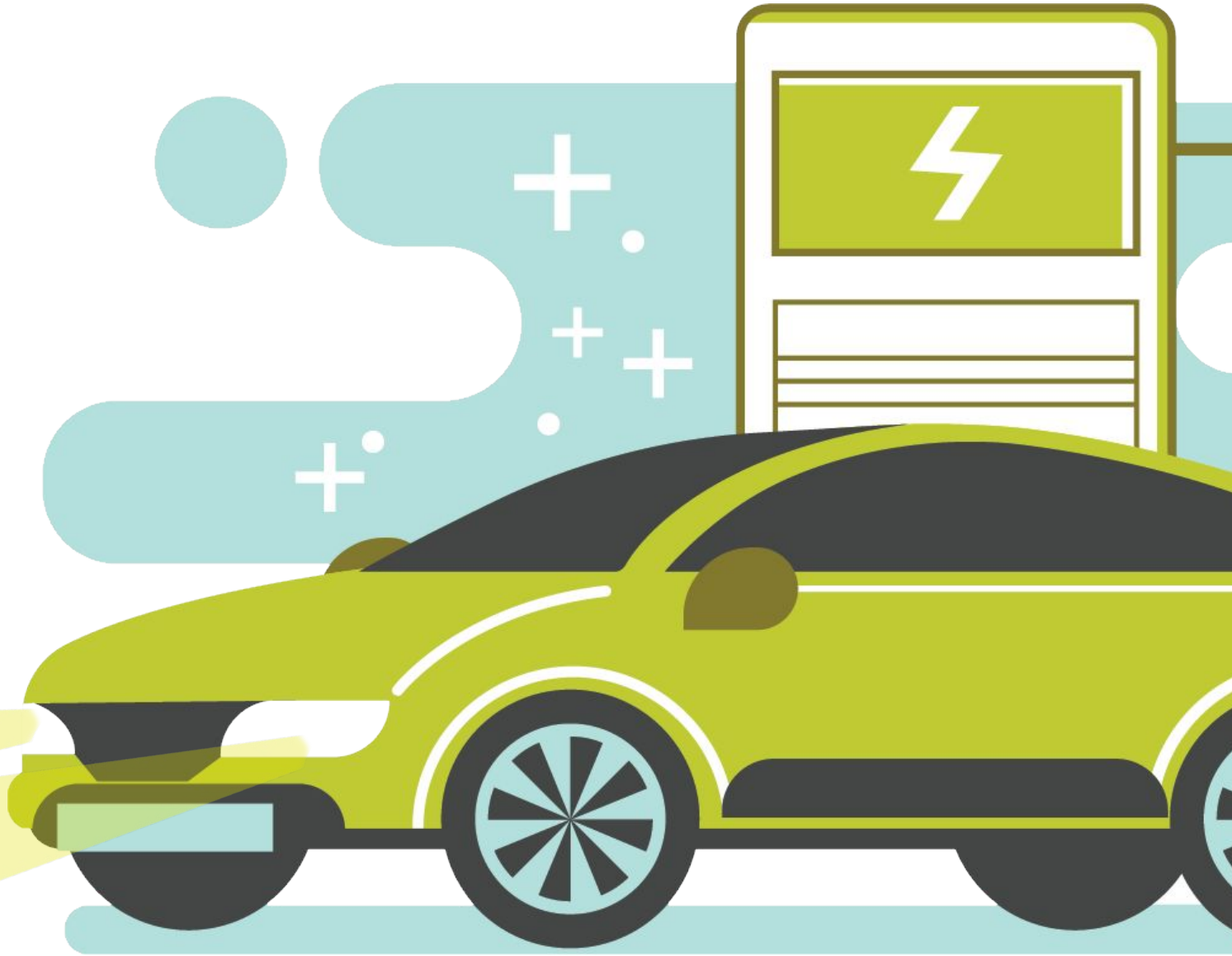
ASTANA IT UNIVERSITY

Electric Car

English for academic purposes



Ayypkhan Madiyar

Group:CS-2130

Instructor:Madina Baizhanova

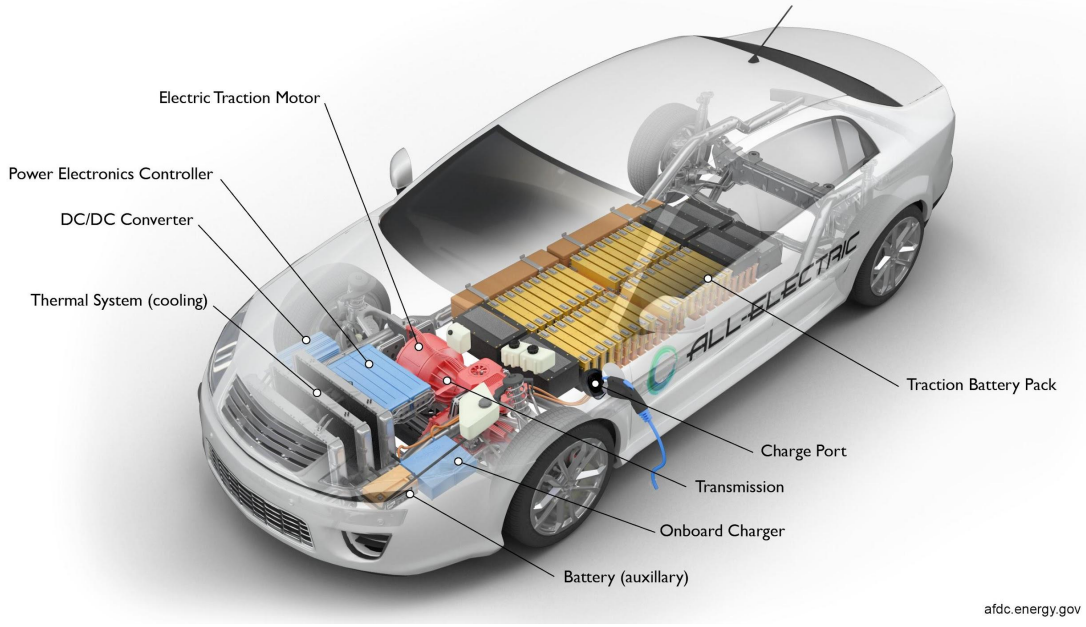
Part I.Definition of your chosen invention

All-electric vehicles (EVs), also referred to as battery electric vehicles, have an electric motor instead of an internal combustion engine. ... Because it runs on electricity, the vehicle emits no exhaust from a tailpipe and does not contain the typical liquid fuel components, such as a fuel pump, fuel line, or fuel tank.

How is it work?

- **Electric Engine/Motor** - Provides power to rotate the wheels. It can be DC/AC type, however, AC motors are more common.
- **Inverter** - Converts the electric current in the form of Direct Current (DC) into Alternating Current (AC)
- **Drivetrain** - EVs have a single-speed transmission which sends power from the motor to the wheels.
- **Batteries** - Store the electricity required to run an EV. The higher the kW of the battery, the higher the range.
- **Charging** - Plug into an outlet or EV charging point to charge your battery.

