

## In Russia, a neural network was developed to search for cracks in buildings and bridges

Scientists of the Ural Federal University have created a neural network capable of quickly detecting cracks and other damage to the infrastructure. The system is designed to analyze data from drones and can be used in the examination of bridges, roads, buildings and other important objects.

The main feature of the new development is the use of the principle of focusing similar to the work of human vision. This allows artificial intelligence to more accurately process videos, as well as take into account infrared images. This approach helps to detect defects that are invisible during conventional shooting. On real data from Russia and China, the system showed an accuracy of almost 89 percent.

Now the state of infrastructure is mainly monitored manually. Inspection of a large object requires at least three specialists, and in hard-to-reach places it is often necessary to attract climbers. Even when using drones, specialists still need to view a large amount of footage.

Development allows you to replace long manual checks, accelerate diagnosis and reduce service costs.