

energy is then used to recharge the car's battery. This system can help extend the car's range, reduce the need for frequent charging, and improve overall efficiency.

Overall, modern charging systems have made owning and driving an electric car more convenient and accessible for a wider range of drivers. As technology continues to advance, we can expect even more improvements in the speed and accessibility of electric car charging systems.

ENVIRONMENTAL PROTECTION AND THE DEVELOPMENT OF MODERN GREEN TECHNOLOGIES

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Nowadays, a sharp deterioration of the environment has become one of the serious problems. The reality of modern life in Ukrainian cities is polluted atmospheric air and a huge amount of household waste. All over the world, people are facing many new and complex environmental "failures". Some of them are small and affect only a few ecosystems, others dramatically change the conditions of our lives. Only now the concept of ecological architecture has begun to emerge in the mass consciousness.

To solve this problem, it is necessary to develop and popularize "green" construction in the country, the main principle of which is to achieve energy efficiency during construction.

Green construction - is a type of building construction and operation that involves minimal impact on the environment. Its goal is to reduce the level of consumption of energy and material resources during the entire life cycle of the building: from site selection to design, construction, operation, repair and demolition. This is achieved due to energy efficiency and constant growth in the quality of construction works.

Green architecture is becoming more and more popular every year. Architects and designers implement the most incredible projects. People seek to purchase housing that will allow them to follow the principles of environmental sustainability.

There is a number of motivations for green construction, including environmental, economic and social benefits. However, today's sustainability initiatives require integrated and synergistic design for both new construction and retrofitting of existing structures. Also known as sustainable design, the approach integrates the life cycle of a building with every green practice used for design purposes.

Green construction integrates a wide range of practices, methods and skills to reduce and ultimately eliminate the impact of buildings on the environment and human health. It often emphasizes taking advantage of renewable resources, such as the use of sunlight through passive solar, active solar and photovoltaic equipment, as well as the use of plants and trees through green roofs, rain gardens and reducing stormwater runoff. Many other methods are used, such as reusing construction materials or using packed gravel or pervious concrete instead of regular concrete or asphalt, to enhance groundwater recharge.

There are several key steps in designing environmentally friendly buildings:

- selection of "green" construction materials;
- optimization of energy-saving systems;
- on-site renewable energy generation;
- correct methods of waste disposal;
- a heating/cooling system that is comfortable and healthy for humans. With the help of radiating surfaces that transfer heat to a person directly with the help of waves, without preheating the air;
 - energy savings due to "warm" walls, i.e. walls that are properly and well insulated;
 - interior decoration of buildings and houses with clay plaster, wood, linoleum from natural materials. This treatment ensures sufficient humidity in a room (about 50 percent), which is necessary for the health of the human respiratory tract;
 - creation of supply-exhaust ventilation, which ensures a constant flow of clean air without the effect of a draft.

There are several international certification systems for "green" construction. The main ones are LEED and BREEAM, the task of which is to assess the level of energy and environmental efficiency of a building. The following parameters are taken into account: electricity and water consumption, air quality, lighting level, noise insulation, waste management, etc. In general, with the exception of a few nuances of the system, they are quite similar.

The principle of the American LEED certification is that the level of greenness of a building is evaluated by a group of experts, each of whom is responsible for their sector. The audit takes place twice - at the design stage and directly during the handover of an object, when the certificate is issued. This system has strict mandatory requirements.

British BREEAM certification is considered to be more flexible, as some points can be offset by alternatives. All responsibility rests with the appraiser, who checks all the necessary points and sends the report to the UK, where it is independently audited. In the BREEAM system, the certificate is issued twice (for the project itself and for its completion).

Environmental problems are local, regional and global in scale. Cities are increasingly responsible for global environmental damage. The need for decisive action becomes more acute every day. One of the most effective ways is to transform our cities into compact, interconnected green oases powered by water, wind, sun and earth itself.

In the future, ecological architecture should become the norm for all urban buildings. It is important to continue reducing wasteful consumption and promoting circular reuse of materials in the economy by maximizing the value of our resources to make resource recovery common practice.

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**ANALYSE UND KLASSIERUNG DIE SCHADSTOFFE, DIE
AUTOSTRANSPORT AUSWIRFT, UNTER BERÜCKSICHTIGUNG DES
CHARAKTERS DER KRANKHEIT DER BEVÖLKERUNG**

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In den letzten Jahren sind die Probleme der Ökologisierung von Kraftfahrzeugen immer akuter und drängender geworden. Die gestiegenen Bedürfnisse der Menschheit im Individualverkehr und der Betrieb von Staatsfahrzeugen haben spürbare Auswirkungen auf die Umwelt. Der Straßenverkehr ist einer der Hauptverschmutzer der Umwelt, insbesondere der Atmosphäre, und einer der größten Kraftstoffverbraucher der Welt. In der Ukraine sind dies hauptsächlich Autos mit Benzinmotoren, deren prozentualer Anteil 85 % der Gesamtzahl ausmacht, Diesel (13 %) und Gasflaschen (< 1,5 %).

In vielen Ländern der Welt wird in diese Richtung geforscht, was die Brisanz des Themas bestätigt, so forschte beispielsweise der Deutsche Verkehrsverbund in den letzten Jahren zur Umweltbewertung von Autos nach graduellen Kriterien schädliche Auswirkungen auf die menschliche Gesundheit einzelner Bestandteile von Abgasen. Basierend auf den Forschungsergebnissen wurde festgestellt, dass krebserregende Stoffe den ersten Platz einnehmen. Mediziner gehen davon aus, dass der Anteil krebserregender Stoffe am Risiko bösartiger Tumore in Großstädten bei ~ 85 % liegt.

In den USA wurde die Mutagene Aktivität von Feststoffpartikeln untersucht. Es wurde festgestellt, dass die Mutagene Aktivität von Abgasen aus Dieselmotoren um eine Größenordnung höher ist als die von Autos mit Benzinmotoren (pro Kilometer Laufleistung) [1].