All-Electric Vehicle



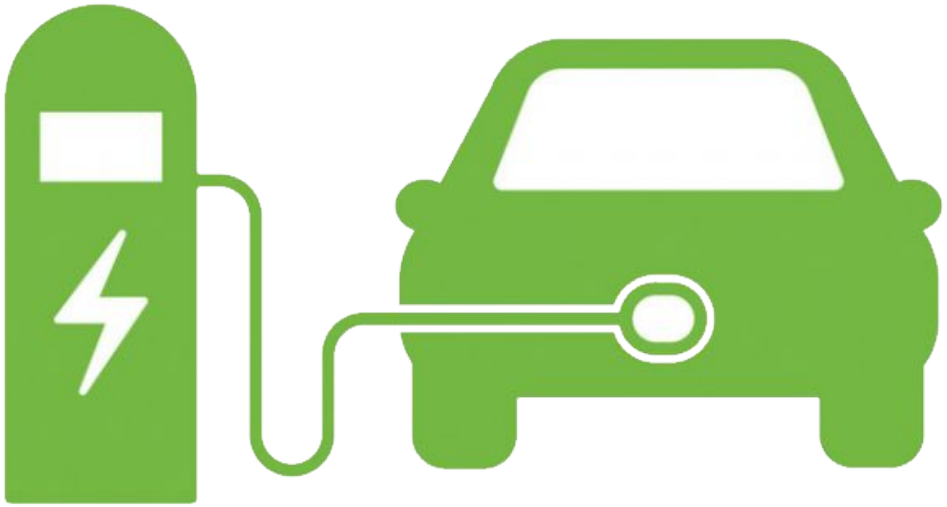
afdc.energy.gov

When and where was your invention created?

William Morrison

William Morrison was an inventive fellow. He patented an automatic regulator for electricity, and a way for making battery storage plates. In 1890, a carriage company built him a special surrey with space for 24 storage batteries he designed. This enabled him to experiment with America’s earliest electric vehicles.Each cell weighed 32 pounds so we are confident they were lead-acid ones. The set of 24 produced 112 amps at 58 volts and took 10 hours to fully charge from flat.

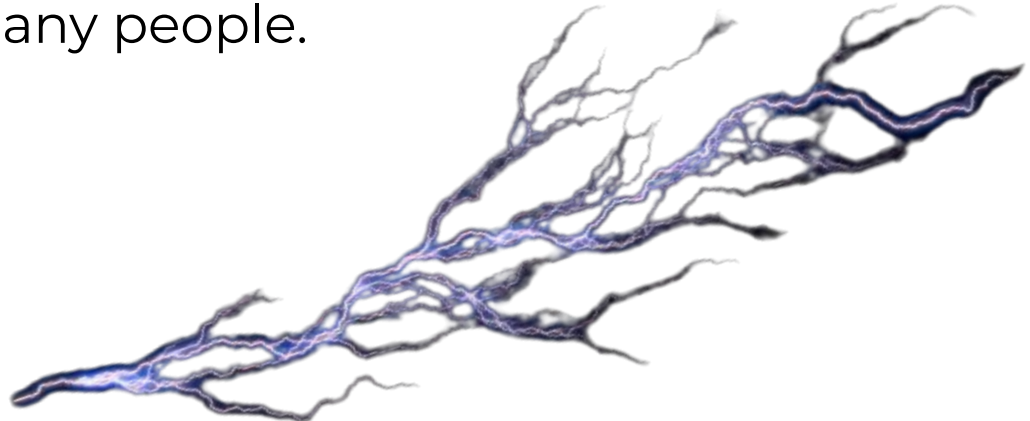
How does your invention make life better or easier?



- They are better suited for the environment
- Electricity can be a renewable resource, gasoline is not
- They require less expensive and less frequent maintenance.
- They are quieter than gas cars
- Owners of electric vehicles are provided with tax benefitsIn some places there are special traffic lanes for electric vehicles.
- They can change our world for the better

Has your chosen invention changed over time? How?

My chosen invention has not changed and has its own potential in the market among large ideas. My chosen invention is the energy of the future and will be this for many years to come. Because today our planet is very dirty, there are many ecological places. This spoils the lives of many people.



The effect of the electric car on nature

pros

- They Are Better for the Environment. ...
- Electricity Can Be a Renewable Resource, Gasoline Cannot. ...
- They Require Less Expensive and Less Frequent Maintenance. ...
- They Are Quieter Than Gas Vehicles. ...
- There Are Tax Credits Available for Owners of Electric Cars. ...
- There Are Special Highway Lanes in Some Places for Electric Cars

cons

- Electric cars have a shorter range than gas-powered cars.
- Recharging the battery takes time.
- They are usually more expensive than gas-powered cars.
- It can sometimes be difficult to find a charging station.
- There aren't as many model options

What is the possible social effect of the invention you have chosen?

