ABSTRACT

Explanatory note size – 113 pages, contains 32 illustrations, 24 tables, 3 applications, 27 references.

Topicality. Increasing the objectivity of online creative contests, which often suffer from a high level of subjectivity, involving experts of varying professional backgrounds, as well as automating the process of organizing online painting exhibitions, is highly relevant. Only in this case can viewers trust the results of online contests and the overall effectiveness of the online exhibition organization.

The aim of the study. The main target is to simplify the organization of online exhibitions and to increase the efficiency of online contests by developing original software that employs formal models and modified decision-making methods.

The object of research: Software for conducting online exhibitions and online contests.

The subject of research: The organization of online exhibitions, as well as the models and methods used for managing online contests of artistic exhibits.

To achieve this goal, the **following tasks** were formulated:

− analysis of existing software, models, and methods for organizing creative online contests;

− formulation of requirements for the organization of creative online contests;

− development of models and decision-making methods for organizing creative online contests;

− formulation of requirements for the software system;

− justification of the chosen software architecture;

− development of software that supports the organization of online painting exhibitions and online contests;

− evaluation of the effectiveness of the proposed solution.

The scientific novelty of the results of the master's dissertation lies in the development of original models and decision-making methods for organizing online contests, as well as original software that effectively implements the proposed models and methods.

The practical value of the obtained results is that the developed software enables efficient organization of online exhibitions and online contests of artistic works, particularly paintings.

Relationship with working with scientific programs, plans, topics. Work was performed at the Department of Informatics and Software Engineering of the National Technical University of Ukraine «Kyiv Polytechnic Institute. Igor Sikorsky».

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Publications. The scientific provisions of the dissertation were published in:

1) Pavlov O.A., Kharchuk N.O. Algorithms of collective decision-making for selecting winners in painting contests // Engineering of Software and Advanced Information Technologies (SoftTech-2025): Proceedings of the VIII International Scientific and Practical Conference of Young Scientists and Students “SoftTech-2025” – Kyiv: NTUU “Igor Sikorsky KPI”, May 13–15, 2025. pp. 124–127.

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