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A Study on Effectiveness of NEP 2020 in the Improvement of Vehicle Technology

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Abstract: ***The NEP - 2020 (National Education Policy) is the most development scheme for revolutionary in every sense. This Policy focuses on the multiple views such as early childhood care needs, Innovative and Quality of education and participations of the current curriculum, it executes the education and technologies through the policy. The purpose of this paper to view the effectiveness of NEP 2020 education in the improvement of Vehicle Technology in current and future period. In these we have qualified about the emerging of vehicle technologies using the NEP 2020 Educational scheme. The Policy notes that it provides and extensive use of technology in learning and also increases the optimization results. The paradigm of vehicle technology has been improved and also provides opportunity for emerging the research opportunities in vehicle technology has been qualified and quantified between previous educational policy and NEP 2020. A modern Vehicles technology implementation is also viewed by using the NEP 2020 vision.***

Keywords: NEP 2020, Vehicle Technology, AI, Merits, Paradigm

1. Introduction

Every component embedded with both positive and negative opportunities in three views such as historical, current and future. In the period of 2020 - 22 the COVID - 19 pandemic situation created problems for all employees and also technology. The educational system was dropped with the student knowledge and the results. To overcome this the National Educational Policy (NEP 2020) was existed in the nation it was the long standing education means it covers with syllabus along with general knowledge for the students including faculties. This paper attempts to view the vehicle changes by technology with the help of NEP 2020 in India.

The vehicle technology is dynamic because it as evolution in it by improving the features. Especially the mechanical engineers along with software engineers was addicted to the working of the vehicle techno but the current education system as made all various programme students to enhance the vehicle technology. the vehicle techno is shifted from Internal Combustion Engine to Electric Vehicles is the past decade news. But currently there are some Vehicle runs without the human that is Autonomous vehicles evolved with the aid of Artificial Technology. Where AI Program will in pre - defined in the vehicle so it just works automatically without any human behaviour. But it works accordingly to the human instruction. These paper we are reviewing about the improvement of vehicle technology paradigm with the help of NEP 2020.

2. Review Literature

Under the NEP 2020 education the AI concepts is focused heavily to improve the technology mind for the students. The automotive vehicles are rapidly evolved by driverless cars especially. The Main tool is Artificial intelligence which is developing this self driving projects. The concepts are already in the practical use in some of the company such as Telsa autopilot and GM Super cruise Control. The testing of autonomous driving system is using object detection system to track over the Route map. The sublevel tool of ODS is google which is successfully testing its concept of vehicle. There are still working on the advancement of the vehicle automation technology.

3. Current Status and Research

Currently the concept of electrical vehicles is already in the practical usage. Example, Tesla and General Motors has been successfully launched in market and also most of the consumers are using it. Simultaneously the autonomous vehicles are also evolved and available like Tesla autopilot and GM super cruise control. AI tool known as object detection system as familiar name YOLO - you only look once has been introduced with the autonomous driving system for tracking the location. Along with YOLO the Google company is also merge to make successful testing in the location tracker.

According to Waymo research the planning is done to launch self - driving trucks to deliver the goods. Some companies Aston Martin launched its concept car Lagonda Vision as an electric and autonomy car. The Renault has launched the autonomous car called as SYMBIOZ with high level of mode.

4. Education Involvement in Vehicle Technology

The old education policy is the National Policy on Education of 1986 called as NPE 1986, and the new education policy is the National Education Policy 2020 called as NEP 2020. The main difference between the education systems is the landmark policy of the outlined framework for education in India. Even some key features are also having difference among the education systems. Likely NPE 1986 was aimed to provide the free and compulsory education for all children of 6 - 14 age groups. Provide the Vocational Education is to build the gap between education and employment and Curricular Reform is to reduce curriculum load and to enrich

to promote a child for learning. Likely NEP 2020 is aimed to provide the free and compulsory education for all children of 3 - 6 age groups to develop the holistic, involve critical thinking, and improve in the experiential learning. It promotes a multidisciplinary approach, by allowing the students to choose the subjects from different field or department. Very important thing it encourage all language medium of education.

NPE 1986 involvement in Vehicle Technology:
It is a comprehensive policy that introduces several key changes and focused on transforming of the vehicle technology like yearly wise

1992: Electromagnetic parking sensors
It alerts while parking the vehicle. It is re - invented from previous technology of 1970's. but the old technology was not much taken.

1996: Connected Vehicle
The Vehicle will be track over the mobile phones by using the linking technology. Through the mobile call the Vehicle drivers can be contacted.

2000: GPS
It is used to track the vehicle GPS or Location. So it will be useful in all time of situations. Especially in the emergency it will be very needed.

2000: Hybrid Vehicles
It support both features of electric and non - electrical vehicles. Some vehicles was driving with both electrical charges as well as petrol motors.

