Self-Driving Electric Vehicle Market By Level of Automation (Level 1, Level 2, Level 3), By Vehicle Type (Passenger Cars, Commercial Vehicles), By Type (Battery Electric Vehicles, Plug-in Hybrid Electric Vehicles, Fuel Cell Electric Vehicles): Global Opportunity Analysis and Industry Forecast, 2021-2031

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Report description:

Self-driving electric vehicles are vehicles that use electricity to run and have autonomous driving systems to reduce the number of casualties and increase safety and improve comfort. Self-driving plug-in electric vehicles use an internal combustion engine (ICE) and an electric motor. They can be charged from an electricity source. Battery energy is recharged by ICE, wheel movement, or by connecting to a charging station. The power required to power the vehicle is stored in a large battery pack that can be recharged by connecting to mains power. A charged battery pack powers one or more electric motors to power an electric vehicle.There is a rise in the demand for autonomous features in plug-in hybrid vehicles to eradicate human error and increase safety and comfort. Hybrid technology offers a significant amount of electrical power required for self-driving sensors and computing systems without having a considerable impact on the mileage.

Moreover, manufacturers develop plug-in hybrid vehicles with various levels of automation to enhance mobility. For instance, Volvo group provides XC40 Recharge, XC60 Recharge, XC90 Recharge, V60 Recharge, and other self-driving plug-in hybrid vehicles. The vehicles are equipped with forward collision warning with automatic braking, blind spot monitoring, rear cross-traffic alert, lane keeping, and others.

Fuel cell electric vehicles are vehicles that use "fuel cell technology" to generate the electricity needed to power their vehicles. A fuel cell generates electricity through chemical redox reactions using, generally, oxygen from the air and compressed hydrogen. The chemical energy of the fuel is converted directly into electrical energy. These vehicles are powered by hydrogen. Fuel-cell electric vehicles are a suitable alternative to combustion engines.

FCEVs are also called zero-emission vehicles. The shift towards environmentally friendly vehicles from traditional vehicles to curb emissions is expected to drive the growth of the segment in the market. Moreover, an increase in the development of self-driving

fuel cell electric commercial vehicles to check the feasibility of fuel cell-powered autonomous public transportation in the future. For instance, in August 2019, Spectronik, a Hydrogen PEM fuel cells developer, and Moovita, a Singapore-based smart mobility solutions provider announced the launch of the world's first proof-of-concept of an autonomous shuttle powered by hydrogen fuel cells.

The vehicle is powered by Spectronik's 10kW liquid-cooled fuel cell automotive power system, with Moovita lidar, cameras, and his GPS for autonomous driving. Moreover, Toyota Motor Corporation provides self-driving fuel cell electric vehicle MIRAI with level 2 automation, equipped with features such as Blind Spot Monitor (BSM) * with Rear Cross-Traffic Alert (RCTA), and others

The self-driving electric vehicle market is segmented on the basis of level of automation, vehicle type, type, and region. Based on level of automation, it is segmented into Level 1, Level 2, and others. On the basis of vehicle type, it is classified into passenger cars, and commercial vehicles. By type, it is categorized into battery electric vehicles, plug-in hybrid electric vehicle, and fuel cell electric vehicle. By region, the market is analyzed across North America, Europe, Asia-Pacific, and LAMEA.

Some major companies operating in the self-driving electric vehicle market include Tesla, BMW AG, Volkswagen AG, Ford Motor Company, Volvo Group, Daimler AG, General Motors, TOYOTA MOTOR CORPORATION, HONDA MOTOR Co. LTD, and Hyundai Motor Company

Key Benefits For Stakeholders

-This report provides a quantitative analysis of the market segments, current trends, estimations, and dynamics of the self-driving electric vehicle market analysis from 2021 to 2031 to identify the prevailing self-driving electric vehicle market opportunities.

-The market research is offered along with information related to key drivers, restraints, and opportunities.

-Porter's five forces analysis highlights the potency of buyers and suppliers to enable stakeholders make profit-oriented business decisions and strengthen their supplier-buyer network.

-In-depth analysis of the self-driving electric vehicle market segmentation assists to determine the prevailing market opportunities.

-Major countries in each region are mapped according to their revenue contribution to the global market.

-Market player positioning facilitates benchmarking and provides a clear understanding of the present position of the market players.

-The report includes the analysis of the regional as well as global self-driving electric vehicle market trends, key players, market segments, application areas, and market growth strategies.

Key Market Segments

By Vehicle Type

- Passenger Cars
- Commercial Vehicles

By Type

- Battery Electric Vehicles
- Plug-in Hybrid Electric Vehicles
- Fuel Cell Electric Vehicles

By Level of Automation

- Level 1
- Level 2
- Level 3

By Region

- North America
- U.S.
- Canada
- Mexico
- Europe
- France
- Germany

- Italy
- UK
- Rest of Europe
- Asia-Pacific
- China
- Japan
- India
- South Korea
- Rest of Asia-Pacific
- LAMEA
- Latin America
- Middle East
- Africa
- Key Market Players
- Tesla
- TOYOTA MOTOR CORPORATION
- HONDA MOTOR CO.,Ltd
- General Motors
- hyundai motor company
- Volkswagen AG
- Ford Motor Company
- Daimler AG
- BMW AG
- Volvo Group

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