

**МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ  
СУМСЬКИЙ ДЕРЖАВНИЙ УНІВЕРСИТЕТ  
КАФЕДРА ІНОЗЕМНИХ МОВ  
ЛІНГВІСТИЧНИЙ НАВЧАЛЬНО-МЕТОДИЧНИЙ  
ЦЕНТР**

**МАТЕРІАЛИ  
X ВСЕУКРАЇНСЬКОЇ НАУКОВО-ПРАКТИЧНОЇ  
КОНФЕРЕНЦІЇ СТУДЕНТІВ, АСПІРАНТІВ ТА  
ВИКЛАДАЧІВ  
ЛІНГВІСТИЧНОГО НАВЧАЛЬНО-МЕТОДИЧНОГО  
ЦЕНТРУ КАФЕДРИ ІНОЗЕМНИХ МОВ**

**“WITH FOREIGN LANGUAGES TO MUTUAL  
UNDERSTANDING, BETTER TECHNOLOGIES AND  
ECOLOGICALLY SAFER ENVIRONMENT”**

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## WITH NEW TECHNOLOGIES IN A CLEAN FUTURE

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Nowadays, we have a lot of problems dealt with environment. A lot of plants, factories and cars all over the world throw harmful substances into the air every day. Many countries use alternative sources of energy, like hydro, solar, wind energy instead of old one, that pollute our nature.

Today, in time of great inventions and discoveries, scientists develop new kinds cars that have an electric engine. An example is an American automotive and energy storage company that designs, manufactures, and sells luxury electric cars, electric vehicle, powertrain components, and battery products. As you know, it is called Tesla Motors. It was incorporated in July 2003 by Martin Eberhard and Marc Tarpenning.

This company solves the problem of exhaust gases that damage our environment. And due to outstanding scientists, Tesla Cars will not pollute our nature. As it was mentioned before, these cars use an electric engine that converts electrical energy into mechanical energy. Tesla uses three-phase asynchronous electric motor with AC (variable) voltage. Unlike some other motors that use permanent magnets, this motor is based on the magnetic field, created by the electricity.

Despite of rather small size of this engine (22 centimetres in size) light weight (about 68 kilograms) and the total weight of power unit (with rotor and inverter) is about 136 kilograms, its horsepower is 416, it can develop about 16 000 revolutions per minute, and the maximum speed of it is about 210 kilometres per hour.

Unfortunately, such engine its disadvantages. First of all, you should charge the batteries very often, depending on the type of batteries you use, they must be replaced every 3-10 years, and they are very expensive in maintenance.

There is an interesting thing about the engine of the Tesla Motors – it is not patented. It means that you can use their technologies and make something new or develop their ideas.

So, technology grows quickly, and, it gives us the chance to think, that in future we will not worry about such problems as pollution.