OPINION

From Professor, Doctor of Military Sciences, Georgi Vassilev Bahchevanov, part-time lecturer at the New Bulgarian University, field of higher education 9. "Security and Defense", professional field 9.1. "National Security".

For obtaining an educational and scientific degree "Doctor" in a professional field 9.1. "National Security" with candidate Tsvetomir Emilov Aleksov.

The topic of the dissertation is: "Cyberspace as a fifth domain. State-supported and independent hacker groups. Ways and methods to counter cyberattacks of various origins.

The dissertation is 218 pages long. Structurally, the paper consists of an introduction, three chapters, a conclusion and a bibliography. 94 footnotes were made. The list of used literature includes 111 sources.

1. Significance of the researched problem in scientific and scientific-applied relation.

Information security is of strategic importance for the interests of the individual, society and the state as a whole.

All technologies create a precondition for manipulations and their use for activities that cause irreparable damage, financial losses and loss of human life.

The topicality of the topic is directly related to the need to create and implement a regulatory framework in cyberspace to build a certain type of framework of behavior in the information environment.

The importance of the research is determined by the usefulness of the analysis of hacker groups proposed by the author and their methods of action allowing to build more effective cyber defense. The analysis of the main types of cyber attacks and cyber tools contribute to the improvement of both personal protection and the protection of the corporation, the department, etc.

The topic of the dissertation corresponds to the main content of the paper.

2. Justification of the goals and tasks in the dissertation.

The author's thesis "that the penetration of technology and the constant connectivity of billions of devices on the Internet allows various hackers and hacker groups to commit acts, some of which are crimes and receive various benefits for themselves or third parties, including governments of different countries ”is a formulated problem rather than a thesis (way) for its solution.

The purpose of the research is formulated descriptively and in accordance with the topic. 5 (five) research tasks have been formulated. The tasks are specific, show logical consistency and provide a solution to the research problem.

3. Correspondence between the chosen methodology and research methodology and the set goal and tasks of the dissertation.

The methodology of the dissertation research has been chosen correctly. It is aimed both at achieving the goals and objectives of research and at proving the main research thesis. The research approaches used in the dissertation are systematic, process and others.

4. Scientific and scientific-applied contributions of the dissertation (description and evaluation), including the presence of an original contribution to science.

In the dissertation work are achieved mainly scientific and applied contributions. They can relate to the accumulation of new knowledge related to the effectiveness of an information security system.

The scientific-applied contributions contribute to the development of knowledge in the field of the dissertation topic: the general characteristics of the information security are presented, the types of threats and attacks in the information space are analyzed; a detailed classification of information security threats is proposed; a modern understanding of the nature of information operations is presented.

The applied contributions are: a security option for a corporate computer network has been proposed, including network structure design, network information protection and information security policy; an option for information security policy has been proposed in order to protect both the established computer network and its resources.

The contributions enrich the existing knowledge, prove and develop significant aspects of the existing scientific problems revealed by the author.

The dissertation contains theoretical summaries and solutions to scientific and applied problems, which represent an original contribution to the science and practice of information security.

5. Evaluation of the publications on the dissertation: number, nature of the publications in which they are published.

The publications related to the dissertation are 5 (five). These are mainly participation in international scientific conferences.

In my opinion, these publications are an essential part of the study and reflect the results obtained in it.

6. Citation from other authors, reviews in the scientific press, etc.

The practical usefulness of the dissertation is indisputable. The ideas and approaches described in it can be used to implement cybersecurity measures. According to the author, “communication networks and information systems have become an essential factor for economic and social development. The use of computers for networking is now becoming a ubiquitous utility,…. …. the security of systems, in particular their availability and operability, is becoming increasingly important to society. "

I am not aware of citations from other authors.

7. Opinions, recommendations and notes.

The results of the study are presented and shaped precisely. The dissertation is well illustrated.

In my opinion, each chapter could have started with a short introduction containing the relevant sub-thesis subordinate to the main one.

More attention should have been paid to the description of the research methodology, the formulation of the conclusions after the chapters and the contributions of the dissertation.

The dissertation has no general conclusions.

8. Conclusion with clearly formulated positive or negative assessment of the dissertation.

The dissertation developed by Master Tsvetomir Emilov Aleksov on "Cyberspace as a fifth domain. State-supported and independent hacker groups. Ways and methods for counteracting cyberattacks of various origins "in content, scope and structure meets the requirements for obtaining the educational and scientific degree" Doctor ", regulated by the Law on the Development of Academic Staff in the Republic of Bulgaria and the Regulations for its implementation.

My assessment is positive.

I offer to Master Tsvetomir Emilov Aleksov, author of the dissertation "Cyberspace as a fifth domain. State-supported and independent hacker groups. Ways and methods for counteracting cyberattacks of various origins "to award the educational and scientific degree" Doctor "in the field of higher education: 9." Security and Defense ", professional field: 9.1. "National Security".

Date …………. Signature …………

 Prof. Georgi Bahchevanov