People will appreciate what is in their hands and will take care of nature. The electric car allows us to love our nature and preserve the boundless steppes and seas. An electric car will save the most important minutes in a person's life. This invention is not a pest for people and the environment

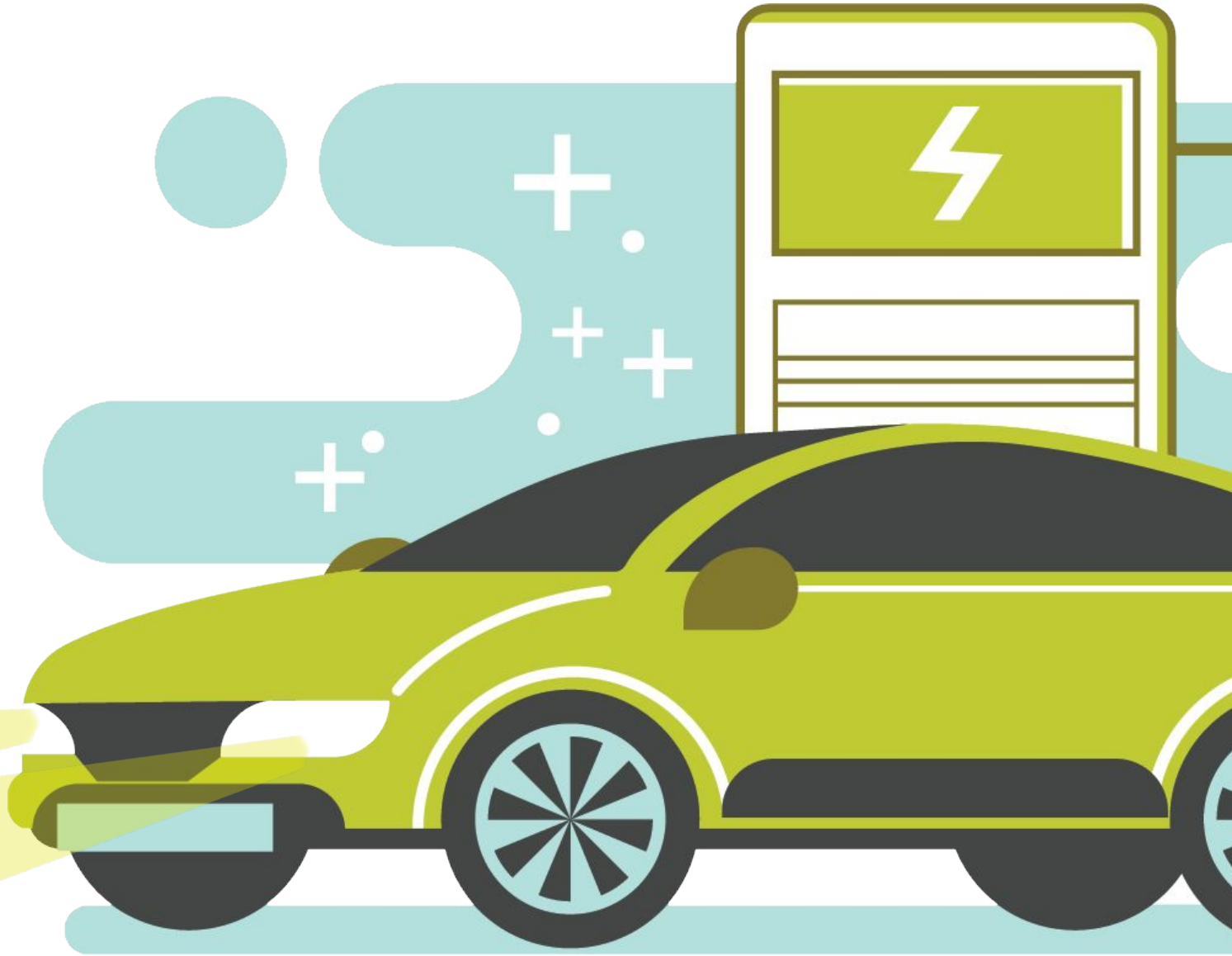
Why did you choose this invention?