2001: Bluetooth
Through Bluetooth connection the vehicles can be connected over the mobile phones or among vehicles also can be connected each other.

2002: Reversing camera
This is the best technology to prevent many reversing mishap. It consist of mini camera at the behind of the car to record stream live footage of the area will reversing.

2003: Automatic parking
It is an Intelligent parking Assist that helps the driver to park the vehicle parallel wise in the parking area.

2010: Driver assist features
It is an automatic technology features to assist the driver. Example: GPS, Alert of destination, Alert of blind spot, Alert of traffic.

2014: 4G wi - fi hotspots
It is the new technology that vehicle travelling with 4G router, means passengers use it to connect smart devices to the Internet.

2019: Bio Metric
It is the best security measures in the vehicle used for authentication. But still it as drawback in case if the finger prints does not match the vehicle does not start up. Drawback of these system that fingerprints can be manipulated to unlock and start a vehicle also.

2020: Self - driving Vehicles
In the year 2020 the self - driving vehicle was completely developed and the first driverless ride was on the public roads.

2021: Advanced Heads up display
Heads up display it a luxury feature to increase the accessibility between smartphones and compatible vehicle.

NEP 2020 involvement in Vehicle Technology:
Digitalization: A growing number of auto makers with progressive technology like AI, 5G, and VR/AR/MR in their vehicles.

1) **Electric power:** E - vehicle progess to gain a greater share of automative to global efforts to curtail climate change and cut carbon emissions.
2) **Usage - based insurance:** More Technology usage like AI and telematics that collect a wide range of driver data, including speed, hard - braking frequency, and areas driven through most often.
3) **Car connectivity:** The main draw of vehicle connectivity is the enablement of over - the - air updates (OTA). An IDC report indicates that 90% of all new vehicles in the US, along with 70% of light - duty vehicles and trucks globally, will be embedded with connectivity capabilities
4) **Vehicle interfaces:** It is the main tool to improve the safety and comfort of the vehicle. Vehicle was manufactured with Augment Reality and Machine learning features that includes the Interactive driver controlling or monitoring, projections of the traffic, navigation information and health tracking of driver and consumer.

5. Conclusion

There have been many advancements in the vehicle technology in the auto industry. The amounts of improvement to automotive technology. To makes the vehicle to easier driving and operate with high performance, safer and perform better. The results being vehicle have become a very popular all over the world and continue to get better with technology. Vehicle not only growing technology, they are fun to drive, they are the most common and efficient method to travel for short distance and its important that people utilize the AI technology of vehicle.

References

[1] Colclough, C., & De, A. (2010). The impact of aid on education policy in India. International Journal of Educational Development, 30 (5), 497 - 507.
[2] Katrak, H. (1997). Developing countries' imports of technology, in - house technological capabilities and efforts: an analysis of the Indian experience. Journal of Development Economics, 53 (1), 67 - 83.
[3] NEP must partner with ed - tech start - ups to achieve desired outcomes: IAMAI", Neha Alawadhi, September 25, 2019, Aavailable at: https: //www.businessstandard. com/article/companies/nep - must - partner - with - ed - tech - start - ups - to - achieve - desired - outcomes - iamai - 119092500891_1. html, Last Accessed on: August 17, 2020.

[4] Cooper, A., and Moseley, P. (2013). "Progress in the Development of Lead - Acid Batteries for Hybrid Electric Vehicles, " in Proceedings of the IEEE Vehicle Power and Propulsion Conference (Windsor, UK, 1 - 6.
[5] Hannan, M. A., Lipu, M. S. H., Hussain, A., and Mohamed, A. (2017). A Review of Lithium - Ion 2nd Battery State of Charge Estimation and Management System in Electric Vehicle Applications: Challenges and Recommendations. Renew. Sustain. Energy Rev.78, 834 - 854. doi: 10.1016/j. rser.2017.05.001
[6] Kramer, B., Chakraborty, S., and Kroposki, B. (2016). "A Review of Plug - In Vehicles and Vehicle - To - Grid Capability, " in Proceedings of the 34th IEEE Industrial Electronics Annual 90 bi Conference, Orlando FL, USA, 2278 - 2283.10 - 13.
[7] Norgard, P. B., Camacho, O. M. F., Rao, N., and Mihet - Popa, L. (2014). Electric Vehicle Batteries Testing in a Distribution Network Using Sustainable Energy. IEEE Trans. Smart Grid 5, 1033 - 1042. doi: 10.1109/TSG.2014.2299064
[8] https: //www.aicte - india. org/sites/default/files/Model_Curriculum/fINAL%20 - %20NEP%202020%20Model%20Syllabus%20for%20 Open%20Electives%20in%20Electric%20Vehicles. pdf