

A list of the main scientific results that made it possible to achieve the impact of

1. Development of the scientific basis for technical diagnostics of passenger cars, traction, self-propelled and urban rail vehicles.

2. Introduction of bogies, parts and assemblies for traction, self-propelled and urban rail rolling stock.

The main activity of the laboratory is to conduct scientific and experimental research to determine technical parameters, expert evaluation, and technical diagnostics of passenger trailer, traction, self-propelled, and urban rail rolling stock. Therefore, the bulk of the research and development work performed by the laboratory relates to these areas.

In 2020-2024, the laboratory obtained the following main scientific results:

- 3 articles were published in professional scientific journals of Ukraine of category B;

- 6 research reports were developed and finalized.

The results of scientific research were approbated at 3 international conferences, which resulted in the publication of 4 abstracts.

In particular, the following are scientifically sound and proven, useful methodological and technical developments: justification of the decision on the feasibility of modernizing diesel locomotives and electric trains with the extension of their service lifetime until they are replaced by new rolling stock; determination of the residual life of the inspected passenger trailer, traction, self-propelled and urban rail rolling stock; determination of the technical parameters of rolling stock bogies, their components and parts; conducting scientific and technical examination of railway products and technical documentation for them in accordance with the laboratory's profile; improvement of the methodology and development of the scientific basis for performing research and development work on technical diagnostics.

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