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Electric Vehicle Technology Battery Management - Review

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Abstract: *In a day today life there is a tremendous development in Electric vehicle technology. Amount of energy stored in EVT vehicle is one of the important issues regarding it. Energy density is the amount of energy that can be stored in a battery per unit of weight or volume. Higher energy density means that an EV can travel further on a single charge, making it more convenient for drivers. The transportation sector is generally thought to be contributing up to 25% of all greenhouse gases (GHG) emissions globally. Hence, reducing the usage of fossil fuels by the introduction of electrified powertrain technologies such as hybrid electric vehicle (HEV), battery electric vehicle (BEV) and Fuel Cell Electric Vehicle (FCEV) is perceived as a way towards a more sustainable future. When we use IC engine, there is a large amount of pollution, At a time when the fuel prices are rocketing sky high, the daily running cost of a vehicle and its cost of ownership are hitting the roof and there is a dire need to protect our environment, alternative means of transport are few. Electric vehicle are slow expensive with limited range the solution comes in the form of electrical vehicle.*

Keywords: EVT, HEV, BEV

REFERENCES

[1].Giannakis, E.; Serghides, D.; Dimitriou, S.; Zittis, G. Land transport CO_2 emissions and climate change: Evidence from Cyprus. *Int. J. Sustain. Energy* 2020, *39*, 634–647. [Google Scholar]
[2]. Khadake, S. B., Padavale, P. V., Dhere, P. M., &Lingade, B. M. Automatic Hand Dispenser and Temperature Scanner for Covid-19 Prevention.
[3]. Arif, S.M.; Lie, T.T.; Seet, B.C.; Ayyadi, S.; Jensen, K. Review of Electric Vehicle Technologies, Charging Methods, Standards and Optimization Techniques. Electronics 2021, 10, 1910. [Google Scholar] [CrossRef]
[4]. KHADAKE, S. B. DETECTING SALIENT OBJECTS OF NATURAL SCENE IN A VIDEO'S USING SPATIO-TEMPORAL SALIENCY & COLOUR MAP. *JournalNX*, *2*(8), 30-35.
[5].Zhao, G.; Baker, J. Effects on environmental impacts of introducing electric vehicle batteries as storage—A case study of the United Kingdom. Energy Strategy Rev. 2022, 40, 100819. [Google Scholar]
[6].Razmjoo, A.; Ghazanfari, A.; Jahangiri, M.; Franklin, E.; Denai, M.; Marzband, M.; Astiaso Garcia, D.; Maheri, A. A Comprehensive Study on the Expansion of Electric Vehicles in Europe. Appl. Sci. 2022, 12, 11656. [Google Scholar]
[5].D. S. Suresh, Sekar R, Mohamed ShafiullaS,"Battery Monitoring system Based on PLC", InternationalJournalofScienceandResearch,vol.3issue6.pp.128-133,2012.
[6]. A. Sardar, H. Naseer, E. Qazi, and W. Ali "Smart Grids Wide Area Monitoring System for UPS BatteriesOver GSM" 2nd International Multidisplinary Conference for Better Pakistan Vol.1, pp. 159-158, May 2012,2015.
[7].C. Hommalai and S. Khomfoi "Battery Monitoring System by Detecting Dead Battery Cells", InternationalJournalofScienceandResearch,Vol.1,pp.5-15,2011.
[8]. Amjad S, Neelakrishnan S, Rudramoorthy R. Review of design considerations and technological challenges for successful development and deployment of plug-in hybrid electric vehicles. Renew Sustain En.
[9]. Qianqian Zhang, Cunjin Li, Yuqing Wu, Analysis of Research and Development Trend of the Battery Technology in Electric Vehicle with the Perspective of Patent, Energy Procedia,Volume 105,2017,Pages 4274-4280,ISSN 1876-6102, https://doi.org/10.1016/j.egypro.2017.03.918.

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[10]. Khadake, S. B., Dolli, S. P., Rathod, M. K., Waghmare, M. O., &Deshpande, M. A. (2016). An Overview of Intelligent Traffic Control System Using Plc and Use of Current Data of Vehicle Travels. *JournalNX*, 1-4.

[11].A. S. Dhotre, S. S. Gavasane, A. R. Patil, and T. Nadu, "Automatic Battery Charging Using Battery HealthDetection"InternationalJournalofEngineering&Technology.Innovativesciencevol.1,no.5,pp.486–490,2014.

[12]. Dudgikar, A. B., Ingalgi, A. A. A., Jamadar, A. G., Swami, O. R., Khadake, S. B., &Moholkar, S. V. Intelligent Battery Swapping System for Electric Vehicles with Charging Stations Locator on IoT and Cloud Platform.

[13]. KHADAKE SUHAS .B. (2021). DETECTING SALIENT OBJECTS IN A VIDEO'S BY USINGSPATIO-TEMPORAL SALIENCY & COLOUR MAP. *International Journal of Innovations in Engineering Research and Technology*, *3*(8), 1–9.

[14].S. A. Mathew, R. Prakash, and P. C. John "A smart wireless battery monitoring system for electric vehicles,"Int.Conf.Intel.Syst.Des.Appl.ISDA,pp.189–193,2012.

[15].S.Bacquet, M.Maman, "Radio frequencycommunicationsforsmartcellsin battery pack for electric vehicle", Electric Vehicle Conference (IEVC) 2014IEEEInternational,pp.1-4,2014.

[16].Khadake, S. B., Nakka, M. R. M., Gajghate, M. A., &Patil, M. S. A. A paper on "Finding change in moving object using mean shift algorithm"

[17]. Sharma, S., Panwar, A. K., &Tripathi, M. M. (2020). Storage technologies for electric vehicles. *Journal of traffic and transportation engineering (english edition)*, *7*(3), 340-361.

[18].Khadake, S., Kawade, S., Moholkar, S., Pawar, M. (2024). A Review of 6G Technologies and Its Advantages Over 5G Technology. In: Pawar, P.M., et al. Techno-societal 2022. ICATSA 2022.Springer, Cham. https://doi.org/10.1007/978-3-031-34644-6_107

[19].Hongwen He, Fengchun Sun, Zhenpo Wang, Cheng Lin, Chengning Zhang, RuiXiong, Junjun Deng, Xiaoqing Zhu, PengXie, Shuo Zhang, Zhongbao Wei, Wanke Cao, Li Zhai, China's battery electric vehicles lead the world: achievements in technology system architecture and technological breakthroughs,Green Energy and Intelligent Transportation, Volume 1, Issue 1,2022,100020,ISSN 2773-1537