Because now this invention is very relevant. Global companies are already going to invent many types of electric vehicles. Now people have paid attention to the surrounding environment and have begun to appreciate it. The electric car is very smart and comfortable for a person. This is the future. If this continues, then people will already start inventing flying machines. An electric car is a very smart and safe means of transport

ASTANA IT UNIVERSITY

Electric Car

English for academic purposes



Ayypkhan Madiyar

Group:CS-2130

Instructor:Madina Baizhanova

Content

- What is the electric car?
- History
- The effect of the electric car on nature
- Companies in a new field
- Conclusion

Definition

An **electric car** or battery electric car is an automobile that is propelled by one or more electric motors, using energy stored in batteries. Compared to internal combustion engine vehicles, electric cars are quieter, have no exhaust emissions, and lower emissions overall.

Inventor

William Morrison

- Dentist
- Developer

History

William Morrison, from Des Moines, Iowa, creates the first successful electric vehicle in the U.S. His car is little more than an electrified wagon, but it sparks an interest in electric vehicles. This 1896 advertisement shows how many early electric vehicles were not much different than carriages. **William Morrison**, from Des Moines, Iowa, creates the first successful electric vehicle in the U.S. His car is little more than an electrified wagon, but it sparks an interest in electric vehicles. This 1896 advertisement shows how many early electric vehicles were not much different than carriages.

In 1959, the Ulyanovsk Automobile Plant produced its first electric car, the UAZ-450EM. It was designed to operate at airfields.

15 years later, the engineers of the plant again turned to the topic of electric transport. In 1975, five electric vehicles of the U-131 model with an AC power system were produced in Ulyanovsk. In 1977, the UAZ-451MI model appeared.

The effect of the electric car on nature

pros

- They Are Better for the Environment. ...
- Electricity Can Be a Renewable Resource, Gasoline Cannot. ...
- They Require Less Expensive and Less Frequent Maintenance. ...
- They Are Quieter Than Gas Vehicles. ...
- There Are Tax Credits Available for Owners of Electric Cars. ...
- There Are Special Highway Lanes in Some Places for Electric Cars

cons

- Electric cars have a shorter range than gas-powered cars.
- Recharging the battery takes time.
- They are usually more expensive than gas-powered cars.
- It can sometimes be difficult to find a charging station.
- There aren't as many model options

Companies in a new field

There are many competitors in this area, but the main manufacturer of electric vehicles is Tesla, founded by Elon Musk. In 2019, Tesla became the largest electric vehicle manufacturer in the world. The Tesla Model 3 sedan became the best-selling electric car in history, breaking the 800,000 mark.

In 2021, Tesla came out on top in terms of capitalization among automotive companies, surpassing Japanese automaker Toyota.

Now Tesla's fortune is counted at $ 22 billion.

Elon Musk

Conclusion

Exhaust gases pollute the atmosphere - it is a well-known fact. In addition, gasoline and diesel engines create a greenhouse effect on the Earth's surface. The use of electric vehicles does not imply such problems, which significantly affects the preservation of the environment. The negative impact of electric cars on the environment - 0%;

Step by step

Electric vehicles are very good for the environment because of their environmental friendliness and economy. In our time, there are very few earth resources left. And electric cars are a great solution to get out of this situation. It charges itself with the help of the sun and this is already the future

Imagine that the only source of energy that we have at our disposal is the Sun. A tiny percentage of the area of Spain can power the whole of Europe." (Business Insider).

References

Timeline, M. A. (2019, May 15). *Electric car*. Energy.Gov. https://www.energy.gov/timeline/timeline-history-electric-car

Johnson, M. J. (2020, February 17). *What is a hybrid car?* News.Motors.Co.Uk. https://news.motors.co.uk/electric-cars-guide/

Deeney, A. D. (2012, September 15). *Electric cars work*. Afdc.Energy.Gov. https://afdc.energy.gov/vehicles/how-do-all-electric-cars-work

Grealish, S. H. (2017, March 15). *What are electric cars?* Ucsusa.Org. https://www.ucsusa.org/resources/what-are-electric-cars