**Requirements for CyberBattle Research works**

1. Independently prepared Research works of students in the field of cybersecurity are submitted to the Competition. Research works must be exploratory, contain elements of scientific novelty and practical value, have no awards from national and international competitions.
2. One research work can have no more than *three authors* if they have common materials on the topic of research work and one supervisor. Scientific supervisor has to give written feedback on scientific work.
3. Research work is prepared only in English in the form of specially prepared scientific work on the rights of the manuscript in electronic form.
4. Work structure:

Scientific work should have the following basic structural elements:

* title page;
* table of contents;
* keywords and list of symbols (if necessary);
* main part (introduction, sections, conclusions);
* references;
* annexes.

Each of these elements, as well as sections of the main part and annexes, should begin on a new page.

1. Additionally, as a separate file should be submitted – annotation (in English), which contain a generalized summary of research work.

*Requirements for structural elements*

1. The title page of the scientific work is prepared according to the form given in Annex 1. Contains only the code of the work (six digits and four letters of the Latin alphabet, for example, 486950JFDB - the combination is created by the author), the title of the work, the year of the Competition.
2. The table of contents should contain the names of all structural elements, headings and subheadings (if applicable) indicating the numbering and number of original pages.
3. The set of keywords should correspond to the main content of the scientific work, reflect the research topic and provide a thematic job search. The number of keywords ranging from five to ten. Keywords are given in the nominative case, in a line through a comma.
4. The list of symbols, units of measurement, abbreviations is given, if necessary, in the form of a separate list. Their explanation is given in the text at the first mention. Abbreviations, symbols, symbols that are repeated no more than twice are not included in the list.
5. The main part of the scientific work should contain the following components: introduction; sections of scientific work (three sections); conclusions.
6. The introduction provides a general description of the scientific work, namely:

* justification for choosing the topic (motivation);
* purpose and objectives of the study;
* subject and object of research;
* research methods;
* scientific novelty of the obtained results;
* practical significance of work.

1. When using research results, ideas, publications and other materials from other authors in the Research text must be a reference to the publication of these authors. Sections of scientific work can be divided into subsections (numbering consists of a section number and a serial number of the subdivision, separated by a dot). Sections, subsections are numbered in Arabic numerals.

When numbering formulas and figures, if there are references to them in the text of the scientific work, the section number and the formula number (figure) shall be affixed through a dot. The numbered formula is given in the middle of a new line (numbering - on the right side in brackets). The number and name of the figure are given at the bottom of the figure (justify), the number and title of the table is given above the table itself (justify).

The conclusions contain most important scientific and practical results of scientific work, indicate the scientific tasks and problems that can be solved by research results, as well as possible areas for further research. If there is a practical value of the obtained results, information on the use of research results or recommendations for their use is provided.

1. References formed by the author (due to his choice) in one of the following ways:

* in the order of appearance in the text;
* in alphabetical order;
* in chronological order.

The bibliographic description of references can be issued by one of the styles:

1. Harvard style.

2. IEEE (Institute of Electrical and Electronics Engineers) style.

3. Springer MathPhys Style.

1. The annex may include supporting material necessary for the completeness of scientific work:

* intermediate formulas and calculations;
* protocols and acts of tests, implementation, calculations of economic effect,
* support letters for scientific work,
* instructions and methods, description of algorithms that are not the main results of scientific work,
* descriptions and listings of computer program codes developed in the course of scientific work,
* auxiliary illustrations, including block diagrams of developed technical solutions,
* other data and materials.

1. The annotation (separate file) of the scientific work should briefly present the main results of the study, indicating the scientific novelty and practical value.

The annotation shall include:

* code of the work;
* surname and initials of the author;
* the name of the educational institution where the author studies;
* surname and initials of the scientific adviser, his place of work, position, scientific degree and academic title;
* title of scientific work;
* keywords;
* the content of the annotation;
* list of author's publications.

The annotation is up to three printed pages.

1. Scientific works submitted to the Competition with violation of the requirements are not allowed to participate in the Competition and by the decision of the commission are removed from consideration.

In this requirements Research work=scientific work.

Annex 1

156473JHYT *(code of the work)*

Methods to increase the efficiency of quantum cryptography protocols

2021

Annex 2

Preparation rules

|  |  |
| --- | --- |
| Scope of work  Font | Volume - up to 30 pages  Text editor: WORD  font - Times New Roman, font size - 12 рt  Paragraph indentation 1.0 cm |
| Spacing | A4 format (210x297 mm) with single line spacing  Main text alignment justify |
| Margins | The text of the scientific work should be printed, leaving the fields of the following sizes: left - not less than 30 mm, right - 10 mm, top - 15 mm, bottom - 15 mm |