



TECHNOLOGIES FOR THE FAST RESTORATION OF DESTROYED STRUCTURES, BUILDINGS AND FACILITIES

TRL 4

**DNIPRO UNIVERSITY
of TECHNOLOGY
1899**

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PROJECT ESSENCE

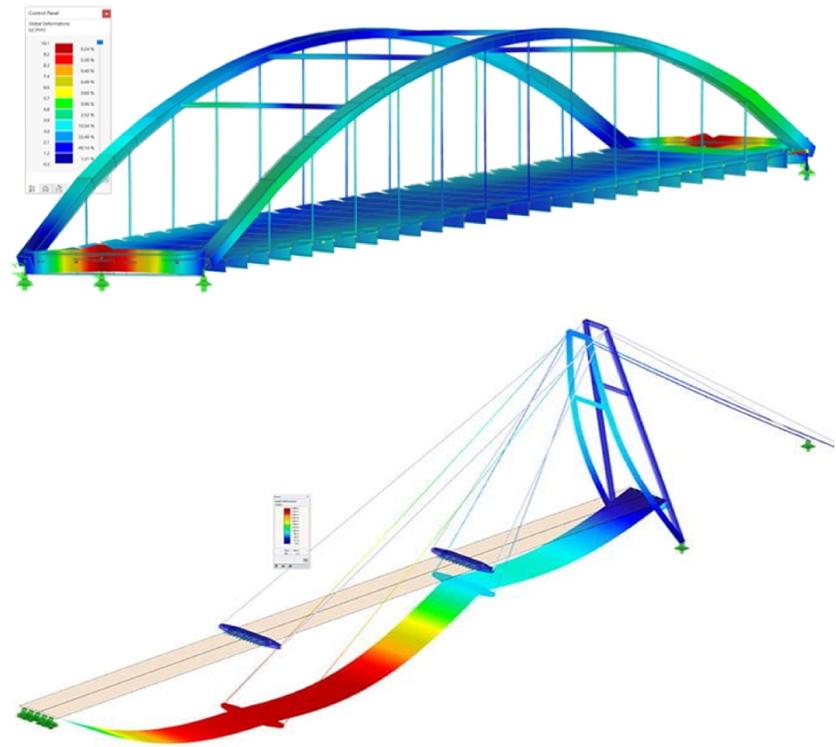
The reconstruction of structures, buildings and facilities destroyed as a result of military operations is an important component of the country's defense capability and economic recovery. Residential, industrial and logistics facilities require rational and efficient solutions to put them back into operation as soon as possible. This is possible through the introduction of scientifically based restoration technologies. The proposed technologies for the fast restoration of destroyed capital structures, buildings, and facilities are based on the implementation of a new concept of their construction using multilayer composite rope cables of a given traction capacity and are based on the establishment of laws of force interaction of their multi-parameter structural components.

APPLICATION AREA

The use of new materials and technologies in the restoration of destroyed structures, buildings and facilities, including the use of composite rope cables for the rapid restoration of destroyed infrastructure.

FINAL PRODUCT

Restored structures, buildings and facilities using high-tech composite cable-stayed ropes. Solving the problem of rapid restoration of the destroyed critical infrastructure as one of the most important components of the state policy on ensuring the defense capability and national security of Ukraine.

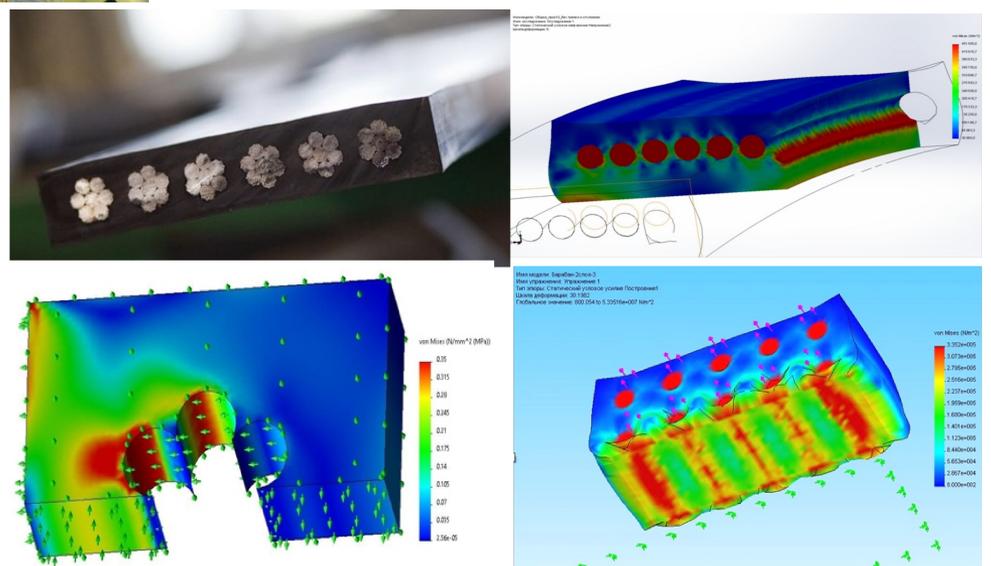


APPLICATION FEATURES

- Use of new scientifically based design solutions for multilayer elastomeric cable ropes for holding steel and reinforced concrete structures during the restoration of destroyed structures and facilities;
- Industrial production of components for reconstruction;
- Significantly lower metal consumption of structures due to the use of ropes to reduce time and costs during reconstruction and construction;
- Instead of destroyed, heavier load-bearing structures, up to 3-4 times less material-intensive and less expensive ones are manufactured and installed, significantly (up to 4 times) reducing the time and cost of restoring the structure.

ECONOMIC AND INVESTMENT ATTRACTIVENESS

Significant reduction in the cost of manufacturing, installation and restoration of structures. Creation of a scientific and technical product that is competitive in the global market and is the basis for the development of high-tech production, urban and industrial construction. The development of domestic production of composite wire ropes contributes to the creation of new jobs and economic stability of the country.



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