo Isabella, Sacha Silvester, Pavol Bauer, Miro Zeman, "Solar Powered E-Bike Charging Station with AC, DC and Con-tactless Charging," 20th European Conference on Power Electronics and Ap-plications (EPE'18 ECCE Europe), 2018, pp. 1–10.
- [6]. Wajahat Khan, Furkan Ahmad, Mohammad Saad Alam, "Fast EV charging station integration with grid ensuring optimal and quality power exchange," International Journal of Engineering Science and Technology, 2017. Volume 22, Issue 1, February 2019, pp. 143–152.
- [7]. Mukesh Singh, Praveen Kumar, Indrani Kar, "A Multi Charging Station for Electric Vehicles and Its Utilization for Load Management and the Grid Sup- port," 2013 IEEE Transactions on Smart Grid, 2013, pp. 1026–1037
- [8]. N. Shlayan, K. Challapali, D. Cavalcanti, T. Oliveira and Y. Yang, "A novel illuminance control strategy for roadway lighting based on greenshields macroscopic traffic model", IEEE Photon. J, vol. 10, no. 1, Feb. 2018.
- [9]. H. Belkamel, K. Hyungjin, K. Beywongwoo, Y. Shin and S. Choi, "Bi-directional single-stage interleaved totem-pole ac-dc converter with high frequency isolation for on-board EV charger", Proc. IEEE Energy Convers. Congr. Expo, pp. 6721-6724, Sep. 2018.
- [10]. D.M. Kim, P. Benoliel, D.-K. Kim, T. H. Lee, J. W. Park and J.-P. Hong, "Framework development of series hybrid powertrain design for heavy-duty vehicle considering driving conditions", *IEEE Trans. Veh. Technol*, vol. 68, no. 7, pp. 6468-6480, Jul. 2019.

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[11]. Hengbing Zhao, Andrew Burke, "An intelligent solar powered battery buffered EV charging station with solar electricity forecasting and EV charging load projection functions," 2014 IEEE International Electric Vehicle Conference (IEVC), December 2015, pp. 1–7.

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